

UNIVERSITY OF WARWICK
FACULTY OF SCIENCE, ENGINEERING AND MEDICINE EDUCATION COMMITTEE
11.00, THURSDAY 24 OCTOBER 2019
COUNCIL CHAMBER, SENATE HOUSE
MAIN AGENDA

Ref	Item	Purpose	Lead	Report Type	Open/ Restricted/ Reserved
001	Apologies for Absence				
002	Declarations of Interest Should any members or attendees of the Committee have any conflicts of interest relating to agenda items for the meeting, they should be declared in accordance with the CUC Guide for Members of Higher Education Governing Bodies in the UK, available from http://www.universitychairs.ac.uk/wp-content/uploads/2015/02/Code-Final.pdf				
003	Equality, Diversity and Inclusion				
004	Minutes of meeting held on 16 May 2019	Approval	Louise Hasler	Paper 004.SEMEC.19-20	Open
005	Membership and Terms of Reference 2019-20	Information	Louise Hasler	Paper 005.SEMEC.19-20	Open
006	Matters Arising from Meeting held on 16 May 2019				
	(a) Update on WRAP report investigating the availability and accessibility of undergraduate research opportunities at Warwick (minute 45.a.vii/18-19)	Information	Louise Hasler	Paper 006a.SEMEC.19-20	Open
	(b) Student Voice Committee (minute 46/18-19)	Information	Louise Hasler	Verbal	Open
	(c) Graduate Outcomes Data (minute 47.i/18-19)	Discussion	David Davies	Verbal	Open
Chair's Update					
007	Chair's Business and Actions (a) Education Strategy (b) Course and Module Approval (c) Peer Dialogue (d) Dyson Degree Awarding Powers	Discussion	David Davies	Paper 007.SEMEC.19-20	Open
Strategic Item					
008	Sharing Good Practice in Teaching	Discussion	David Davies	Verbal	Open
Main Section					
009	Warwick Core Skills	Discussion	Pat Tissington	Paper 009.SEMEC.19-20	Open
010	Examination Communication	Information	Rebecca Freeman	Verbal	Open
011	Postgraduate Business	Information	Martin Wills	Paper 011.SEMEC.19-20	Open

012	Widening Participation	Information and Discussion	Amanda Bishop	Verbal	Open
013	Student Learning Experience and Engagement Committee	Information and Discussion	Dave Wood	Verbal	Open
014	Academic Representation SU/University Partnership Agreement	Information	David Davies	Paper 014.SEMEC.19-20	Open
015	National Student Survey Results 2019	Discussion	David Davies	Paper 015.SEMEC.19-20	Open
016	Peer Dialogue	Information	David Davies	Paper 016.SEMEC.19-20	Open
017	Appeals in Progress	Information	Louise Hasler	Verbal	Open
018	Audit of Departmental Quality Assurance Processes for Module Approval	Discussion	Louise Hasler	Paper 018.SEMEC.19-20	Open
019	Termly Timeliness of Feedback Report				
	(a) Digest (faculty level)	Discussion	Louise Hasler	Paper 019a.SEMEC.19-20	Open
	(b) Individual departmental returns			019b.SEMEC.19-20	
020	Annual Plagiarism Report	Discussion	Louise Hasler	Paper 020.SEMEC.19-20	Open
Other					
021	Any Other Business				
<i>Items below this line are for receipt and/or approval, without discussion</i>					
022	First Year Board of Examiners 2018-19	Discussion	Louise Hasler	Paper 022.SEMEC.19-20	Restricted
023	Warwick Education Conference 2020: SAVE THE DATE The conference will be held on 12 May, with pre-conference workshops held on 11 May. All details, including a call for contributions will be confirmed later this term.	Information	Louise Hasler		
CLOSE BY 1.00 pm Next meeting: 11.00 am, THURSDAY 16 JANUARY 2020 COUNCIL CHAMBER, SENATE HOUSE					

UNIVERSITY OF WARWICK

FACULTY OF SCIENCE, ENGINEERING AND MEDICINE

Faculty of Science, Engineering and Medicine Education Committee

Minutes of the meeting held on Thursday, 16 May 2019

- Present: Dr Dave Britnell (Chair), Dr Stuart Allen (Life Sciences), Alex Baker (Postgraduate Student from the Faculty), Professor Gavin Brown (Mathematics), Dr Nikola Chmel (Chemistry), Dr Nick d'Ambrumenil (Physics), Dr David Davies (WMS), Dr Miriam Gifford (Life Sciences), Professor David Hobson (Statistics), Dr Russ Kitson (Chemistry), Professor Jason Madan (WMS), Professor Kevin Neailey (WMG), Dr Gioia Panzarella (Faculty of Arts), Dr Michael Pounds (Physics), Professor Lesley Roberts (Deputy Chair), Dr Jane Sinclair (Computer Science), Dr Elke Thonnes (Statistics), Dr Helen Toner (Faculty Senior Tutor), Professor Matthew Turner (Physics), Dr Adrian von Muhlenen (Psychology), Professor Martin Wills (Deputy Chair), Dr Dave Wood (Mathematics).
- In attendance: Katie Baker (Life Sciences), Amanda Bishop (Faculty Widening Participation Coordinator), Amy Collins (Assistant Secretary), Dr Dmitry Christilov (Computer Science), Professor David Lamburn (Deputy Prov-Vice-Chancellor (Education)), Louise Hasler (Secretary).
- Apologies: Professor Gill Cooke (Engineering), Dr Georgia Kremmyda (Engineering), Dr Ian Tuersley (Student Engagement Coordinator), Dr Philip Young (Life Sciences).

42/18-19 Conflicts of Interest

REPORTED:

- (a) That, should any members or attendees of the Committee have any conflicts of interest relating to agenda items for the meeting, they should be declared in accordance with the CUC Guide for Members of Higher Education Governing Bodies in the UK, available from <http://www.universitychairs.ac.uk/wp-content/uploads/2015/02/Code-Final.pdf>
- (b) That no conflicts of interest were declared.

43/18-19 Equality, Diversity and Inclusion

REPORTED:

That members were asked to engage with agenda items in light of the University's policies that support equality, diversity and inclusion.

44/18-19 Minutes

CONSIDERED:

The minutes of the meeting of SEMEC held on 24 January 2019 (SEMEC.26/18-19).

RESOLVED:

That the minutes were held to be a true and accurate record, subject to the following clarifications being made prior to publication:

- Minute 31d/18-19 refers: this minute should refer to the “distribution of disciplines” rather than the “split of teaching.”
- Minute 28e/18-19 refers: the comment from the PGR student representative, prior to its response, had been intended to conclude “but not at the expense of other learning activities.”

45/18-19 Matters Arising

a. Strategic Item: Undergraduate Research Scholarship Scheme (minute 27/18-19 refers)

REPORTED:

- (i) That the Secretary had analysed an Institutional review of Opportunities for Undergraduate Research at the University of Warwick (currently 18 months old and therefore not shared) that set out the opportunities for research provided at the level of departments; from which it was concluded that there was not any obvious correlation between those departments whose students were in a relative minority of students in receipt of URSS awards, but substantial opportunities for research did exist in some of those departments, e.g. students in Statistics undertake a large research project in year 4 and in Engineering, students spend time solving real industrial problems.
- (ii) That the discussions on URSS at the last meeting had been reported to the meeting of the Board of the Faculty of Science, Engineering and Medicine held on 12 February, and it had been resolved to consider how the Faculty might offer financial support to the scheme, for instance via funding students whose supervisors were new to the scheme, or students from under-represented groups.
- (iii) That following discussion at the Board of the Faculty of Science, Engineering and Medicine meeting on 12 February 2019, the Faculty allocated £7500 for up to five additional URSS projects for students in the Faculty. Additional funding was subsequently allocated by the University to allow more projects to go ahead (c200 bursaries cf 162 in 2018) and a cut-off for receiving central URSS funding was set at a score of 22 (out of a possible 30). As there were four Faculty of Science, Engineering and Medicine applicants to URSS who scored 21, the decision was made to use the Faculty funding to provide bursaries of £1000 (standard level) to these four students (2 Chemistry, 1 Mathematics and 1 Life Sciences). A summary of awards and success rates was circulated (SEMEC.27/18-19).

REPORTED: (by the representative from WMG)

- (iv) That although WMG and the School of Engineering had 0 URSS applications, this was likely because WMG offered their own scheme open to both WMG and School of Engineering students, which had a high uptake in both departments, noting that it would be beneficial to the implications of this report if the equivalent statistics for the WMG scheme could be included as an addendum in future.

REPORTED: (by the Faculty Widening Participation Coordinator)

- (v) That a report investigating the detail of Widening Participation factors in relation to URSS uptake was due to be published imminently.

CONSIDERED:

- (vi) The following points raised at a recent Faculty Heads of Department forum, which the representative of WMS reported to the meeting:
- The suggestion to include further selection criteria around Widening Participation factors in order to incentivise students from less advantaged backgrounds.
 - Concerns that the amount of funding available through the scholarship was insufficient to cover summer living costs.

RESOLVED:

- (vii) That the Faculty Education Committee would defer consideration of these suggestions until the above-referenced report (minute 45a(v)/18-19 refers) was published, as it might usefully feed into further discussion of these issues.

b. Progress Against ITLR Recommendations (minute 27/18-19 refers)

REPORTED:

That the minutes from the Strategic Success Programme Board at which progress against the ITLR recommendations for professional services departments had been reviewed had been made available (SEMEC.28/18-19).

CONSIDERED:

A request to receive this report annually.

RESOLVED:

That the Secretary would introduce a seasonal (term 3) item to the SEMEC agenda to receive Professional Services ITLR updates on an annual basis going forward.

CONSIDERED:

- a. A report from the faculty Student Engagement Coordinators and PGR Student Representative (SEMEC.29/18-19) to inform the Committee of the roles of the Faculty Student Engagement Coordinators and Faculty Student Representatives and to update the Committee on the ongoing work in the Faculty related to student voice and student engagement.
- b. The proposal within this report to form a committee comprising the Student Engagement Coordinators, Faculty Student Representatives, and SSLC Chairs and Secretaries, with a remit to advise on student-relevant faculty issues and to allow the student representatives on SEMEC to better inform this committee of student perspectives; this committee would be co-chaired by staff and student members and would receive administrative support from the faculty.

REPORTED: (by the Student Engagement Coordinator / representative from Statistics)

- c. That it should be noted that not all faculties appeared to be harmonised in having Student Engagement Coordinators within their Faculty Education Committee membership, noting it appeared to be incidental in the case of the Faculty of Science, Engineering and Medicine.
- d. That two Strategy Sessions had been run in 18/19 to facilitate sharing between SSLC representatives and their academic convenors across the faculty; feedback had been positive and participants were grateful for the opportunity to share good practice, noting that future plans to develop an online community were being discussed as outlined in the paper.
- e. That the Student Engagement Coordinators were considering whether it would be beneficial to have sight of annual SSLC reports across the faculty.

REPORTED: (by the PGR Student Representative)

- f. That the intended constitution of the proposed committee was to mirror SEMEC, being student-heavy rather than staff-heavy and thus being able to feed student feeling into SEMEC more effectively.
- g. That meetings of some of the intended membership had been taking place on a regular basis but that it was felt that administrative support would benefit the organisation of meetings and that formalisation would ensure the continuation of this good practice.

REPORTED: (by the representative from Chemistry)

- h. That it would be beneficial in addition to this proposal to give more consideration to how to engage the disengaged student body, noting that the Widening Participation Coordinator suggested this was an issue that needed addressing pre-arrival to some extent as well as post-arrival.

RESOLVED:

- i. To recommend the formation of a committee as per minute 46b/18-19 for institutional approval.

RECOMMENDED: (to the Academic Quality and Standards Committee)

- j. That a committee be formed as per minute 46b/18-19 of the Faculty of Science, Engineering and Medicine Education Committee.

47/18-19 Graduate Outcomes Data

REPORTED:

- a. That charts showing graduate outcomes for individual departments by type of study and protected characteristics (gender, ethnicity and disability), provided by the Strategic Planning and Analytics Office had been sent to departments in March 2019, followed by the data in Excel format to assist with interpretation, with a request to respond with findings in time for the next meeting.

CONSIDERED:

- b. The departmental responses to the data; what further action departments might reasonably be expected to take; and what future changes to the presentation of the data might be required (SEMEC.30/18-19).

REPORTED:

- c. That although some departments had commented that data samples of students with protected characteristics had been too small to analyse meaningfully, it should be noted that the Office for Students would nonetheless expect responses to address that issue with plans for how to increase sample sizes in these areas.
- d. That the data request process had been quite laborious despite excellent support from the Strategic Planning and Analytics Office.
- e. That approaches to analysis were widely varied, noting that a centralised analysis resource might help departments to engage better with the data in future.

REPORTED: (by the representative from Chemistry)

- f. That the department of Chemistry would have concerns about the risk of a central resource not having the appropriate context in which to analyse some of the data which were presented; for instance they had found some of the courses for which data was presented were non-qualification courses which could not be analysed in this way; Chemistry would prefer a unified framework for departments to follow rather than a centralised resource.

REPORTED: (by the PGR Student Representative)

- g. That there might be a temptation for departments to argue away too many uncomfortable issues were analysis left solely to the departments; an institution-level analysis would be preferable in this respect.

REPORTED: (by the representative from Mathematics)

- h. That the membership of SEMEC itself was not as diverse as would be ideal, making it uncomfortable at times to discuss these issues, noting that the PGR Student Representative suggested that the formation of a focus group to investigate this issue might be worthwhile.

RESOLVED:

- i. That a small group of representatives from within the Faculty with data analysis interests and experience would be formed with the remit to propose an appropriate framework for analysis and presentation of this data in future, in consultation with the Strategic Planning and Analytics Office as to how this might be supported centrally; members were invited to propose any representatives to the Chair or Secretary, noting that the membership need not be extensive (perhaps 4-5 persons).

48/18-19 Credit and Module Framework

CONSIDERED:

- a. A report on the review of the University's credit and module framework (SEMEC.31/18-19), presented by the Deputy Pro-Vice-Chancellor (Education).

REPORTED: (by the Deputy Pro-Vice-Chancellor (Education))

- b. That the review was of the opinion that the new proposed framework would be beneficial; that the intention is to work with colleagues constructively to bring forward these changes, noting that some departments are strongly in favour but also acknowledging the problems which arise particularly in the Faculty of Science, Engineering and Medicine.

REPORTED: (by the representatives from Mathematics)

- c. That the Mathematical Sciences departments felt that they were already achieving the goals of the Education Strategy in this respect and that the current recommendations of the review were at risk of stifling this good work.
- d. That student feedback had evidenced that Warwick's current model within the Mathematical Sciences with its level of choice and interdisciplinarity was a key selling point, with another colleague noting that the MORSE degree in particular was held up as a standard of interdisciplinarity but that it was feared this degree could not be sustained under the newly proposed framework.

- e. That the existing modules with very low credit values had often proved beneficial for students; a student choosing an option early which turns out not to be their forte will be less at risk for having tried this option at low stakes.
- f. That the Mathematical Sciences departments would be in favour of a successful solution that would not have such a negative impact on their working model as the 15 credit basis was thought to bring, noting that a lower base of 7.5 credits was not thought to make sufficient difference to the specific challenges in restructuring courses; the representative from Mathematics felt that something akin to the Imperial College London model (10, 15, 20, 25, 30) might be more feasible, noting that this was an initial feeling rather than the result of any detailed investigation.
- g. That the concern raised at the previous meeting of SEMEC regarding use of a quotation from a student of Mathematics that was felt to be misrepresentative of the views of Maths students captured in the NSS, appeared not to have been addressed, to which the Deputy Pro Vice Chancellor for Education responded that this had been passed on for action and would be reviewed again.

REPORTED: (by the representative from Life Sciences)

- h. That the school had consulted its students extensively about this review, noting particular concerns raised that students would lose the level of choice they currently have under the new framework; departmental discussions were ongoing as to which choices would have to be eliminated and this was causing consternation.
- i. That there were some concerns over retention of accreditation under the new framework, to which the Deputy Pro-Vice-Chancellor (Education) responded that the University would not act to the detriment of existing accreditations and would work together with the School to secure re-approval of that accreditation under the new framework.

REPORTED: (by the PGR Student Representative)

- j. That there was a question of definition around interdisciplinarity; in Science, Engineering and Medicine this could be interpreted as highly specialised individuals from one field working together with equally highly specialised individuals from other fields, rather than as individuals gathering arguably weaker experience in a wide variety of fields but no specialism; the committee was asked to consider whether its aim is to produce scientists with strong scientific skills able to pursue scientific careers, or to produce graduates who might enter any career.
- k. That it should be noted in relation to the above point that within the Mathematical Sciences the elements of choice are broadened out later in study when the strong scientific foundation has been built.

REPORTED: (by the representative from WMG)

- l. That it should also be noted that the impact of the recommendations would reach beyond tariff alone; WMG's Undergraduate Programmes in particular (15 credit base) might be more challenged than the Postgraduate (majority 10 credit base) because of the recommendations with respect to diversification of assessment methods.

REPORTED: (by the Deputy Chair from WMS)

- m. That some departments were receiving this review as disrespecting their pedagogical and academic expertise in their own discipline areas, noting that it might be beneficial to review how departments could be worked with in order to achieve a successful conclusion; the Deputy Pro Vice Chancellor for Education responded that no disrespect had been intended and that the desire was indeed to work with departments, being the experts in their own disciplines.

REPORTED: (by the representative from Chemistry)

- n. That the new framework would not solve the department's problem with year 4 undergraduate modules not fitting together well with their postgraduate taught modules; an Imperial-style framework would also be preferable for them.

49/18-19 Widening Participation

RECEIVED:

- a. An update from the Faculty's new Widening Participation Coordinator, Amanda Bishop, on Faculty level activity in respect of widening participation, together with a report from the Faculty's Widening Participation and Outreach Forum (SEMEC.32/18-19).

REPORTED: (by the Faculty Widening Participation Coordinator)

- b. That the role was intended to support strategic Widening Participation initiatives in the Faculty, noting that governance of Widening Participation was currently under review, with more emphasis being brought to departmental buy-in and the effects of the Education Strategy, as well as a broadening of the life cycle to review outcomes in both award and employment terms beyond the experience of current students only.
- c. That new student and staff networks for Widening Participation were being developed to bring more opportunities to share good practice and experience.

CONSIDERED:

- d. The University's draft Widening Participation Strategy (SEMEC.33/18-19).

REPORTED: (by the Faculty Widening Participation Coordinator)

- e. That the strategy consultation had now finished and the priority was to obtain departmental buy-in, nonetheless noting the following suggestions and comments raised by members of SEMEC in the meeting:
 - More work could be done on performance indicators for this strategy (e.g. how to measure understanding); it was noted that there were plans in place for using an application to measure this.
 - Any possible scope for one institution to direct Widening Participation students towards another institution where thought appropriate would be a positive way of working together to improve Widening Participation across the sector.

- A University level list of staff who have connections to specific local schools would be a useful resource; it was noted that there is a local school partnerships list under development as well.
- f. That members should be aware of the impact the Widening Participation Strategy would have on recruitment and admissions, noting that consultation on this impact was ongoing.

50/18-19 Report from the Faculty Employability Forum

RECEIVED:

A report from the Faculty's Employability Forum (SEMEC.34/18-19).

51/18-19 Postgraduate Business

RECEIVED:

- a. An oral report from the Deputy Chair (Chemistry), including information on the status quo with respect to WCPRS applications for the Faculty; information on PhD and EngD submission rates (SEMEC.35/18-19).

REPORTED: (by the Deputy Chair from Chemistry)

- b. That all WCPRS applications that were received were able to be funded successfully, noting that a few more places were available should any late applications come through.
- c. That the Graduate School was reviewing its remit; that the terms of reference of the Board of Graduate Studies would be revisited; and that a possible outcome would be for the Graduate School to focus exclusively on matters pertaining to postgraduate research students; and that a discussion paper was considered at the Board of Graduate Studies on 30 April 2019 (SEMEC.36/18-19).
- d. That the following extract from the draft minutes of the meeting of BGS on 30 April 2019 summarised the discussion:
- (i) The Chair reported that the proposal had been shared with the Education and the Research Executives, with the main concern being the future of PGT at the institutional level. In reality, activities in support of PGT have been gradually moving away from the Graduate School's remit. Implementing the proposal presents an opportunity to promote the importance of PGR study, with an allied opportunity for BGS to bring education and research closer together.
 - (ii) The Committee unanimously approved the proposal to focus the Graduate School's remit on postgraduate research – i.e. cease all PGT-only activities. There was support for an alternative title to 'Doctoral College', e.g. 'Graduate Research School'. This covers the inclusion of PGT research students in the remit and, potentially, post-docs and ECRs. There was concern that the latter are an overlooked community within the University, although the Head of the Graduate School reported that a group had recently formed to remedy this situation.

- (iii) There was also consensus that the BGS should no longer have PGT in its terms of reference, with this being covered already by the Faculty Education Committees and the Education Committee. However, there remains a sense that this isn't enough in terms of institutional strategic oversight for and governance of PGT. The Chair and Deputy Chair resolved to take this issue back to the Education Committee on behalf of BGS.

52/18-19 Work Based Learning Framework

RECEIVED:

A framework developed to provide tools and resources for the guidance and support of those within the University who offer work based learning (SEMEC.37/18-19).

REPORTED:

That, contrary to its framing as 'to consider' in the agenda, this framework had already been agreed and was circulated for information only.

53/18-19 Maximum Periods of Study

CONSIDERED:

The preliminary paper on Initial Recommendations on implementing Maximum Periods of Study (SEMEC.38/18-19), which had been developed with the eventual aim of publishing a clear list of absolute maximum periods of registration to help ensure the currency of knowledge, competency and the quality of students' degrees.

RESOLVED:

That members supported the recommendations of the paper, subject to the following comments being addressed:

- That the impact on Widening Participation students should be considered
- That there was a need for clarity on the legitimacy of the award of sub-qualifications which have shorter maximum periods of study than their higher qualifications; for example if a student completed but failed the higher qualification within its longer maximum period of study, and would be otherwise eligible for the lower qualification for which they would have exceeded the maximum period of study, could they still be awarded that lower qualification?
- That clarity was required over the reasons for which some courses of study were marked as not applicable with respect to some modes of study
- That there was a requirement for Degree Apprenticeships to be specifically addressed within this document
- A few specific technical points from the representative from Life Sciences, which were noted by the Assistant Registrar (Teaching and Learning)

54/18-19 Timeliness of Feedback Turnaround Times

CONSIDERED:

- a. A report summarising Feedback Turnaround Times for the Faculty (SEMEC.39/18-19), noting that individual departments' responses were available online (SEMEC.47/18-19).

REPORTED:

- b. That WMG's Undergraduate turnaround had improved notably.
- c. That a University review of the most expedient way to review feedback turnaround times was ongoing.

55/18-19 First Year Board of Examiners in Science, Engineering and Medicine 2018/19

REPORTED:

- a. That due to the re-configuration of the examination timetable with first year examinations scheduled later than usual, all meetings of First Year Boards of Examiners had been deferred in order to allow departments sufficient time to mark.
- b. That the main subjects and departmental conventions described in Exam 3 (SEMEC.40/18-19) and Exam 5 (SEMEC.41/18-19) would be the documents used at the Board of Examiners meetings in July and September and no further changes could be made to these documents once approved. The need for the following corrections was noted:
 - (i) Maths/Philosophy should be removed as this course was now wholly administered by the department of Philosophy.
 - (ii) An erroneous reference to the now disestablished Science Undergraduate Studies Committee should be removed.
- c. That the finalised membership list (SEMEC.42/18-19) would be approved by the Board of the Faculty of Science, Engineering and Medicine and Senate prior to the meeting of the First Year Board of Examiners on 2 July 2019.
- d. That all academic departments were required to advise their students in writing of any specific resit requirements, including where progression requirements on resit would differ from those at first attempt, and to ensure that departmental Student Handbooks were updated accordingly, noting that the requirement applied to undergraduate and postgraduate students.

ITEMS REPORTED AND APPROVED WITHOUT FURTHER DISCUSSION

56/18-19 Chair's Action

REPORTED:

That the following actions had been undertaken by the Chair on behalf of the committee since its previous meeting:

- Approval of the delegation of approval to admission to PhD by publication to the Deputy Chairs of SEMEC, operating across the same portfolios as the examiners' report approvals, delegation of which was reported in the term 1 18/19 meeting (minute 6a/18-19 refers).

57/18-19 Module Evaluation

RECEIVED:

A report considered by the SLEEC regarding Module Evaluation (SEMEC.43/18-19).

58/18-19 Modules Approved by Departments

RECEIVED:

A summary of the new modules and revisions to modules made by departments within the Faculty (SEMEC.44/18-19).

REPORTED:

That as part of the new module workflow approval project, deadlines and the locus of approval for modules would be reviewed in consultation with Chairs of Faculty Education Committees, noting that as this project would involve departments collating MA1 forms over the summer period to ensure accurate population of the system, these forms were not requested this year.

59/18-19 Summary of Approved/Discontinued Courses

RECEIVED:

A summary of the new courses approved and the courses discontinued institutionally (SEMEC.45/18-19), noting that the new course approval workflow system was being piloted.

60/18-19 Peer Observation Consultation

RECEIVED:

A paper considered by SLEEC (SEMEC.46/18-19) at its April 2019 meeting regarding Peer Observation, noting that at a Faculty level, departments either currently ran schemes that were aligned with the proposals, or welcomed the recommendations in principle; one department asked for the resource impact of augmented peer-observation to be noted, and another for more examples of good practice on which to draw.

61/18-19 Date of Next Meeting

REPORTED:

That meetings of the Faculty of Science, Engineering and Medicine Education Committee 2019-20 had been published by Governance Services in the [Committee Timetable](#) for the 2019-20 academic year. Diary invitations would be created over the summer vacation, once committee membership for the forthcoming academic year was confirmed. Meetings were as follows:

Term 1:	Thursday 24 October 2019	11am-1pm in Senate House Council Chamber
Term 2:	Thursday 16 January 2020	11am-1pm in Senate House Council Chamber
Term 3:	Thursday 30 April 2020	11am-1pm in Senate House Council Chamber

Report to SEMEC

Reference:	005.SEMEC.19-20	Report classification:	Open
Meeting Date	24 October 2019		
Title	Terms of Reference and Membership 2019-20		
Author / Presenter	Louise Hasler, Secretary to SEMEC		
Purpose of Report			Tick all that apply ✓
To provide assurance		To obtain approval	
Regulatory requirement		To highlight an emerging risk or issue	
To canvas opinion		For information	✓
To provide advice		To highlight student or staff experience	
University Strategy			
Research		Education	✓
Innovation		Inclusion	
Regional Leadership		Internationalisation	
Equality and Diversity			
Are there any equality and diversity implications that would affect the University's obligations under the Public Sector Equality Duty (PSED; to eliminate discrimination, advance equality of opportunity and foster good relations between people) that should be discussed as part of this report? (if yes, details to be provided within the report) [please contact Equality@warwick.ac.uk if you have queries relating to E&D]			Yes
			No ✓
Summary of Report		[Include key points and additional information as necessary regarding purpose of report. A cover sheet should be no more than two sides of A4]	
<p>Science Faculty Education Committee was established in 2017-18 as a result of the University's review of academic governance: Faculty education committees were established to supersede Boards of Undergraduate and Postgraduate Studies, with the intention of focussing terms of reference more sharply on the University's Education Strategy. Following the merger of the Faculty of Medicine with the Faculty of Science, the committee became the Science, Engineering and Medicine Education Committee in 2018-19.</p> <p>The purpose of the report is to inform members regarding the membership and to act as a reminder of the terms of reference of the committee.</p>			
Recommendation	SEMEC is invited to: (a) Note the terms of reference and membership.		

Route Map for this Report

Committee	Date	Reference	Action Requested/Taken
SEMEC	24 October 2019	005.SEMEC.19-20	To Note

Terms of Reference

- (a) To consider Faculty-level implementation of the University Education Strategy;
- (b) To work with the Pro-Vice-Chancellor, Deputy Pro-Vice-Chancellor, Chairs of the Boards of the Faculties, Academic Directors and others to develop Faculty-level approaches to key themes such as Employability, Assessment, Joint Degrees, Feedback and other strategic and topical Education matters;
- (c) To develop and share best practice, enabling all departments to learn from the experience of the best across a range of areas of practice;
- (d) To make recommendations to the Board of the Faculty in relation to the development of Education policy and practice;
- (e) To consider departmental progress towards enhancing the student experience, including as recognised in sector metrics;
- (f) To contribute to ensuring that Faculty-level education provision remains cutting edge and attractive in a competitive marketplace;
- (g) To advise and report to the Board of the Faculty on all matters relating to the organisation of teaching including curricula, assessment, examinations and wider student experience;
- (h) To consider and approve, on behalf of the Board, changes to undergraduate modules in the Faculty, pending the availability of Phase 2 of the SITS workflow;
- (i) To consider periodic reports from Faculty Education Chairs (appointed to represent the Faculty on examination PRPs and appeals committees Investigating Committees; Continuation of Registration Committees and to approve requests from students for unusual options/variations to curricula/variations to methods of assessment and reports from examiners on research theses) on issues arising for broader education strategy;
- (j) To discharge the above responsibilities across all levels of study.

Membership 2019-20

Chair	Dr David Davies
Deputy Chair	Dr Jane Sinclair (Computer Science)
Deputy Chair	Professor Martin Wills (Chemistry)
Chemistry	Dr Nikola Chmel Dr Russ Kitson
Computer Science	Dr Adam Chester Dr Jane Sinclair
Engineering	Professor Layi Alatise Professor Gill Cooke Dr Georgia Kremmyda
Life Sciences	Dr Stuart Allen Dr Miriam Gifford Dr Philip Young
Mathematics	Professor Gavin Brown Professor Jose Rodrigo Dr Dave Wood
Physics	Dr Nick d'Ambrumenil Dr James Lloyd-Hughes Dr Michael Pounds
Psychology	Dr Adrian von Muhlenen Professor James Tresilian
Statistics	Dr Paul Jenkins Dr Anastasia Papavasileiou Professor Mark Steel
WMG	Professor Robin Clark Dr Matthew Jones
WMS	Dr Lucy Hammond Professor Jason Madan Professor Lesley Roberts

To be confirmed:

Undergraduate student representative of Engineering and Experimental Sciences

Undergraduate student representative of Physical and Formal Sciences

Postgraduate taught student from the Faculty

One postgraduate research student from the Faculty Alex Baker (Chemistry)

One representative from the Faculty of Arts Dr Jessica Savage
and of Cross Faculty Studies Dr Gioia Panzarella

One representative from the Faculty of Social Sciences Dr Jennifer Smith

Faculty Senior Tutor Dr Helen Toner

In attendance:

*Dr Ian Tuersley/ Dr Elke Thonnes, Faculty Student Engagement Coordinators
Amanda Bishop, Faculty Widening Participation Coordinator*

wrap research team:

Anoshamisa Gonye (UG), Dan Nadasan (UG),
Katie Hall, (PG), Shane Rawlinson (PG), Wangi P. Sari (PG)

wrap Principle Investigator & supervisor:

Michele Underwood

WRAP PROJECT REPORT

July 2019

Executive Summary:

Undergraduate research (UR) can be a powerful tool for transforming the undergraduate experience for all students. Meaningful initiatives for widening participation (WP) in higher education (HE) require systemic practices and activities that build bridges and remove barriers for the full inclusion of underrepresented students at each stage in the HE lifecycle. The argument presented in this report is that UR can be exactly the type of practice that fulfils these requirements when it is embedded in institutional culture, rather than administered as a discrete activity detached from broader institutional or departmental education strategies.

This report is prepared by the Widening Research and Participation (*wrap*) project at the University of Warwick. *Wrap* is a two-year research project investigating the availability and accessibility of UR opportunities at Warwick. The *wrap* project was based on an inclusive model with students at its centre. It was vital that students were involved and actively engaged in the research hence a Students as Partner (SaP) approach was implemented since the start. Situated initially in Students Careers & Skills Office and now the Graduate School, the research team is a student-staff partnership comprising three postgraduate and two undergraduate students, supervised by the Researcher Development Manager; and in the first year supported by the Undergraduate Research Support Scheme (URSS) Co-ordinator. The project is funded by Warwick's Widening Participation Development Fund.

Having begun operation in January 2018, the *wrap* project's focus has been on bridging knowledge about UR with that of WP; to understand the role of UR in enhancing the university experience for all students, particularly for those from underrepresented groups, who face barriers to participating in university life.

The project's two-year process has involved literature-based research on the themes of UR and WP; engagement with Warwick undergraduate students; public dissemination of the project's findings; and networking with key stakeholders and audiences to share the team's ideas and learn from others' best practice.

Research Context:

According to reports by the Russell Group and Institute of Public Policy Research, students from black and minority ethnics (BME) and lower socio-economic groups are particularly deterred from applying to Russell Group Universities. Evidence also shows this cohort find it harder to gain employment after graduating and tend to earn less than their peers (Walfish and Hess, 2001; Mary and Chubin, 2003). Moreover, the financial implications of continuing onto HE deters students who have less financial stability, support or need an income sooner.

Extra-curricular activities can improve academic performance, personal and professional skills. Students learn and develop skills such as teamwork, social skills, and critical thinking which can boost their confidence level and lead to better employment prospects. Such activities include participating in clubs and societies, student government, internship and undergraduate research project. The latter specifically has been found to have a direct benefit in the classroom (Madan, 2013). It improves students' understanding of the rationale underlying others' research and increases disciplinary knowledge and understanding of how that knowledge might be applied. Furthermore, studies have shown undergraduate research enable students foster independence and deep learning (Lopatto, 2003). It also improves communication and analytical skills. Therefore, it is paramount that students engage in such activities alongside their study; especially students who identify within the protected characteristics, who would benefit the most. As reported in several studies,

undergraduate research (UR) supports career pathways for underrepresented students by increasing the retention rates in higher education (Nagda, et al, 1998; Lopatto, 2004).

Findings:

Recommendations for URSS:

The *wrap* team recommendations following on from the survey were reported to the URSS review Board, and in an internal paper to PVC Education April 2019.

In brief: firstly we suggested increased availability of supervisory support. As of May 2019 this has now been partially addressed with Post-Docs being allowed to be URSS supervisors; however this will not address the confidence issue that is also a major area of concern for WP students. We are pursuing for further support structures to be made available.

Secondly we have asked for a re-evaluation of the financial structure since the bursary is evidently insufficient for many students especially those who identify as WP. To clarify: Students work on their research project over summer for 6-10 weeks. The maximum bursary amount for students conducting their research in the UK is £1000, and for international research projects it is £1500. If a student was awarded the full £1000 bursary and worked for six weeks at an average 35 hours a week, then they would in effect earn £4.76 an hour. If they worked 35 hours a week for 10 weeks, they would be working for £2.86 per hour. Both figures are far below the minimum wage of £6.15 for 18 to 20-year olds and £7.70 for those aged 21 to 24.

Suggestions for financial adjustment include paying for accommodation for the summer on campus, or providing credit on Easting at Warwick cards.

Several issues faced by students are intertwined and generally related to the level of support provided. In the survey, students were asked what changes they would like to see in the URSS. The most popular option, selected by a majority (55%) of students, was a “part-time or flexible time commitment to fit around other responsibilities”. Similarly, respondents were also keen on other measures to increase the flexibility of the URSS. 37% want the scheme offered outside of summer and 31% desire a shorter research period. Greater flexibility in this regard could also potentially help WP students who may have caring responsibilities, have a disability, or must work part-time as well to cover their living costs.

As one URSS participant interviewed mentioned, they thought there was a lack of social activities which contributed to loneliness for many URSS participants. Therefore, the URSS could provide more informal social events.

However, while these reforms would be welcomed, this report ultimately advocates a broader, more fundamental change - embedding undergraduate research into student’s curriculums.

Undergraduate Research for Widening Participation

The *wrap* team have identified that undergraduate research (UR) creates cognitive and emotional personal gains (Osborn and Karukstis, 2009) that have the potential to bridge the gap of disadvantage placed on students who fall into the criteria of Widening Participation. Additionally, it has been noted that underrepresented and first-generation students benefit the most from research experiences. These can represent the vehicles through which WP students create a sense of self-authorship and independence and build upon social and cultural capital that they need in an academic setting. Our current phase of activity revolves around engaging colleagues with our findings and supporting them to implement change.

Wrap Project goals, objectives and focus for 2018-2019- a review of progress

This year, the focus was on understanding the current picture (mix of qualitative and quantitative research)

1. assess URSS impact and accessibility
2. consider any other projects that could be implemented to support undergraduate research in general and URSS in particular (Undergraduate Research ambassadors, undergraduate research days, mentorship schemes etc.) by making use of WP literature and empirical data
3. develop contacts within each Department
4. interview-based qualitative research – with the SU, Department representatives, the WP Committee, ex- and current URSS students
5. develop and design inclusive delivery templates to enable departments to engage with the delivery of intra-curricula UG research opportunities.

July 2019: We can report that we have successfully met and completed all our goals for this year; with revisions of our practice for activity 4 and 5.

Objective 5 has been revised in recognition of the fundamental asset of working with Students as Partners. Rather than delivering templates for departments to adopt, we are now working on case studies and communications to enable departments to build their own projects, and adopt their own SaP projects to deliver UR into their curriculum. Initially frustrated at the slow pace of change we are happy to assist departments to work at their speed to implement changes.

Objective 4 has been completed with the revision that we included the wider student body rather than just URSS participants; this has allowed for a broader spectrum of opinions and has provided additional useful feedback for the URSS. Secondly in order to assist departments with implementation it is essential that we understand the barriers, as they perceive them. We are taking this on a case-by-case basis and will be seeking additional funding to assist with this. We are now/ have been asked to work internally with the Student Research Group/ IATL/ PVCs for Education & Student Engagement/ Department Engineering and we will be seeking other partners to assist with adopting best practice.

In addition to dissemination events (see Public Engagement) the team will be writing articles to contribute to the scholarly advances of this subject. A full academic review report will be available once we have written internal reports for colleagues and had responses from journals. The Library has offered to pay for one, possibly two open source articles.

In addition to the reporting back on our research, we wanted to look to see where we could contribute to existing work undertaken by our WP colleagues. To support fully the life cycle of our young students not yet at Warwick, we examined opportunities where we could make explicit links to the URSS and the opportunities there. But more importantly we wanted to demonstrate the opportunities, knowledge gain, confidence and self-determination that being involved in research can bring.

We have therefore identified opportunities where we could support Warwick's Outreach work (see pages 7-11) to encourage and support young people to engage with research.

2018-19 Budget:

In January 2019 in light of our receiving Research Ethics approval it was necessary to recruit a further post-graduate researcher to the team. In addition to strengthening the knowledge base it also gave us an additional interviewer, a further quantitative methods specialist and a new set of eyes on an established project. We were successful in gaining additional funding from ICUR/URSS to fund one of our UGs to present at the World Congress of Undergraduate Research.

Public Engagement Activities:

1. University of Sheffield

(July 2018) The *wrap* team met with colleagues from the Sheffield Summer Undergraduate Research Experience (SURE) in July 2018, as Sheffield was the only scheme to mention Widening Participation as a factor in their selection for students. Agenda items included: how the Sheffield Scheme (SURE) works with departments to increase resources and opportunities for students from widening participation backgrounds, how the schemes fit into broader agendas within the universities, applying our learning from the literature about the role and potential of undergraduate research to level the playing field for student outcomes, and generally putting the world to rights.

2. ICUR

In September 2018, the *wrap* project presented its early findings at the International Conference of Undergraduate Research (ICUR). Anoshamisa delivered a 20-minute presentation on behalf of the team, entitled, 'Widening Participation in Higher Education through Undergraduate Research'.

3. HEA

The *wrap* team submitted for conference organised by the Higher Education Academy (HEA). They submitted a proposal for workshop session for the Advance HE STEM Conference 2019 (30-31 January 2019) under the title 'Building an Inclusive Undergraduate Research Module in One Hour'.

4. WEC

The *wrap* team attended the Warwick Education Conference 2019 (WEC), an annual event showcasing research and practice within the teaching and learning sphere, undertaken at and/or for the benefit of the University of Warwick to present a paper, poster and workshop highlighting the initial findings of the primary data collection.

5. Window on Teaching

On 16th of May 2019, the *wrap* team presented at Warwick's Window on Teaching (WoT). The WoT is a space for lunchtime 'peer-led discussions' where academics and university staff can hear about colleagues 'experiences of teaching at Warwick', share in a 'supportive community of practice', and learn and develop from other's experiences (Warwick 2019).

The *wrap* project presented under the title 'Students as Partners – a new pedagogical paradigm in HEA reflection on the *wrap* project'. The recording of which is available on the [WoT_website](#) and [our blog](#). The presentation focused on the 'Students as Partners' (SaP) practice used and researched, by the *wrap* project.

6. WCUR

In May 2019, the *wrap* team was invited to deliver the ICUR presentation, on behalf of the University of Warwick, at the World Congress of Undergraduate Research (WCUR), hosted in Oldenburg, Germany, between 23rd and 25th of May. This time, Dan delivered a 15-minute presentation with the same title of 'Widening Participation in Higher Education through Undergraduate Research', incorporating more of the empirical findings and theoretical advancements that have been made within the project since September.

7. Research Harambee

In June 2019, the Research Student Skills Programme (RSSP) ran a student led community event to celebrate UG & PG research at Warwick. The event was organised by 4 student developers (3 PGR and one UG) and showcased some of the exciting research and innovations currently happening at Warwick. *Wrap* presented a poster and also two papers- an opening section on widening research and participation, and then a closing section which was a reflection upon the *wrap* research experience. It was a mixed audience of UG & PG, academics and professional colleagues and external guests.

8. Other opportunities

The *wrap* team has been committed to stakeholder engagement, dissemination and learning from practice throughout the project life. To this end, the team have held meetings with the Warwick Students' Union President and Education Officer, attended Warwick based seminars such as the WIHEA panels and Warwick Education Conference in 2018, and presented findings at meetings such as the URSS board and Spotlight on Widening Participation. Externally, the team has attended and networked at external conferences such as RAISE, Mature Students Conference and was accepted to run a workshop at the 2019 HEA Stem conference.

8. Future public engagement

The *wrap* team will be presenting at ICUR 2019 in September 2019, and RAISE 2019 in both September and November 2019. They are also in the process of writing for publications in peer-reviewed journals and continuing to publish items of relevance on the *wrap* blog.

Outreach

In line with the Student lifecycle approach underpinning the *wrap* team's research, the Widening Participation outreach activity at Warwick was mapped, with a view to identifying opportunities for research activities to begin at the pre-university stage. The hypothesis was that beginning research at the earliest possible opportunity would be most advantageous to the most disadvantaged students – to both raise attainment and aspiration. Furthermore, activities can be continued once the student begins higher education. If a passion or interest in a topic has begun, this can be continued through the students' course curriculum, programmes such as URSS, or other extra-curricular activities. Additionally, support interventions for students who enter the university from outreach programmes may include roles such as buddies or mentors who could stimulate the ongoing research interest.

The table below provides the *wrap* team's assessment of potential within current outreach programmes at Warwick.

Programme	Age range	Activity (plus research component)	Potential for links to UR
Student progression (WP outreach) https://warwick.ac.uk/study/outreach/whatweoffer/spt/ Aspiration-raising mentoring programme, aiming to inspire young people to think about their future.	Years 9 & 10	Student Ambassador led Ambassadors work with the same group of eight pupils over a 6-8 week period. Plus an additional campus day	<ul style="list-style-type: none"> • Introduction of a research activity via a mini project can incorporate many of the current activities on offer through this programme. This could culminate in using University facilities on their campus day. • This would emphasise the skills and knowledge that this cohort have and could bring to their University Education. • Empowerment and raising of curiosity • Utilise URSS & UR to present to cohort
Warwick Sutton Scholars https://warwick.ac.uk/study/outreach/whatweoffer/suttonscholars/ Warwick Sutton Scholars is a two year programme for highly able Year 8 and 9 students who come from backgrounds that are under-represented in higher education.	Years 8 & 9	Students assigned a project at the beginning of the programme and expected to work in small non-school groups to complete the task. The programme ends with a three-day residential.	<ul style="list-style-type: none"> • Huge potential to bring in a research-led approach to projects culminating in a research showcase at the residential. • This would emphasise the skills and knowledge that this cohort have and could bring to their University Education. • Empowerment and raising of curiosity • Utilise URSS & UR to present to cohort
Experience Warwick https://warwick.ac.uk/study/outreach/whatweoffer/experience/warwick/ Variety of activities for our 25 Partner Schools in Coventry & Warwickshire	Key stages 2-5	Year 9: Campus Challenge. Year 12: University taster day	<ul style="list-style-type: none"> • Time limited research activities linked to being on campus • Discussion of research led University and how they could become involved
Summer schools https://warwick.ac.uk/study/outreach/whatweoffer/summer-schools/	For year 10s, year 12s and Sutton Scholars	Year 12: attend academic sessions and a group research project with the aim of solving a world challenge. Sutton Trust: attend a range activities designed to replicate a 1st year UG experience. Year 10 attend academic & non-academic sessions including a group challenge	<ul style="list-style-type: none"> • Emphasis upon research opportunities and scaffold knowledge and learning at this stage. • Group challenges could emphasis the research nature of the activity and how this can be taken up when they go to University. • For those attending UoW they could be offered a mentor or a small bursary. However eligibility is problematic – only high achieving WP students are eligible.

Programme	Age range	Activity (plus research component)	Potential for links to UR
<p>Uni tracks https://warwick.ac.uk/study/outreach/whatweoffer/unitracks/</p> <p>Students identified as most able and from a WP criteria.</p>	<p>Years 10-13 inclusive</p>	<p>Aspiration Year 10 involves group projects and challenges.</p> <p>Attainment Year 11 3-day residential revision Bootcamp</p> <p>Year 12 provides online mentoring, assistance with UCAS applications; undertake a piece of academic writing with a Warwick researcher.</p> <p>Year 13 is support with A level Revision.</p>	<ul style="list-style-type: none"> • Potential for links to UR • Key opportunity to engage Warwick prospects into UR • Offer continuation opportunities and incentives • Mentor approach could support this and might also be instrumental in the transition period too.
<p>Realising Opportunities https://warwick.ac.uk/study/outreach/whatweoffer/realisingopportunities/</p> <p>Realising Opportunities (RO) is a collaboration of 15 research intensive universities. The RO Programme supports current school/ college work, provides information to enable future decisions with the aim of raising aspirations.</p>	<p>Year 12s, criteria as for Unitracks</p>	<p>Supported by a University and a student EMentor. Completion of RO is recognised through UCAS.</p> <p>Attend a National Student Conference with workshops and meet RO representatives</p> <p>Online study Moodle which supports A Level work and University skills.</p> <p>Academic Element is an independent piece of research. It is made up of either EPQ or RO Academic Assignment.</p> <p>Support for academic and life skills.</p>	<ul style="list-style-type: none"> • Key opportunity to engage Warwick prospects into UR • Offer continuation opportunities and incentives • Mentor approach could support this and might also be instrumental in the transition period too.
<p>School Visits https://warwick.ac.uk/study/outreach/whatweoffer/schoolvisitrequestform</p>	<p>Secondary school and college aged students</p>	<p>WP and Outreach team visits non-selective state secondary schools</p>	<p>Possibility of UR featuring as a part of their presentations/agenda</p>

Programme	Age range	Activity (plus research component)	Potential for links to UR
Schools Warwick Visits https://warwick.ac.uk/study/undergraduate/visits/schools/events/	KS5, aimed at Years 11 – 13	A snapshot of the Open Day experience.	<ul style="list-style-type: none"> Promotion of UR with particular emphasis on how it enables students with WP backgrounds.
Pathways To Law https://warwick.ac.uk/study/outreach/whatweoffer/pathways/	KSs 4 and 5, Years 10 and 11	Opportunity to find out more about studying a Law degree, university life and to find out more about a career in the legal profession.	<ul style="list-style-type: none"> Emphasis upon research opportunities and scaffold knowledge and learning at this stage.
Pathways to Banking & Finance https://warwick.ac.uk/study/outreach/whatweoffer/pathwaystobanking/	KSs 4 and 5, Years 10 and 11	Opportunity to find out more about studying a business/economics degree, university life and to find out more about a career in finance.	<ul style="list-style-type: none"> Emphasis upon research opportunities and scaffold knowledge and learning at this stage. Academic taster days/ summer schools could include Research activity
A Level Bootcamp https://warwick.ac.uk/study/outreach/whatweoffer/alevelbootcamp/	Year 13	3 day A Level Revision Bootcamp during the Easter holidays.	Not really within remit of UR
Uni Taster Day https://warwick.ac.uk/study/outreach/whatweoffer/year12-unitasterday/	Year 12	The opportunity to attend lectures and seminars in various subjects and talk to students and lecturers.	<ul style="list-style-type: none"> Emphasis upon research opportunities and scaffold knowledge and learning at this stage. Research informed Teaching UR opportunities and support Promotion of UR with particular emphasis on how it enables students with WP backgrounds.
Subject specific activities: Faculty of Arts https://warwick.ac.uk/study/outreach/whatweoffer/subject-specificactivities/ + individual department pages	Some departments do not have WP and outreach dedicated pages 2018	<p>Classics: prioritised school communities local to the University/participate in Warwick's Sutton Trust Summer School.</p> <p>Film and Theatre Studies: Targeting students "most able, least likely" to attend university. Priority given to non-selective schools and pupils are eligible for Pupil Premium.</p> <p>History of Art/ Theatre and Performance Studies/ English/ History : nothing mentioned</p> <p>Departments work with the central WP team</p>	Most opportunities will be via initial centralised route of WP department and/or academic contacts with an interest in UR

Programme	Age range	Activity (plus research component)	Potential for links to UR
Subject specific activities: Faculty of Science https://warwick.ac.uk/study/outreach/whatweoffer/subject-specificactivities/ + individual department pages		Chemistry: Outreach Programme for primary and secondary schools Computer Science: Computer Science Ambassadors, Computer Science Residential Computing Your Future Engineering: Inspire, Headstart and the Arkwright Scholarship (not WP specific) Life Sciences: Headstart Summer School, Maths: Further Mathematics Support Programme, Monopoly Maths Trail; annual Maths and Beyond Day Psychology: nothing mentioned Physics: participates in and runs a variety of activities which engage with the wider community, in particular schools. Tours of the department, interactive demonstrations and Christmas lectures WMG: Various programmes offered targeted to increase schools engagement	<ul style="list-style-type: none"> • Emphasis upon research opportunities and scaffold knowledge and learning at this stage. • Research informed Teaching • UR opportunities and support • Promotion of UR with particular emphasis on how it enables students with WP backgrounds. • Many opportunities to talk about research, demonstrate how it is conducted, possible results/findings/insights and why research is important. • Good introduction to scientific research, acclimatising students to academic activities and practice at an early stage.
Subject specific activities: Faculty of Medicine https://warwick.ac.uk/study/outreach/whatweoffer/subject-specificactivities/ + individual department pages		Warwick Medical School: works with central WP team and links to WP and Outreach webpages/resources; school visits, science fair presentations, participates in ScienceGrrl and STEM Ambassadors, Note, Medical School Outreach Programme is only accessible through the Staff Intranet – no public facing outreach information	<ul style="list-style-type: none"> • Many opportunities to talk about research, demonstrate how it is conducted, possible results/findings/insights and why research is important. • Good introduction to scientific research, acclimatising students to academic activities and practice at an early stage. • Emphasis upon research opportunities and scaffold knowledge and learning at this stage. • Research informed Teaching • UR opportunities and support • Promotion of UR with particular emphasis on how it enables students with WP backgrounds.

<p>Subject specific activities: Faculty of Social Sciences https://warwick.ac.uk/study/outreach/whatweoffer/subject-specificactivities/</p>		<p>Law: outreach activities on campus, and in schools, to give young people an insight into studying law at university and practising law as a profession. Philosophy: nothing mentioned Politics and International Studies: nothing mentioned Business/Economics: links to Pathways to Banking</p>	<p>Possible links: Law Taster Days, Pathways to Law (as above)</p>
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Concluding statements:

The two year research project has been of great value in many different ways. Firstly 5 Warwick students have experienced applied research at first hand. All of the students have presented posters or presentations at conferences including nationally and internationally. Alongside their research they have completed their PhD, two Masters, a first and best in class in UG Law, and completed a year abroad. Additionally one is going on to study for a PhD, another a Masters and another has successfully taken on a role within the Civil Service. All of them have said that the experience has contributed to their student experience, and that employers and academics have been very impressed by the level of research they have achieved and the independence of thought and responsibility. I am proud that we have been able to offer this opportunity. I am proud of the team.

For myself I have been privileged to work with a group of colleagues who have been inspirational in their attitude and dedication to their research. They have demonstrated great support and consideration for the whole team (myself included); supporting each other to grow in confidence and ability (myself included in this as well). By working with them it gave me the confidence to apply for two fellowships in order that I could tell more people about their work and our experience. I shall be applying for future funding in order to support the project into its next phase.

For Warwick we have identified how well the URSS is doing nationally, but also how it could be improved to be more inclusive. Some of our recommendations have been acted upon already; others will take more time.

Additionally we have identified a route through which Warwick could address many of its institutional strategic targets and desires (Education, WP, and Research) and become a highly placed strategic forerunner of providing an inspirational offering for WP students. Again this is likely to take some time, but realistically the time is now.

For Warwick also we now have a fully demonstrable case study of how to work with Students as Partners in a full academic setting. Again as we look at the subtle nuances of how knowledge is produced and perceived, putting student opportunities into place where our cohorts can direct and be involved in their own learning will be of great value to them and also the institution.

Nationally we have been working with external colleagues, informing them of our progress regarding WP and Undergraduate Research; working with Students as Research Partners and sharing our reflections upon the process.

The *wrap* project has allowed us to contribute to internal, national and international discussions; providing evidenced based research to allow policies and strategy to move on. For me there have been two successes here: the research and my student colleagues.

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https://warwick.ac.uk/services/skills/pgr/programme/widening_research_and_participation/

Education Strategy Priorities 2019/2020

1. Student experience and engagement	<ul style="list-style-type: none"> • Establish an effective communications network across academic departments and professional support services in relation to student opportunities, changes in policy, survey and feedback activity, and other improvement in teaching and learning. • The University and SU to improve the academic representation system in collaboration, consultation and communication with departments. • Development of approaches that engender greater student engagement with learning, such as using the principles of effective learning communities and peer mentoring.
2. Internationalisation	<ul style="list-style-type: none"> • Formulate and consult on education internationalisation strategy. • Double the number of students participating in Intercultural Learning in 2019/20. • Develop EUtopia education package, including diverse and innovative mobility opportunities.
3. Postgraduate community and engagement	<ul style="list-style-type: none"> • Doctoral College to ensure PGRs are given full consideration in developing all University strategies, including education, research, and internationalisation. • Doctoral College to deliver improved support to PGRs including sick-pay, increased scholarships, skills development, and support for CDTs. • Establishment of a PGT strategy working group to develop a strategy for approval in 2019/20 to address PGT student experience and appropriate changes in BGS and Faculty Education Committee terms of reference.
4. SPI	<ul style="list-style-type: none"> • SPI projects to be delivered in 2019/20, include: Mitigating Circumstances, Module Approval, Module Catalogue, Course Approval, Student Mobility Workflow, Universal Admissions (Direct Entry), Student Finance Management. • SPI continues work towards delivery of Module Selection, Exam Board processes, and PGR examination processes. • Learner Analytics accelerated into development phase (including components marks management and simplified and robust attendance monitoring) for progressing work on continuation, retention and attainment for WP and outstanding outcomes for all students.
5. Review of Assessment	<ul style="list-style-type: none"> • Commence implementation of outcomes from Review of Assessment relating to assessment strategies and continue with implementation work on mitigating circumstances.

	<ul style="list-style-type: none"> • Continue work on examination board operations and develop policy and guidance. • Review regulatory framework and make appropriate changes relating to assessment regulations.
6. Curriculum development	<ul style="list-style-type: none"> • Development of central resources for supporting departmental curricula reform to align with new credit framework and assessment strategies, promote interdisciplinarity, embed employability and skills, and ensure inclusivity. • Review credit and module framework and its application to postgraduate taught courses. • Initiate University-wide consultation on timing of examinations and the potential for considering the overall shape of the academic year.
7. Employability Strategy	<ul style="list-style-type: none"> • Delivery of a new central campus Student Opportunity Hub, acting as the focal point for the delivery of co-curricular opportunities and services to students. • Development of a Placement-Learning team to provide institutional support for academic departments to embed placement learning and source placement opportunities for students. • Define 'Warwick Core Skills', consult with departments and students, improve communication and governance of skills provision, and create a central portal to demonstrate the full skills offer.
8. TEF Subject-Level	<ul style="list-style-type: none"> • Build on the experience of TEF mock exercise to share best practice in preparing submissions and develop further central capacity for provision of data, departmental TEF leadership, and appropriate student participation. • TEG follow-up on measures for improvement of TEF metrics, including peer dialogue on teaching, module evaluations, personal tutoring, Talis Aspire reading lists. • Progress work on continuation rates, including improving quality of data and availability, removing structural barriers to continuation through curricula design, improving interventions to support staff and students and focus on outstanding outcomes for <i>all</i> students.
9. Widening Participation Strategy	<ul style="list-style-type: none"> • Focus on meeting OfS Access and Participation Plan (APP) targets and improving TEF split metrics through the TEG process to develop and share best practice on WP. • Warwick Scholars further developed as sector-leading programme and work with departments and faculties to ensure embedding and optimisation.

	<ul style="list-style-type: none">• Development of inclusive pedagogic and experiential teaching and learning methodologies to close attainment gaps—including Education Executive and SU co-development of Decolonising Curriculum initiative.
10. Alternative Pathways	<ul style="list-style-type: none">• Continue to grow and enhance work-based learning and degree apprenticeship provision, ensuring successful outcomes and experiences for all learners.• Develop a framework for collaborative provision to enable managed, targeted and strategic growth.• Establish a cross-university working group to survey the external landscape and to explore strategic opportunities to develop new alternative, flexible, and online provision.

Report to Faculty Education Committees			
Reference:	009.SEMEC.19-20	Report classification:	Open
Meeting Date	24 October 2019		
Title	Consultation on the Draft Warwick Core Skills		
Author / Presenter	Prof Pat Tissington: Academic Director, Employability and Skills Roberta Wooldridge Smith: Director of Student Opportunity		
Purpose of Report			Tick all that apply ✓
To provide assurance		To obtain approval	
Regulatory requirement		To highlight an emerging risk or issue	
To canvas opinion	✓	For information	
To provide advice		To highlight student or staff experience	
University Strategy			
Research		Education	✓
Innovation		Inclusion	
Regional Leadership		Internationalisation	
Equality and Diversity			
Are there any equality and diversity implications that would affect the University's obligations under the Public Sector Equality Duty (PSED; to eliminate discrimination, advance equality of opportunity and foster good relations between people) that should be discussed as part of this report? <i>(if yes, details to be provided within the report)</i>			Yes
			No ✓
Summary of Report			
<p>The Employability Strategy approved by Senate in June 2019 contained a requirement to specify the core skills that students will acquire at Warwick:</p> <p><i>Facilitator 2.2 "Creation of "Warwick Core Skills" which detail the employability-related skills that are central to curriculum and co-curriculum.</i></p> <p>As a result, the Warwick Institute for Employment Research (IER) was commissioned to review the literature in this area, analyse the approaches taken by other institutions and from these, create the framework of skills with definitions for use at Warwick. The intent was to create a clearly defined framework that will be used to highlight where skills are being acquired in the curriculum, enable curriculum designers to see where additional provision is needed and provide the basis for reflection on learning. The framework will also be used to highlight to students the skills they acquire outside the taught curriculum for example from working for Unitemps, participation in clubs and societies, sport and volunteering.</p> <p>The full report from IER together with a form for comments from staff and students are here: https://warwick.ac.uk/services/studentopportunity/wcs . The site also includes a booking form for the Town Hall meetings that are being held on 29th October 12-2 in WLT on Westwood Campus and on 7th November 12 to 2 in Social Sciences Building S 0.13 .</p> <p>The following table shows is an extract from the IER report showing the skills derived from the review which consists of a literature review, analysis of provision at competitor institutions and a synthesis into a draft set of 12 skills on which a consultation is under way. In addition to Faculty Education Committees, SLEEC, Employability and Skills Working Group and Education Committee, this paper and the skills framework is open for consultation with students, all staff across the university and external stakeholders such as alumni, employers and professional bodies.</p>			

The committee is requested to note the draft Warwick Core Skills and comments are invited via the consultation page, in person at the Town Hall events, verbally in the meeting or via email to Prof Pat Tissington.

Recommendation

The Faculty Education Committee is invited to:

(a) Note ✓

(b) Approve

Route Map for this Report			
Committee	Date	Reference	Action Requested/Taken
Education Executive	19/09/19		
Faculty Education Committee (Social Sciences)	17/10/19	EFSS.06.19-20	To note
Faculty Education Committee (Arts)	23/10/19		To note
Faculty Education Committee (Science, Engineering and Medicine)	24/10/19	009.SEMEC.19-20	To note
Employability and Skills Working Group	06/11/19		To note
Student Learning Experience and Engagement Committee	14/11/19		To note
University Education Committee	02/12/19		To approve
University Senate			To approve
University Council			To approve

Route Map for this Report			
Committee	Date	Reference	Action Requested/Taken
Education Executive	19/09/19		
Faculty Education Committee (Social Sciences)	17/10/19	EFSS.06.19-20	To note
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Employability and Skills Working Group	06/11/19		To note
Student Learning Experience and Engagement Committee	14/11/19		To note
University Education Committee	02/12/19		To approve
University Senate			To approve
University Council			To approve

	Warwick Core Skill	Descriptor	Education Strategy graduate attributes	Strategic direction	Key goals
1	Critical thinking	<p>Conceptualisation: Recognise patterns in detailed documents and scenarios to understand the 'bigger' picture.</p> <p>Evaluation: Recognise, evaluate and retain key points in a range of documents and scenarios.</p>	Analytical, Critical	Disciplinary excellence	Attributes
2	Problem solving	<p>Reasoning: Use rational and logical reasoning to deduce appropriate and well-reasoned conclusions.</p> <p>Analysing and diagnosing: Analyse facts and circumstances and ask the right questions to diagnose problems.</p> <p>Decision making: Make appropriate and timely decisions, in light of available information, in sensitive and complex situations.</p>	Analytical, Critical	Disciplinary excellence, interdisciplinarity	Attributes
3	Active lifelong learning	<p>Actively seek, monitor and manage knowledge and sustainable opportunities for learning in the context of employment and life.</p> <p>Reflect on, learn from and evaluate personal practices, strengths and weaknesses in the workplace.</p>	Ambitious, Adaptable	Student research, Interdisciplinarity	Attributes
4	Communication (verbal and written)	Verbal: Communicate orally in a clear and sensitive manner which is appropriately varied according to different audiences and seniority levels.	Collaborative, Inclusive	Student research	Attributes

		Written: Present knowledge, in a range of written formats, in a professional, structured and clear manner.			
5	Teamwork and working effectively with others	Operate within, and contribute to, a respectful, supportive and cooperative group climate. Work well in teams.	Collaborative, Inclusive	Interdisciplinarity	Diversity
6	Information literacy (research skills)	Skills related to systematic investigation or inquiry aimed at contributing to knowledge of a theory, topic, etc., by careful consideration, observation, or study of a subject. Original critical or scientific investigation carried out under the auspices of an academic or other institution. (OED online) Access & evaluate information, use and manage information (Partnership for 21st Century Skills Adapted from P21CS (2009)); Retrieve, interpret, evaluate and interactively use information in a range of different formats (Riebe & Jackson, 2014). Research on sources, evidence, biases etc. (Bowman, 2010).	Analytical, Critical	Student research, Interdisciplinarity	Attributes
7	ICT literacy	Use ICT to address diverse tasks and problems.	Analytical, Critical	Student research	Attributes
8	Citizenship (local and global)	Engagement in the duties and responsibilities of a member of society. (OED online) (21st Century Skills AT21CS (B 50 t al., 2010; Bowman, 2010)	Inclusive	Internationalisation	Community and global

9	Ethical values	Remain consistently committed to and guided by core values and beliefs such as honesty and integrity.	Inclusive	Internationalisation	Community and global
10	Inter-cultural learning and diversity awareness	Work productively with people from diverse cultures, races, ages, gender, religions and lifestyles	Inclusive	Internationalisation	Community and global
11	Professionalism	Efficiency; multi-tasking; autonomy; time management; drive; goal and task management(Riebe & Jackson, 2014); Jackson & Chapman, 2012)	Adaptable, Resourceful	Interdisciplinarity, Student research	Attributes
12	Organisational awareness	Understanding of business, government and third sector issues and priorities (Yorke & Knight, 2004)	Ambitious, Resourceful	Internationalisation	Attributes

Report to SEMEC			
Reference:	011.SEMEC.19-20	Report classification:	Open
Meeting Date	24 October 2019		
Title	Warwick Collaborative Postgraduate Research Studentships		
Author / Presenter	Louise Hasler, Secretary to SEMEC		
Purpose of Report			Tick all that apply ✓
To provide assurance		To obtain approval	
Regulatory requirement		To highlight an emerging risk or issue	
To canvas opinion		For information	✓
To provide advice		To highlight student or staff experience	
University Strategy			
Research		Education	✓
Innovation		Inclusion	
Regional Leadership		Internationalisation	
Equality and Diversity			
Are there any equality and diversity implications that would affect the University's obligations under the Public Sector Equality Duty (PSED; to eliminate discrimination, advance equality of opportunity and foster good relations between people) that should be discussed as part of this report? (if yes, details to be provided within the report) [please contact Equality@warwick.ac.uk if you have queries relating to E&D]			Yes
			No ✓
Summary of Report		[Include key points and additional information as necessary regarding purpose of report. A cover sheet should be no more than two sides of A4]	
The purpose of this report is to inform members regarding the spread of successful WCPS awards in 2019 across the departments of the Faculty.			
Recommendation	SEMEC is invited to: (a) Note the spread of successful awards.		

Route Map for this Report			
Committee	Date	Reference	Action Requested/Taken
SEMEC	24 October 2019	011.SEMEC.19-20	To Note

Academic Department	Applicant	Outcome
Chemistry	Prof Sebastien Perrier	CSIRO (partner)
Chemistry	Professor Richard Walton	CASE
Engineering	Professor Jihong Wang	WCPRS
Life Sciences	Dr Rosemary Collier	WCPRS
Physics	Professor Sandra Chapman	WCPRS
Physics	Dr Vasily Kantsler	WCPRS
Physics	Dr Maksym Myronov	CASE
Physics	Dr Wilson	WCPRS
WMG	Professor Alan Chalmers	WCPRS
WMG	Professor James Marco, Dr Anup Barai	WCPRS
WMG	Professor Giovanni Montana	CASE
WMS	Dr Keith Couper, Prof Gavin Perkins, Prof Giovanni Montana	WCPRS
WMS	Dr Kirstie Haywood, Prof Gavin Perkins	WCPRS
WMS	Prof Dimitris Grammatopoulos, Prof Giovanni Montana	WCPRS

Report to the Faculty of Science, Engineering and Medicine Education Committee			
Reference:	014.SEMEC.19-20	Report classification:	Open
Meeting Date	24 October 2019		
Title	Update on Academic Representation Transformation Project – Academic Representation Partnership Agreement		
Author / Presenter	Chloe Batten, Co-Chair of SLEEC and SU Education Officer Ellie King, former SU PG Officer Ashley Storer-Smith, SU Academic Voice Policy Consultant/Supervisor		
Purpose of Report			Tick all that apply ✓
To provide assurance		To obtain approval	
Regulatory requirement		To highlight an emerging risk or issue	
To canvas opinion		For information	✓
To provide advice		To highlight student or staff experience	
University Strategy			
Research		Education	✓
Innovation		Inclusion	
Regional Leadership		Internationalisation	
Equality and Diversity			
Are there any equality and diversity implications that would affect the University's obligations under the Public Sector Equality Duty (PSED; to eliminate discrimination, advance equality of opportunity and foster good relations between people) that should be discussed as part of this report? <i>(if yes, details to be provided within the report)</i>			Yes
			No ✓
Summary of Report			
<p>The Academic Representation Partnership Agreement is a product of the Academic Representation Transformation Project currently being undertaken by the Warwick Students' Union. This agreement enshrines the roles and responsibilities of the Students' Union and the University when it comes to Academic Representation so that there is an effective partnership to support students to become active partners in their academic experience and progression. This Agreement will help with the Institution's compliance with the QAA Quality Code, especially with the Advice & Guidance concerning Student Engagement.</p> <p>The Agreement will be reviewed by the Students Union & the University by September 2024.</p>			
Recommendation	Faculty Education Committee is asked to <u>note</u> the Agreement.		

Route Map for this Report			
Committee	Date	Reference	Action Requested/Taken
Steering Committee	16 May 2019		Recommended.
Education Executive	02 October 2019		Recommended.
SLEEC	09 October 2019	027-SLEEC-091019	To approve.
AQSC	15 October 2019		To note
FEC FSS	17 October 2019	EFSS.09.19-20	To note
FEC Arts	23 October 2019		To note
FEC SEM	24 October 2019	014.SEMEC.19-20	To note



Academic Representation Partnership Agreement

Academic Representation Partnership Agreement

Between

The University of Warwick and Warwick Students' Union

1.0 Purpose

- 1.1 The Academic Representation System is a student-led structure that is jointly operated by the University of Warwick and Warwick Students' Union.
- 1.2 The system seeks to empower students to have an active voice in their education and give them the tools to actively co-create and develop their academic experience.
- 1.3 Students are not limited by this document or representation system in their ability to make change.

2.0 Principles

- 2.1 *"Education at Warwick will be characterised by staff and students working in partnership to co-create the educational experience."* University of Warwick Education Strategy
- 2.2 This agreement sets out the joint commitment of the University and Students' Union to run an effective representation system and is built on a shared interest of independent feedback and promoting good practice within education.
- 2.3 The University and Students' Union recognise the value and importance of an effective academic representation system.
- 2.4 All students must have access to providing feedback on their academic experience, with the ability to make change and co-create their education.
- 2.5 Student representatives must be properly supported, trained, and empowered to be effective in their duties as representatives.
- 2.6 The University and Students' Union believes that effective representation can only exist when structures are inclusive of the diverse student population.

3.0 Structure

- 3.1 The system consists of three levels of representation: Course level (Course Reps); Faculty level (Faculty Reps); and University level (Sabbatical Officers).
- 3.2 The system is inherently democratic, and so all representatives are elected by their fellow students.
- 3.3 Every student should have at least one named course rep who is responsible for representing their feedback at departmental level.
- 3.4 Every faculty should have a group of Faculty Representatives, including at least one representative for Undergraduate, Postgraduate Taught, and Postgraduate Research, who is responsible for representing student interests at faculty level.

- 3.5 Every Warwick student is represented by the Education and Postgraduate Sabbatical Officers at a University level, which is determined by Warwick Students' Union's Article of Association.
- 3.6 Representatives are elected for one academic year, but have the ability to re-stand for election if they are eligible.
- 3.7 The system has effective communication mechanisms between its different levels and representatives, to ensure escalation of student interests and the closing of the feedback loop.
- 3.8 The system recognises the need for flexibility to accommodate different requirements of students, courses, and faculties. Examples of this include part-time students, distance learners, and degree apprenticeship courses.
- 3.9 There will be the Academic Voice Development Group: regular meetings between relevant staff members of the Union and the University to discuss long-term strategic developments of the Academic Representation System to ensure the system is fit for purpose and relevant to the changing needs of student experience.
- 3.10 Attached is a diagram of the Academic Representation Structure (Appendix 1).
- 3.11 Full terms of Reference shall be found in the Academic Reps Guidance Document

4.0 University Roles and Responsibilities

- 4.1 The University will support the Students' Union in developing the Academic Representation System in the following ways:
- 4.2 The University will ensure there is an Academic Convenor (or equivalent) in every department to facilitate meetings of representatives and staff at departmental level. Academic Convenors should hold appropriate responsibility and authority within the department. Academic Convenors will be a key contact for the Students' Union and will inform the Union details of these meetings.
- 4.3 The University will ensure that all Academic Convenors are given all the relevant documentation and have been trained by the Students' Union when appointed and annually for updates on the system.
- 4.4 Academic Convenors will ensure there are a minimum of four meeting per academic year (equivalent to a full-time course) that are attended by relevant staff members.
- 4.5 Academic Convenors will ensure that all the SSLC meetings are accessible to all reps so that all study types are represented.
- 4.6 Academic Convenors will ensure that issues raised by student representatives in meetings are considered by the relevant members of staff (whether internal or external to the department) and that outcomes are reported back to representatives in a timely manner.
- 4.7 Academic Convenors will use SSLC meetings as an opportunity to report results from other feedback methods, such as module feedback forms, module evaluations, and tripartite reviews.
- 4.8 Academic Convenors will contact the Education Team within the Union if they have any concerns about the performance and development of representatives.
- 4.9 Academic staff will actively encourage students to participate in the representation system, either by standing for election or providing feedback to their representatives.

- 4.10 The University will ensure that the student voice is adequately heard and acted upon at all levels of representation.
- 4.11 The University will ensure there is at least one Student Engagement Co-ordinator (SEC) in every faculty.
- 4.12 SECs support the development and implementation of the Academic Reps System within their Faculties. This includes working with Academic Convenors, Faculty Reps, and the Students' Union nominated staff member for the faculty.
- 4.13 SECs will organise, in partnership with the Students' Union, regular Strategy Meetings of student representatives and University staff. These meetings will focus on the long-term development of the Academic Representation System as a place for co-creation of the academic experience.
- 4.14 Student Engagement Coordinators sit on Academic Voice Development Group as representatives of the Academic Convenors and to support the distribution of changes to the system.
- 4.15 The University will utilise the Academic Representation System to consult the student population on anything affecting the student experience, but recognise that this is only one of many channels to gather student opinion.
- 4.16 The University will use the Academic Representation System to promote the positive changes made by student feedback, thus closing the feedback loop.

5.0 Students' Union Roles and Responsibilities

- 5.1 The Students' Union is responsible for overseeing, supporting and developing the Academic Representation System with support from the University.
- 5.2 The Students' Union will administer the election of all representatives according to the Students' Union Election Regulations & the Academic Reps Guidance Document.
- 5.3 The Union will seek to ensure diversity of the Representation System through a range of initiatives and activities encouraging diverse student participation.
- 5.4 The Union will collate the details of all representatives and ensure this is communicated to the University in a timely manner.
- 5.5 The Union will ensure that every student has the ability to easily find out who their representatives are.
- 5.6 The Union will organise and deliver training to all representatives which will enable them to fulfil their basic responsibilities.
- 5.7 The Union will deliver bespoke training for specific roles so they can effectively contribute to the system, i.e. SSLC Chair and Secretary Reps, Faculty Reps.
- 5.8 The Union will provide a range of resources to support student representatives in their understanding of and involvement in the system.
- 5.9 The Union will deliver opportunities that will support representatives in their personal and professional development.
- 5.10 The Union will provide ongoing support and guidance to Academic Representatives including policy briefings and research reports, so they can effectively create change.

- 5.11 The Union will monitor participation in the Representation System, ensuring that student representatives are fully supported in their roles and any problems are addressed.
- 5.12 The Union will organise and deliver events and activities for students to contribute on specific educational issues and debates, whether they're representatives or not.
- 5.13 The Union will ensure that SSLC Chair and Secretary Reps are supported in the writing of their end of year reports.
- 5.14 The Union will organise and deliver, in partnership with SECs, annual training and development for all university staff involved in the Academic Representation System to inform and support staff on the delivery and promotion of an effective system.
- 5.15 The Union will provide a range of resources for university staff to provide more information on the Academic Representation System and new developments of this.
- 5.16 The Union will ensure that information and developments within the System are effectively communicated to the University in a timely manner.
- 5.17 The Union will annually collate and deliver reports on the activities, concerns and achievements of the Academic Representation System to the Faculty Reps and the University Education Policy & Quality Department.

6.0 Accountability

- 6.1 If a Representative (excluding Sabbatical Officers) leaves during their term of office then every effort will be made by both parties to secure a new representative for the remainder of their term, where appropriate, and the Union will administer this process.
- 6.2 If it is felt by the constituency of a representative that they are not performing adequately in their role, the Union Academic Representation Staff Team (sslc@warwicksu.com) should be contacted to discuss what relevant processes are available to ensure that the constituency is properly represented. The performance of the representative will be measured against the student rep role descriptors available in the Rep Handbooks, and the Academic Reps Guidance Document.
- 6.3 If either Party feels that this Agreement is not being adhered to, the issue should be raised with the following people/bodies:
- For SSLC related issues, the Union Academic Representation Staff Team and/or an Academic Convenor
 - For Faculty & University level related issues, the relevant SU Sabbatical Officers and/or a Student Engagement Co-ordinator
 - For Academic Rep System issues, the Academic Voice Development Group
 - For issues escalated from previous stages, The SU President and/or Pro-Vice Chancellor (Education)

Implementation Plan

For University implementation, this agreement will go through the committees below for approval.

9th October – SLEEC

2nd December – Education Committee

29th January – Senate

11th February – Council

This agreement will also go to the following committees to note.

15th October – Academic Quality Standards Committee

17th October – Faculty Education Committee (Social Sciences)

23rd October – Faculty Education Committee (Arts)

24th October – Faculty Education Committee (Science, Engineering & Medicine)

For Union implementation, this agreement will go through the committees below for approval.

Report to the Faculty of Science, Engineering and Medicine Education Committee			
Reference:	015.SEMEC.19-20	Report classification:	Open
Meeting	24 October 2019		
Title	Results of the National Student Survey 2019		
Author	Professor Chris Hughes, Pro-Vice-Chancellor (Education) Professor Gwen van der Velden, Deputy Pro-Vice-Chancellor (Student Learning Experience) Dan Derricott, Assistant Registrar, Education Policy and Quality		
Purpose of Report			
To provide assurance	✓	To obtain approval	
Regulatory requirement		To highlight an emerging risk or issue	
To canvas opinion		For information	✓
To provide advice		To highlight student or staff experience	✓
University Strategy			
Research		Education	✓
Innovation		Inclusion	
Regional Leadership		Internationalisation	
Summary of Report			
<p>With another strong response rate, the National Student Survey continues to provide a robust, reliable dataset to inform how we enhance the student learning experience. The 2019 results show that we are making good progress in sustainably enhancing the student experience. We are now fourth in the Russell Group for Overall Satisfaction after improving 3% overall and improving in 16 out of the 23 individual departments with two years of data.</p> <p>Satisfaction with feedback on assessments is the highest it has been in five years and satisfaction with student voice is the highest it has been in the three years since the questions were added. This is encouraging but is a position that needs building upon further in order to mitigate the continuing risks for TEF. Where continued improvement is needed, the Education Strategy is delivering structural transformation to achieve this, including through the Review of Assessment, the review of the Credit & Module Framework, the Personal Tutoring Review, new policies on module evaluation and peer observation of teaching, the Employability Strategy, and the Student Personalised Information and the Accessing Opportunities and Services Programmes (SPI and AOS).</p> <p>In the optional questions we participated in, we can see improvements in questions relating to student workload, careers, employability and skills. Satisfaction with the experience of selecting optional modules is varied across departments, however there was a common strength of feeling in the comments suggesting that better information and a clearer process for selecting modules across departments were crucial. Work underway in SPI to improve Module Selection and in the review of the Credit & Module Framework can be shaped by this feedback and subsequently deliver the necessary enhancements to improve the student experience.</p> <p>The implementation of university-wide change is being underpinned by Teaching Excellence Group (TEG) engagements with all academic departments, to ensure alignment between institutional and departmental efforts, and by preparations for subject level TEF which is ensuring a data-driven, focused approach. In turn, there is a strengthening link between TEG/TEF and the Academic Resourcing Committee, which allows decisions on resourcing and investment to support the strategy. This alignment of processes together with a re-doubling of effort to enhance the student learning experience will continue to move us in the right direction.</p>			
Recommendation	Members are invited to <u>note</u> the feedback given by students through the NSS and the action underway that will improve the student learning experience.		
Route Map for this Report			
Committee	Date	Action Requested/Taken	
Steering Committee	23/09/2019	To <u>note</u> the results and action underway.	
Senate	02/10/2019		
Council	09/10/2019		
SLEEC	09/10/2019		
AQSC	15/10/2019		
Social Sciences Faculty Education Committee	17/10/2019		
Arts Faculty Education Committee	23/10/2019		
SEM Faculty Education Committee	24/10/2019		
Education Committee	02/12/2019		

Results of the National Student Survey 2019

Introduction

The National Student Survey (NSS) ran for the sixteenth time in 2019 and for the third time with the current question set. Our growth in undergraduate intakes again resulted in the largest number of responses to date (n = 3,371) and despite a challenging year for student sentiment on campus, the response rate was again a strong 78%. All 26 eligible departments recorded response rates above 55% and 23 of them exceeded 70%. This is a robust, reliable dataset to inform how we enhance the student learning experience.

In addition to the core 27 questions that all respondents answer, we opted into four optional banks of questions on course content and structure, workload, careers, and employability and skills. For the first time, we also added two bespoke questions for Warwick students about their experience of selecting and studying optional modules. This report summarises the feedback students gave in each of these core, optional and bespoke questions for the University as a whole. Further university-level analysis and departmental results are provided in the appendices.

Headline results



NSS Results for the University of Warwick 2015 – 2019 (% Agree)

The results for the University overall and in the majority of academic departments were positive with improvements in most core sections compared to last year. For the University overall, the results remained steady (+/- 1%) or improved in all but two questions, and increased by 2% to 87% for Overall Satisfaction, which places us 4th in the Russell Group and 3% ahead of UK sector average.

Survey Section	NSS 2019 (% Agree)	% change vs. 2018	Sector		Russell Group	
			Rank	Change	Rank	Change
Overall satisfaction	86.8	+2.2	30	+35	4	+6
Teaching	85.1	+0.8	55	+24	8	+3
Assessment & Feedback	72.4	+2.3	83	+21	2	+6
Academic Support	78.6	+2.8	100	+25	6	+9
Learning Resources	86.3	-0.6	83	-20	24	-1
Student Voice	76.2	+2.2	48	+28	6	0

Additionally, the following insights can be drawn from the results of the 27 core questions:

- Our improvements are more stable across departments this year. The majority of departments (16 out of the 23 with two years of data) improved on overall satisfaction, suggesting that we are improving in a systematic and consistent manner.
- Major University-wide initiatives on personal tutoring, assessment feedback, student voice and student systems are working and being further promoted through the Teaching Excellence Group (TEG) engagements with academic departments. Students are beginning to see the

benefits of our structural changes that will deliver and sustain change across the board in way that recognises our interdisciplinary and connected curriculum.

- Student satisfaction with feedback on assessments is the highest it has been in the last five years and we are 2nd in the Russell Group for assessment and feedback overall.
- Student satisfaction with student voice is the highest it has been in the three years since the questions were added. We are now ahead of the sector average and expect further improvements as a result of a coordinated effort across departments, faculties, the University and the Students' Union.
- Senate has already agreed the University's first Employability Strategy and plans for a refreshed Credit & Module Framework, and we have started work on improving the way students choose and study optional modules. These will deliver improvements in the areas where we want to further improve or solidify our lead over the sector, meaning that we will soon have programmes of work driving structural, sustainable change across all areas covered in NSS.
- A number of subjects compare particularly well the sector average for their subject:
 - **Education** is first in the sector and Russell Group for Teaching, Academic Support, Organisation and Management, and first in the Russell Group in Learning Opportunities, Assessment & Feedback.
 - **Politics** is first in the Russell Group for Learning Opportunities, Assessment and Feedback, Academic Support, Organisation and Management, and Student Voice.
 - **Civil Engineering** is first in the sector for questions on the course being well organised, opportunities to provide feedback on their course, and second in the Russell Group for Teaching overall and Assessment and Feedback. **Electrical Engineering** is first in the Russell Group for Learning Opportunities, Learning Community and Student Voice.
 - **Film and TV** is first in the Russell Group and second in the sector for Overall Satisfaction, and is first in the Russell Group and first in the sector for the question on the course being intellectually stimulating.
 - **Chemistry** is first in the Russell Group for Learning Community and Student Voice, and is second for Learning Opportunities and Overall Satisfaction.
 - **Physics** is first in the Russell Group for Overall Satisfaction, and is second for Learning Resources and Assessment and Feedback.
- There were a number of subjects where student satisfaction declined from previous years. The relevant academic departments have already been proactive in responding to this and are working with the Education Executive to secure improvements for the coming year.

The full set of results for the University is appended.

Optional banks of questions

55% of students (around 2,400) completed the four banks of optional questions this year. Each institution opts into different (if any) banks of questions and therefore the sample size varies and does not reflect the full diversity of the sector.

The sector sample size for course content and structure is the smallest of the four banks at 15,091 (of which 2,400 are Warwick students) and making sector comparisons is therefore less helpful. Within the University, Economics, Classics, Maths and Physics performed best in these questions.

We have improved in each question related to workload, especially in workload being manageable which improved by 4% and now sits slightly ahead of the sector (based on 22,348 responses). Within the University however, the results across departments are diverse. Fewer than half of students in several departments agree that *the course does not apply unnecessary pressure on me as a student* or that *the volume of work on my course means I can always complete it to my satisfaction*.

On the careers, employability and skills related questions, we have seen small improvements compared to last year but not by enough to move us ahead of the sector. While our students believe their course has improved their career prospects more so than at other institutions, we are still 3.55% behind the average of participating institutions (based on 41,231 responses) for there being good advice available for making careers choices.

Bespoke questions on optional modules

For the first time this year, we asked students two bespoke questions about optional modules. 84.8% of students agreed or strongly agreed with the statement *selecting optional modules to study on my course was straightforward*. This was highest in Sociology, Life Sciences and Theatre, and it was lowest in CAL, WMS and CLL.

Students were also asked *what the University could do to improve the experience of selecting and studying optional modules*. In analysing the free-text comments, the most prominent theme (over 400 comments) is 'information' (or lack thereof). This includes up-to-date information about module content, assessment methods and timetabling predictability, as well as a desire for clarity about the process of selecting optional modules, particularly for those students wishing to take a module that is taught outside of their home department and where the module registration process may differ or for students on joint degrees.

Priority Actions

The Education Strategy, approved by Senate and Council in 2019 seeks to deliver a structural transformation in our approach towards enhancement the student learning experience, with clear targeted efforts relating to each of the key aspects in 2019/20 as follows:

- **Teaching:** implementation of the University's new policy on annual engagement with Peer Dialogue on Teaching (approved by Senate in July 2019) and consistent use of Module Evaluations incorporating student feedback.
- **Assessment and Feedback:** revision of assessment criteria, Review of Assessment and Credit Framework (approved by Senate in July 2019), including introduction of a wider range of assessment methods aligned to employability and other aspects of authentic assessment.
- **Academic Support:** completion of implementation of the Personal Tutoring Review; improved information provision for students through the SPI and AOS programmes; increase in the number and enhanced role consistency of departmental Directors of Student Experience; and improved mechanisms for Module Selection.
- **Student Voice:** introduction of common standards for student engagement; increased investment in student communications; and the Transformation of Student Representation project led by the Students' Union.
- **Learning Resources:** establishment of higher and consistent standards for teaching and learning spaces and study spaces; fuller uptake of Talis Aspire digital reading lists; and refurbishment of sections of Library.

In addition to these coordinated university-wide enhancements, the newly created Teaching Excellence Group (TEG) engagements and an enhanced approach to survey action planning as part of TEG provide a focal point for considering which targeted, department-specific actions are needed. The second full round of TEG meetings will take place in October and November 2019, with a clear of

focus on evaluating the impact of actions over the last year and agreeing a concise set of enhancement priorities for the coming year.

The SPI and AOS Programmes continue to develop underpinning improvements across interfaces with students both in terms of core systems developments (SPI) and the provision of student-centred information based on data and analysis from SPI systems (AOS).

Conclusion

There is much to celebrate in these results. They show that we are making good progress in putting in place the foundations for enhancing the student experience, and that this is having an impact for a wide and diverse range of academic departments. However, we are still in the early stages of this work and any progress made could be lost if we do not maintain the momentum. In particular, the change in culture to prioritise the student learning experience, the bolstering of departmental leadership capacity to drive strategic improvements, and the systems that support continuous reflection and improvement within course teams all need to be embedded further. This requires a continued whole-university commitment that is operationalised in the context of each department.

Professor Chris Hughes
Pro-Vice-Chancellor (Education)

Professor Gwen van der Velden
Deputy Pro-Vice-Chancellor (Student Learning Experience)

Dan Derricott
Assistant Registrar, Education Policy and Quality

Appendix A: University of Warwick results from the NSS 2015 – 2019

		University of Warwick					2019 results compared to...	
		2015*	2016*	2017	2018	2019	2018	Sector
T	The teaching on my course	88	88	84.7	84.2	85.1	0.8	1.1
	1. Staff are good at explaining things.	90	91	88.9	88.1	88.7	0.7	0.1
	2. Staff have made the subject interesting.	83	82	80.0	79.4	81.7	2.3	-0.2
	3. The course is intellectually stimulating.	88	91	89.8	89.8	89.9	0.0	5.3
	4. My course has challenged me to achieve my best work.	90	88	80.4	79.7	79.9	0.2	-1.0
LO	Learning opportunities			82.0	80.9	82.4	1.5	-0.7
	5. My course has provided me with opportunities to explore ideas or concepts in depth.			86.8	84.8	86.0	1.2	2.0
	6. My course has provided me with opportunities to bring information and ideas together from different topics.			84.6	84.5	85.7	1.2	1.1
	7. My course has provided me with opportunities to apply what I have learnt.			74.8	73.5	75.7	2.2	-5.3
AF	Assessment and feedback	70	70	69.8	70.1	72.4	2.3	-1.2
	8. The criteria used in marking have been clear in advance.	70	72	65.6	66.3	67.7	1.4	-5.2
	9. Marking and assessment has been fair.	77	77	70.4	69.3	71.9	2.5	-0.9
	10. Feedback on my work has been timely.	71	70	74.2	76.3	77.7	1.4	3.4
	11. I have received helpful comments on my work.	67	66	69.0	68.7	72.5	3.8	-2.0
AS	Academic support	81	82	77.5	75.9	78.6	2.8	-1.2
	12. I have been able to contact staff when I needed to.	90	91	88.8	87.0	88.8	1.9	2.6
	13. I have received sufficient advice and guidance in relation to my course.	78	78	73.8	72.8	76.8	4.0	-1.8
	14. Good advice was available when I needed to make study choices on my course.	76	78	69.5	67.9	70.5	2.6	-4.2
OM	Organisation and management	81	82	79.0	78.1	78.7	0.6	3.8
	15. The course is well organised and running smoothly.	81	82	77.9	74.3	76.5	2.2	6.1
	16. The timetable works efficiently for me.	83	82	77.9	80.1	78.3	-1.8	0.6
	17. Any changes in the course or teaching have been communicated effectively.	80	81	81.4	80.0	81.5	1.5	4.6
LR	Learning resources	89	86	86.5	86.9	86.3	-0.6	0.7
	18. The IT resources and facilities provided have supported my learning well.	93	90	85.2	85.6	84.7	-0.9	1.4
	19. The library resources (e.g. books, online services and learning spaces) have supported my learning well.	89	82	86.8	86.2	85.6	-0.6	-1.3
	20. I have been able to access course-specific resources (e.g. equipment, facilities, software, collections) when I needed to.	86	85	87.8	89.0	88.7	-0.2	1.8
LC	Learning community			76.9	74.2	74.8	0.6	-0.9
	21. I feel part of a community of staff and students.			70.9	68.3	68.3	0.0	0.2
	22. I have had the right opportunities to work with other students as part of my course.			83.0	80.2	81.2	1.1	-2.1
SV	Student Voice			74.2	74.0	76.2	2.2	2.6
	23. I have had the right opportunities to provide feedback on my course.			84.9	85.9	87.9	1.9	3.4
	24. Staff value students' views and opinions about the course.			75.1	74.8	77.2	2.4	1.7
	25. It is clear how students' feedback on the course has been acted on.			62.5	61.1	63.5	2.4	2.6
SU	The SU effectively represents students' academic interests.	77	71	50.2	50.1	48.1	-2.0	-7.7
OS	Overall satisfaction	87	88	86.1	84.6	86.8	2.2	3.3

Where data is provided from 2015 and 2016 for comparison, the wording of the question may differ and is noted to the right of the results for information. *

Appendix B: Section-by-section analysis of NSS 2019 results for the University overall

Teaching

Results have remained stable at Warwick, with the exception of a 2.3% increase to 81.7% in Q2 staff have made the subject interesting, however this still scores less favourably than other questions in the section and remains a priority for improvement. We remain broadly in line with the sector except for Q3 The course is intellectually stimulating, which is our strongest scoring question at 89.9% and for which we remain 5% ahead of the sector and firmly in the top quartile.

Learning Opportunities

Modest improvements have been made in all questions. We perform less well in Q7 My course has provided me with opportunities to apply what I have learnt (up 2.2% to 75.7%) and for the second year running, this is where we are furthest behind the sector (-5.3%) other than the SU question. The agreed outputs of the Review of the Credit & Module Framework and the Employability Strategy will begin to impact curriculum design soon and, ultimately, NSS results.

Assessment and Feedback

Student satisfaction with feedback on assessments is the highest it has been in the last five years. In that time, the helpfulness of feedback has improved by 5.5% to 72.5% and the timeliness has improved by 6.7% to 77.7%, and we now sit comfortably ahead of the sector by 3.4% in the latter.

We have started to recover lost ground on Q8 The criteria used in marking have been clear in advance (up 1.4% to 67.7%) and Q9 Marking and assessment has been fair (up 2.5% to 71.9%). However, we are still significantly behind the sector on Q8 (clear criteria) by 5.2%, which is having the biggest impact on the section average and will be holding us back in TEF. Improving the way that students are supported to understand marking criteria should be a priority and is quicker win than some of the longer-term outcomes of the Review of Assessment.

Academic Support

After two years of decline, we have started to improve in each question. This includes Q13 I have received sufficient advice and guidance in relation to my course, which improved by 4% to 76.8% and was the largest year-on-year increase amongst the 27 core questions. Two of three questions (13 & 14) remain behind the sector (by -1.8% and -4.2%, respectively) and suggest we need to consolidate and build on the progress made. In particular, embedding better personal tutoring and delivering on plans for module selection are likely to bring further improvements in each of the next three years.

Organisation and Management

We are furthest ahead of the sector in this section overall than any other (+3.8%) and it is one of two where we are ahead of the sector in each individual question. Q15 The course is well organised and running smoothly is now the individual question we are furthest ahead of the sector in (+6.1%). In contrast, we lost our modest lead on the sector and progress made last year in Q16 The timetable works efficiently for me after a 1.8% decline to 78.3% satisfaction.

Learning Resources

This is a section of mixed messages. Like the sector, this is still our highest scoring section overall and we still hold up well on IT resources and course-specific resources despite there being marginal reductions in satisfaction compared to last year and we losing some of our modest lead over the sector. Looking at the five year trends in this section, there is contrast between these two questions. Results have declined each year on IT resources, suggesting that we might not be meeting increasingly demanding student expectations, but the course-specific resources question is one of just three where we are ahead of our 2015 results.

For the last four years, Q19 on library resources and learning spaces has scored the least well in the section and has never fully recovered the 7% drop between NSS in 2015 and 2016. A slight decline of 0.9% this year to 84.7% leaves Warwick 1.3% behind the sector average.

Learning Community

Q21 I feel part of a community of staff and students stayed at 68.3% this year against a decline in the sector average, meaning that we are now more in line with the sector. This stability at institutional level masks that 20/25 departments saw a change of at least +/-2% compared to 2018. Mature students (predominantly in WMS and CLL) and Black students continue to express lower satisfaction while EU (non UK) students continue to express higher satisfaction. Q22 I have had the right opportunities to work with other students as part of my course modestly improved by 1.1% to 81.2%, narrowing the gap to the sector average of 83.4%.

Student Voice

Good improvements across the board in the section have taken us ahead of the sector average by 2.6% and have given our strongest results in the three years that these questions have been asked. 17 of 25 departments improved in this section, with 12 of those seeing improvements of at least 4.5%. The declines have mostly come in departments that were already strong in this area, which shows how difficult it is to maintain satisfaction in this area. WP and EU (Non UK) students express higher satisfaction than their Warwick peers and the same groups in the sector. Satisfaction amongst Black students improved considerably this year, meaning that significant differences to the Warwick or sector averages no longer exist. The significant investment through departmental Directors of Student Experience together with faculty, university and SU leadership is beginning to pay dividends, and has the potential to see sustained improvements for some years to come.

Students' Union

The OfS now report this question separately to Student Voice section and it is important to note that its emphasis changed considerably in 2017 to how the SU represents students' academic interests. A 2% decline this year is slightly more than a sector decline of 1.1%, meaning we now sit further behind the sector (-7.7%) – more so than in any other question. Most departments results range between 30% and 60%, but 15/24 departments with two years of data showed a decline (compared to nine departments declining from 2017 to 2018).

Overall Satisfaction

After two years of decline, we have recovered part of that loss with a 2.2% improvement to 86.8% (rounded to 87%) overall satisfaction, which takes us more comfortably ahead the sector in England (+3.3%). This is the result of a strong show in the majority of departments, with 16/23 improving this year (11 improved by at least 3.8%). Overall satisfaction amongst Black students improved by 8.6%, meaning it still sits 5% behind the Warwick average but is no longer behind the sector average for Black students. Students with a learning disability expressed 4.2% lower overall satisfaction than the Warwick average, but slightly higher satisfaction (+1.4%) than the same group in the sector. Overall satisfaction amongst Mature students improved by 5% this year – owing to improvements in WMS - but still remains significantly behind the Warwick average (-11.6%) and the sector average (-8.4%).

Appendix C: NSS 2019 Results by Department

Department		2019 Response		The teaching on my course				Learning Opportunities				Assessment and feedback				Academic support				Organisation and management				Learning resources				Learning community			Student Voice			SU	Overall			
		Number of Respondents (headcount)	Response Rate	The teaching on my course	1. Staff are good at explaining things.	2. Staff have made the subject interesting.	3. The course is intellectually stimulating.	4. My course has challenged me to achieve my best work.	Learning opportunities	5. My course has provided me with opportunities to explore ideas or	6. My course has provided me with opportunities to bring information and	7. My course has provided me with opportunities to apply what I have	Assessment and feedback	8. The criteria used in marking have been clear in advance.	9. Marking and assessment has been fair.	10. Feedback on my work has been timely.	11. I have received helpful comments on my work.	Academic support	12. I have been able to contact staff when I needed to.	13. I have received sufficient advice and guidance in relation to my course.	14. Good advice was available when I needed to make study choices on my	Organisation and management	15. The course is well organised and running smoothly.	16. The timetable works efficiently for me.	17. Any changes in the course or teaching have been communicated	Learning resources	18. The IT resources and facilities provided have supported my learning	19. The library resources (e.g. books, online services and learning spaces)	20. I have been able to access course-specific resources (e.g. equipment,	Learning community	21. I feel part of a community of staff and students.	22. I have had the right opportunities to work with other students as part of my	Student Voice	23. I have had the right opportunities to provide feedback on my course.	24. Staff value students' views and opinions about the course.	25. It is clear how students' feedback on the course has been acted on.	The students' union (association or guild) effectively represents students'	Overall satisfaction
Warwick Overall		3371	78%	85.1	88.7	81.7	89.9	79.9	82.4	86.0	85.7	75.7	72.4	67.7	72.5	78.6	88.8	76.8	70.5	78.7	76.5	78.3	81.5	86.3	84.7	85.6	88.7	74.8	68.3	81.2	76.2	87.9	77.2	63.5	48.1	86.8		
ET	CAL	21	100%	88.1	95.2	90.5	85.7	81.0	87.3	81.0	95.2	85.7	75.8	66.7	76.2	76.2	85.0	84.1	95.2	95.2	61.9	81.0	66.7	76.2	100	81.8	75.0	90.5	81.0	88.1	81.0	95.2	87.3	95.2	90.5	76.2	42.9	95.2
EQ	CES	12	86%	97.9	100	100	100	91.7	91.7	91.7	100	83.3	89.6	83.3	83.3	91.7	100	97.2	100	91.7	100	94.4	100	83.3	100	86.1	75.0	91.7	90.9	87.5	91.7	83.3	91.7	91.7	100	83.3	75.0	100
CH	Chemistry	116	79%	90.7	96.6	87.1	95.7	83.6	89.7	93.1	85.3	90.5	73.1	75.0	78.5	67.2	71.6	87.1	96.6	87.1	77.6	83.1	86.2	73.3	89.6	87.6	88.7	79.8	94.0	87.1	84.4	89.7	95.1	97.4	95.7	92.2	44.4	96.6
CX	Classics	52	80%	90.4	98.1	90.4	90.4	82.7	81.4	88.5	78.9	76.9	79.8	82.7	80.8	71.2	84.6	87.8	90.4	88.5	84.3	84.6	78.9	88.5	86.3	76.3	75.0	76.9	77.1	69.2	65.4	73.1	78.2	84.6	80.8	68.6	54.0	84.6
CE	CLL	76	76%	85.9	84.2	88.0	90.8	80.3	85.5	88.2	86.8	81.6	79.6	73.7	68.4	92.1	84.2	66.7	81.6	61.8	55.4	63.6	55.3	75.0	60.5	70	64.9	77.6	68.0	72.4	58.1	85.5	77.2	85.5	77.6	68.4	43.5	76.3
CS	Computer Science	124	79%	70.2	69.4	61.3	79.8	70.2	71.0	72.6	69.4	71.0	47.2	46.8	52.4	52.4	37.1	66.7	76.6	63.4	58.5	61.0	54.8	62.1	65.3	75.3	77.4	67.8	80.2	70.6	59.4	82.1	52.2	63.7	54.8	37.9	29.8	68.6
GD	Cross-Faculty: GSD	53	70%	85.9	86.8	88.7	86.8	81.1	81.8	84.9	90.6	69.8	76.4	71.7	58.5	90.6	84.9	82.4	90.6	84.9	71.2	78.6	75.5	81.1	78.4	83.3	80.8	86.5	83.3	87.7	77.4	98.1	76.7	84.9	83.0	62.3	57.7	83.0
IP	Cross-Faculty: L-Arts	10	77%	92.5	100	100	90	80	93.3	100	100	80	87.5	70	100	90	90	83.3	100	80	70	90	90	90	90	90	90	90	90	100	100	100	83.3	90	80	80	80	90
EC	Economics	303	82%	86.8	89.4	83.5	91.8	82.5	83.7	89.4	82.8	78.9	75.7	69.0	78.2	77.2	78.6	80.7	90.3	80.3	72.8	86.1	86.5	87.8	84.4	88.1	86.0	88.4	89.7	76.2	67.7	84.8	79.2	92.4	79.2	66.1	50.2	88.5
ES	Engineering	211	76%	82.1	85.3	73.5	87.2	82.5	83.7	84.4	88.2	78.7	68.8	65.4	68.3	77.3	64.5	75.8	87.6	75.7	65.2	76.9	68.7	75.8	86.3	87.1	91.5	80.6	89.1	82.6	71.6	93.3	74.6	89.5	72.3	61.7	44.8	87.6
EN	English	87	56%	88.2	90.8	92.0	94.3	75.9	84.7	88.5	90.8	74.7	63.5	35.6	70.1	71.3	77.0	70.7	81.6	72.4	58.1	74.9	66.7	80.5	77.7	79.1	70.9	87.4	80	56.9	60.5	54.1	57.1	72.4	67.8	30.2	45.9	94.3
FI	Film and TV Studies	29	78%	93.1	93.1	96.6	100	82.8	89.7	96.6	86.2	86.2	78.5	75.9	72.4	82.8	82.8	87.4	96.6	86.2	79.3	65.5	65.5	69.0	64.3	85.1	75.9	89.7	89.7	69.6	71.4	67.9	69.1	89.3	75.0	42.9	55.6	96.4
HI	History	193	71%	90.5	94.3	93.2	92.7	81.9	85.3	92.8	88.6	74.6	77.6	71.5	78.8	74.1	86.0	80.1	93.8	78.2	68.1	76.5	64.3	83.4	81.9	87.4	81.2	93.3	87.8	57.6	54.2	60.9	75.2	87.0	75.8	62.8	43.1	89.5
HA	History of Art	25	68%	91.0	96.0	92.0	96.0	80	90.7	100	84.0	87.5	59.0	48.0	44.0	72.0	72.0	82.7	100	84.0	64.0	68.0	64.0	72.0	70.8	78.7	80	76.0	80	86.0	88.0	84.0	65.3	88.0	72.0	36.0	40	92.0
LA	Law	184	76%	82.1	87.0	81.0	88.6	71.7	74.1	82.6	73.4	66.3	64.0	58.2	55.7	77.2	64.7	69.8	82.0	66.3	61.3	75.9	71.6	77.7	78.8	85.6	82.6	89.1	84.4	62.2	62.3	61.3	71.2	88.6	70.1	54.1	47.5	82.4
LF	Life Sciences	207	91%	90.9	95.2	89.9	94.7	84.1	81.2	85.0	83.6	75.4	73.0	62.8	74.9	79.2	74.9	83.4	86.3	81.2	82.4	83.5	85.4	80.2	85.0	88.9	90.8	81.1	94.7	84.8	77.8	91.8	86.8	94.7	89.3	76.5	57.2	93.2
MA	Maths	191	71%	81.8	81.2	69.6	92.2	84.3	79.6	91.1	84.8	62.4	78.0	73.8	88.4	81.6	69.1	79.7	84.3	80.1	74.5	83.5	90.1	74.4	86.2	87.3	86.1	81.1	94.7	67.3	67.5	67.0	66.8	82.7	71.7	46.0	32.3	90.5
PO	PAIS	178	89%	88.8	95.5	87.6	89.3	82.6	86.5	93.8	90.5	75.3	86.8	80.9	83.1	91.6	91.5	87.8	92.7	87.6	82.8	87.7	84.8	90.5	87.9	92.9	89.1	96.1	94.3	68.8	71.4	66.3	88.1	90.9	89.3	84.3	63.4	89.3
PH	Philosophy	158	75%	86.3	91.1	82.3	93.0	79.0	82.9	86.7	91.8	70.3	76.7	70.3	65.8	90.5	80.4	84.2	93.0	81.7	77.9	86.1	93.0	81.0	83.9	87.2	82.5	89.2	90.2	70.6	72.2	68.8	79.1	88.6	82.9	65.4	40	89.2
PX	Physics	120	73%	89.4	92.5	85.0	94.2	85.8	84.4	90	90.8	72.5	83.3	79.2	85.0	88.3	80.8	83.1	93.3	84.9	70.9	81.4	88.3	75.8	80.5	92.8	90.8	92.2	95.0	76.3	64.4	88.3	79.3	94.2	74.1	67.8	44.6	95.0
PS	Psychology	108	79%	82.6	86.1	83.3	92.6	68.5	75.3	75.7	83.3	67.6	63.0	63.0	59.3	75.9	53.7	75.6	88.0	67.6	71.3	82.1	75.9	83.3	87.7	79.6	84.1	72.9	82.2	73.6	61.1	86.1	78.1	86.1	85.2	63.0	58.3	83.3
LN	SMLC	87	66%	85.9	94.3	83.9	88.5	77.0	85.1	90.8	82.6	81.6	78.2	72.4	72.4	86.2	81.6	82.6	97.7	82.8	66.3	77.0	66.7	88.5	75.6	84.3	77.7	87.2	88.4	78.2	73.6	82.8	69.4	83.9	72.4	51.7	49.4	80.5
SO	Sociology	54	81%	86.1	88.9	85.2	94.4	75.9	87.0	90.7	94.4	75.9	76.9	77.8	72.2	75.9	81.5	80.6	85.2	79.6	77.4	84.0	75.9	88.9	87.0	92.6	92.3	90.7	94.3	73.2	64.8	81.1	78.7	87.0	83.3	66.0	62.3	88.9
ST	Statistics	142	80%	80.5	85.2	67.6	85.9	83.1	77.2	84.5	79.6	67.6	67.6	65.5	76.1	63.4	65.5	73.6	88.7	69.8	63.3	77.7	79.6	72.5	81.0	85.2	86.5	80.3	88.0	69.5	60.3	79.3	72.3	90.1	72.3	54.6	49.3	82.3
TH	Theatre	27	73%	87.0	92.6	88.9	85.2	81.5	91.4	88.9	96.3	88.9	75.9	55.6	70.4	88.9	88.9	82.7	85.2	85.2	77.8	63.0	51.9	81.5	55.6	88.9	81.5	88.9	96.3	90.7	85.2	96.3	64.2	77.8	74.1	40.7	59.3	88.9
IB	WBS	469	81%	82.6	89.1	79.7	82.7	78.9	84.5	84.9	90.8	78.0	71.5	72.2	69.1	79.3	65.7	78.2	88.9	75.8	70.1	80	81.0	74.8	84.5	89.3	87.9	89										

Report to the Faculty Education Committee				
Reference:	016.SEMEC.19-20	Report classification:	Open	
Meeting Date	24 October 2019			
Title	Peer Dialogue on Teaching			
Author / Presenter	Mahfia Watkinson, Assistant Registrar (Teaching and Learning)			
Purpose of Report		Tick all that apply ✓		
To provide assurance		To obtain approval		
Regulatory requirement		To highlight an emerging risk or issue		
To canvas opinion		For information	✓	
To provide advice		To highlight student or staff experience		
University Strategy				
Research		Education	✓	
Innovation		Inclusion		
Regional Leadership		Internationalisation		
Equality and Diversity				
Are there any equality and diversity implications that would affect the University's obligations under the Public Sector Equality Duty (PSED; to eliminate discrimination, advance equality of opportunity and foster good relations between people) that should be discussed as part of this report? (if yes, details to be provided within the report) [please contact Equality@warwick.ac.uk if you have queries relating to E&D]			Yes	
			No	✓
Summary of Report				
<p>Further to the paper on Peer Observation and Review of Teaching which was received by the Faculty Education Committee at its last meeting, appended is the Senate approved policy on Peer Dialogue on Teaching.</p> <p>The policy has been developed through work facilitated by the WIHEA Learning Circle on Peer Observation which has included:</p> <ul style="list-style-type: none"> • a review of subject literature, including the HEA Rapid Appraisal Report on Peer Review (2017); • a benchmarking exercise to map current institutional practice of peer observation at Warwick and other selected Higher Education institutions; • an analysis of the relative merits of various approaches adopted by a range of HE institutions; • surveys of Warwick staff opinion conducted in January 2018 and in November/ December 2018; • a consultative event in December 2018 with WIHEA fellows and other interested staff and student reps; and • a consultation with Heads of Departments and Directors of Studies (February-March 2019). <p>Communication has been sent to Heads of Departments regarding the policy and to advise that resources will be provided to support implementation.</p> <p>Departmental plans to develop Peer Dialogue schemes and to publish such schemes online for staff and students by January 2020, will be discussed at Teaching Excellence Group (TEG) meetings scheduled to commence from October 2019.</p>				
Recommendation	<p>The Faculty Education Committee is invited to:</p> <ol style="list-style-type: none"> 1. Note Senate's approval of the policy statement on Peer Dialogue on Teaching its associated policy expectations and guiding principles 2. Consider the different approaches departments are taking to publish Peer Dialogue schemes and identify examples of good practise approaches. 			

University of Warwick
Policy Statement
PEER DIALOGUE ON TEACHING

Context

The University puts in place a number of mechanisms to support the initial and ongoing development of individual teaching practice. One such mechanism commonly recognised in UK higher education is the observation of teaching practice by peers in order to inform a member of staff's own reflection and enhancement. This policy sets out the University's approach to and expectations around this following a period of policy development undertaken by a WIHEA Learning Circle on Peer Observation and as approved by Senate in June 2019.

Policy expectations

The University has formally agreed the following as minimum expectations:

1. The University shall operate 'Peer Dialogue on Teaching' schemes in each academic department to support the development of individual teaching practice. Academic departments may include peer observation of teaching or learning resources within their Peer Dialogue on Teaching schemes but this may be supplemented or replaced by other forms of discussion around teaching and teaching practice.
2. The University requires all staff who teach on foundation, undergraduate or postgraduate taught courses to participate at least annually in Peer Dialogue on Teaching activities, either as an observee, an observer, a participant in discussions relating to enhancement of teaching practice, or similar, or any combination of these. It is normally expected that hourly paid staff and PGR students who teach and make a substantial contribution to a module are included in peer dialogue arrangements.
3. Each academic department shall articulate and agree the detail of its Peer Dialogue on Teaching scheme, ensuring that the scheme meets the policy expectations above and is informed by the guiding principles below. Details of the scheme shall be communicated effectively to both students and staff to ensure confidence in peer dialogue as the basis for enhancing quality, and shall be shared with the University's Education Policy and Quality team when established and when changed.

Guiding principles

Based on extensive research of academic literature on peer observation and consultation within the University, the following guiding principles have been formally agreed and should normally inform the nature and operationalisation of each academic department's scheme:

4. Peer Dialogue on Teaching schemes should be formative in nature and place emphasis on their potential for staff development in an environment where individuals learn from each other, and the wider teaching community, to enhance the student experience. There should be a clear separation between Peer Dialogue on Teaching as a formative, teacher development process and other, separate systems of quality assurance and performance management.
5. Peer Dialogue on Teaching schemes should be embedded within a culture that values teaching, and such schemes should sit alongside other measures designed to enhance teaching practice and provide support for members of staff who teach.
6. Peer Dialogue on Teaching reports should be kept confidential to participants, although a record that Peer Dialogue on Teaching has taken place should be required by the Department.
 - a. Departments could consider using a form to record Peer Dialogue on Teaching participation that allows participants to record an agreed statement of examples of good practice or requests for further support/development.

- b. Participants should be permitted to use Peer Dialogue on Teaching reports in applications for promotion, HEA fellowship and similar, and in nominations for the Warwick Award for Teaching Excellence (WATE), provided this is done with due respect for the other participants in the Peer Dialogue on Teaching process.
7. Examples of good practice emerging from Peer Dialogue on Teaching could usefully be disseminated, with the consent of participants, across the department within which the activity took place, and more widely.
 8. Participants should be encouraged to reflect upon the insights gained from Peer Dialogue on Teaching and to discuss developmental opportunities and further support for teaching, for example, in their annual Personal Development Review (PDR) meeting.

Relationship to policy on academic probation

The University's employment policy framework includes a requirement that some newly appointed academic staff complete a probation period as a condition of employment. Where a member of staff is required to complete a formal development programme which includes an observation of their teaching, this may count as fulfilling the requirements of this policy where such a provision is explicitly detailed in the hiring department's Peer Dialogue on Teaching scheme.

Implementation

In initially developing and approving this policy, the University recognises that its implementation will occur gradually over a period of time and that academic departments will be starting from different points. While some departments will progress at a faster pace, it is expected that all academic departments will, as a minimum, have agreed and published their scheme by January 2020, and that all staff who teach will have engaged at least once by the end of the academic year 2020/21.

The University will publish guidance and resources for departments and staff involved in designing, managing and participating in Peer Dialogue on Teaching schemes. This will provide further detail on how schemes can be operationalised in line with the guiding principles set out above.

The Academic Development Centre will develop support above and beyond guidance documents for those staff wishing to establish or enhance their approach to observing and constructively feeding back on their colleagues' teaching practice.

The University's quality assurance and enhancement processes will be used to monitor engagement with this policy and to support the continuous improvement of each department's scheme. In the first instance, this will include consideration of each department's progress towards the publication of its scheme during the autumn term Teaching Excellence Group meetings in 2019/20.

Policy ownership and maintenance

This policy is ultimately owned and sanctioned by Senate. Senate's Student Learning Experience and Engagement Committee (SLEEC) has responsibility for reviewing the policy at least every two years and for making recommendations to Senate on any revisions required. SLEEC has delegated authority on Senate's behalf to issue and revise guidance on the operationalisation and interpretation of this policy, which it may discharge through its Chair(s) or Secretariat at its discretion.

UNIVERSITY OF WARWICK

Proposal Form for New or Revised Modules (MA1 - version 7 - April 2014)

Approval information	
Approval Type	<input type="checkbox"/> New module <input checked="" type="checkbox"/> Revised module <input type="checkbox"/> Discontinue module
Date of Introduction/Change	29/09/2019
If new, does this module replace another? If so, enter module code and title:	N/A
If revised/discontinued, please outline the rationale for the changes:	Change to module availability to include new intercalated BSc degree codes. Addition to bibliography.
Confirmation that affected departments have been consulted:	N/A

Module Summary	
1. Module Code (if known)	LF103
2. Module Title	Quantitative Skills for Biology
3a. Lead department:	School of Life Sciences
3b. Teaching Split (if known):	SLS 100%
4. Name of module leader	Dr Daniel Franklin
5. Level	UG: <input checked="" type="checkbox"/> Level 4 (Certificate) <input type="checkbox"/> Level 5 (Intermediate) <input type="checkbox"/> Level 6 (Honours) PG: <input type="checkbox"/> Level 7 (Masters) <input type="checkbox"/> Level 8 (Doctoral) See Guidance Notes for relationship to years of study
6. Credit value(s) (CATS)	12
7. Principal Module Aims	The purpose of this module is to introduce students to a range of data analysis skills that they will need to apply throughout their undergraduate studies. By studying the module, students will gain an appreciation of the benefits of the application of statistical

Module Summary	
	approaches to support the understanding and interpretation of biological data, an awareness of how simple mathematical models can be used to explore biological systems, and the computational skills to enable them to test and interpret biological data.
8. Principal Learning Outcomes	<p>Students will:</p> <ul style="list-style-type: none"> • Understand and scrutinise statistical results in journal articles • Handle data • Learn to conduct basic statistical analyses • Understand how biological relationships can be described by equations <p>By the end of this module students should have a clear appreciation of the value of quantitative analysis and interpretation of biological data, and understand the basic principles of modelling biological populations. They should be aware of how to summarise and analyse the different types of data they will generate during laboratory classes throughout their degree, and have an understanding of how and when to apply a number of standard statistical tests. They should also understand how to use Microsoft Excel and the statistical software SPSS, to apply these different statistical tests and to manipulate and explore biological relationships.</p>
9. Timetabled Teaching Activities (summary)	28 hours contact time, arranged as 14 2-hour computer - workshops.
10. Departmental Web-link	https://moodle.warwick.ac.uk/course/view.php?id=28368
11. Other essential notes	
12. Assessment methods (summary)	2 x exercise based open book assignments.

For use by Strategic Planning and Analytics Office only - Do not fill in this section

Level	JACS3 Code	Teaching Split
		<i>If not provided in 3b above</i>

External Credit Level		Scheme	
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Module Context				
13. Please list all departments involved in the teaching of this module. If taught by more than one department, please indicate percentage split.				
School of Life Sciences				
14. Availability of module				
Degree Code	Title	Study Year	C/OC/A/B/C	Credits
C100	BSc Biological sciences	1	C	12
C101	BSc Biological Sciences with Intercalated Year	1	C	12
C1A1	MBio Biological Sciences	1	C	12
C1A5	MBio Biological Sciences with Industrial Placement	1	C	12
C700	BSc Biochemistry	1	C	12
C701	BSc Biochemistry with intercalated year	1	C	12
C1A2	MBio Biochemistry	1	C	12
C1A6	MBio Biochemistry with Industrial Placement	1	C	12
C1B9	BSc Biomedical Science	1	C	12
CB19	BSc Biomedical Science with Intercalated Year	1	C	12
C1A3	MBio Biomedical Science	1	C	12
C1A7	MBio Biomedical Science with Industrial Placement	1	C	12
15. Minimum number of registered students required for module to run				
N/A				
16. Pre- and Post-Requisite Modules				
None				

Module Content and Teaching	
17. Teaching and Learning Activities <i>(totals for module – please see guidance)</i>	
Module duration (weeks)	14
Lectures	
Seminars	
Tutorials	
Project Supervision	
Demonstration	
Practical Class/Workshops	28 hours
Supervised time in	

Module Content and Teaching		
studio/workshop		
Fieldwork		
External visits		
Work based learning		
Placement		
Year abroad		
Other activity <i>(please describe): e.g. distance-learning, intensive weekend teaching etc.</i>	Directed study/data analysis 92 hours	
18. Assessment Method (Standard)		
Type of assessment	Length	% weighting
Written Examinations	Hours	
Practical Examinations	Hours	
Assessed essays/coursework	2x assignments Two assignments each of 3 large exercises broken into smaller sub-questions.	100 (50% per assignment)
18a. Final chronological assessment <i>(please see guidance)</i>	Second assignment	

19. Methods for providing feedback on assessment.
Cohort level feedback provided on summative assessment along with individual marks
20. Outline Syllabus
<p>Summarising biological data - types of data, graphical summaries, summary statistics.</p> <p>Probabilities and common statistical distributions for biological data - simple ideas of probability; normal, Poisson and binomial distributions.</p> <p>Estimates and Confidence Intervals - summarising real data using sample statistics and distributional assumptions.</p> <p>Testing for differences - principles of hypothesis testing, t-tests and non-parametric alternatives for comparing population means.</p> <p>Tests for count data - chi-squared tests for association and goodness of fit with applications to distributions, genetics, medical studies.</p> <p>Familiarisation with statistical software.</p> <p>Normality in biological data and testing for normality. Non-parametric alternatives for testing for differences between two samples.</p> <p>Analysing Designed Experiments - analysis of variance and interpretation of results, with applications in plant, animal and medical science</p> <p>Simple Linear Relationships - simple ideas of linear regression models, plots, fitted lines and summary statistics</p>

Biological Data Analysis - applications of statistical summary approaches, hypothesis testing and regression modelling in a range of biological sciences, including epidemiology, medical science, ecology, and environmental science.
 Descriptive and predictive modelling of basic biological systems using medicine, disease and population dynamics applications.

21. Illustrative Bibliography

DYTHAM, C. 2011. *Choosing and using statistics: a biologist's guide*, John Wiley & Sons.

HAWKINS, DM. 2019. *Biomeasurement: a student's guide to biological statistics*. Oxford University Press

22. Learning outcomes

Successful completion of the module leads to the learning outcomes. The learning outcomes identify the knowledge, skills and attributes developed by the module.

Learning Outcomes should be presented in the format "By the end of the module students should be able to..." using the table at the end of the module approval form:

Resources

23. List any additional requirements and indicate the outcome of any discussions about these.

SPSS. The University has a site licence for SPSS Statistics.

Approval

24. Module leader's signature



Dr Daniel Franklin

25. Date of approval

19-4-18

26. Name of Approving Committee (include minute reference if applicable)

UTMC

27. Chair of Committee's signature



Philip Young (DUGS and UTMC Chair)

Approval**28. Head of Department(s)
signature**

Lorenzo Frigerio

Examination Information		
A1. Name of examiner (if different from module leader)		
A2. Indicate all available methods of assessment in the table below		
% Examined	% Assessed by other methods	Length of examination paper
0	100	
A3. Will this module be examined together with any other module (sectioned paper)? If so, please give details below.		
A4. How many papers will the module be examined by?	<input type="checkbox"/> 1 paper <input type="checkbox"/> 2 papers	
A5. When would you wish the exam take place (e.g. Jan, April, Summer)?		
A6. Is reading time required?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
A7. Please specify any special exam timetable arrangements.		
A8. Stationery requirements		
No. of Answer books?		
Graph paper?		
Calculator?		
Any other special stationery requirements (e.g. Data books, tables etc)?		
A9. Type of examination paper		
Seen?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Open Book?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Restricted?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
If restricted, please provide a list of permitted texts:		

LEARNING OUTCOMES		
(By the end of the module the student should be able to....)	Which teaching and learning methods enable students to achieve this learning outcome? (reference activities in section 17)	Which summative assessment method(s) will measure the achievement of this learning outcome? (reference activities in section 18)
Understand the importance and value of using statistical approaches to analyse and interpret biological data	Workshops Directed study/data analysis and independent learning	Assessed coursework
Identify different types of biological data and hypotheses and the statistical approaches needed to assess these hypotheses	Workshops Directed study/data analysis and independent learning	Assessed coursework
Understand how to use spreadsheets and statistical software to manipulate, summarise, analyse and present biological data	Workshops Directed study/data analysis and independent learning	Assessed coursework
Implement simple spreadsheet-based simulation models to explore the impacts of varying parameters within simple biological models	Workshops Directed study/data analysis and independent learning	Assessed coursework
Understand the principles of modelling biological populations and processes across a wide range of biological application areas	Workshops Directed study/data analysis and independent learning	Assessed coursework

UNIVERSITY OF WARWICK

Proposal Form for New or Revised Modules (MA1 - version 7 - April 2014)

Approval information	
Approval Type	<input type="checkbox"/> New module <input checked="" type="checkbox"/> Revised module <input type="checkbox"/> Discontinue module
Date of Introduction/Change	30/09/2019
If new, does this module replace another? If so, enter module code and title:	n/a
If revised/discontinued, please outline the rationale for the changes:	Module availability- new course with intercalated year codes and C1L8 Life Sciences and Global Sustainable Development. Discontinued Virology course removed. Minor rearrangements to syllabus.
Confirmation that affected departments have been consulted:	n/a

Module Summary	
1. Module Code (if known)	LF104
2. Module Title	Molecules, Cells and Organisms
3a. Lead department:	School of Life sciences
3b. Teaching Split (if known):	100% SLS
4. Name of module leader	Robert Spooner and Katrine Wallis
5. Level	UG: <input checked="" type="checkbox"/> Level 4 (Certificate) <input type="checkbox"/> Level 5 (Intermediate) <input type="checkbox"/> Level 6 (Honours) PG: <input type="checkbox"/> Level 7 (Masters) <input type="checkbox"/> Level 8 (Doctoral) See Guidance Notes for relationship to years of study
6. Credit value(s) (CATS)	24
7. Principal Module Aims	This module is the essential foundation module for most other modules taught in this Department, where the degrees are strongly oriented towards the molecular and cellular aspects of biology. It also provides a basic introduction to whole organism and developmental biology, within the context of evolution.

Module Summary	
8. Principal Learning Outcomes	<p>At the end of this module students should have acquired a thorough foundation of basic knowledge of the molecular biology underlying genetics, evolution and biochemistry, and how DNA information is connected through RNA and protein synthesis to the structure and function of cells and organisms.</p> <p>a) A basic understanding of the relationship between structure and function in lipids and proteins.</p> <p>b) Knowledge of the chemical formulae for the most important molecules.</p> <p>c) An understanding of the structure of DNA and molecular details of the mechanism of its replication</p> <p>d) An understanding of the flow of information from DNA to RNA to protein, and molecular details of the processes of transcription and translation.</p> <p>e) A basic understanding of the application of key techniques in molecular and cellular biology.</p> <p>f) Recognition of some of the key processes in eukaryotic cell biology: division, growth, death, protein transport, the secretory system and cell-cell communication.</p> <p>g) Understanding the basis of multicellularity and tissue homeostasis.</p> <p>h) Knowledge of the genetics of bacteria, including the mechanisms of genetic exchange, mutation, the concepts of recombination and complementation and regulation of gene expression as exemplified by the lactose operon of <i>Escherichia coli</i>.</p> <p>i) A coherent understanding of the classical genetics of eukaryotes, including linkage, inheritance of quantitative characters, cytology and chromosome mechanics.</p>
9. Timetabled Teaching Activities (summary)	53 lectures
10. Departmental Web-link	Via Moodle: updated annually https://moodle.warwick.ac.uk/course/view.php?id=28369
11. Other essential notes	n/a
12. Assessment methods (summary)	100% assessed: 6 in-module tests (one formative, 5 summative)

For use by Strategic Planning and Analytics Office only - Do not fill in this section

Level	JACS3 Code	Teaching Split
		<i>If not provided in 3b above</i>

External Credit Level		Scheme	
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Module Context				
13. Please list all departments involved in the teaching of this module. If taught by more than one department, please indicate percentage split.				
100% SLS				
14. Availability of module				
Degree Code	Title	Study Year	C/OC/A/B/C	Credits
C100	BSc Biological sciences	1	C	24
C101	BSc Biological Sciences with Intercalated Year	1	C	24
C1A1	MBio Biological Sciences	1	C	24
C1A5	MBio Biological Sciences with Industrial Placement	1	C	24
C1B9	BSc Biomedical Science	1	C	24
CB19	BSc Biomedical Science with Intercalated Year	1	C	24
C1A3	MBio Biomedical Science	1	C	24
C1A7	MBio Biomedical Science with Industrial Placement	1	C	24
C700	BSc Biochemistry	1	C	24
C701	BSc Biochemistry with intercalated year	1	C	24
C1A2	MBio Biochemistry	1	C	24
C1A6	MBio Biochemistry with Industrial Placement	1	C	24
C1L8	Life Sciences and Global Sustainable Development	1	C	24
15. Minimum number of registered students required for module to run				
N/A - core				
16. Pre- and Post-Requisite Modules				
None				

Module Content and Teaching	
17. Teaching and Learning Activities (<i>totals for module – please see guidance</i>)	
Module duration (weeks)	14 weeks
Lectures	53
Seminars	
Tutorials	
Project Supervision	
Demonstration	

Module Content and Teaching		
Practical Class/Workshops		
Supervised time in studio/workshop		
Fieldwork		
External visits		
Work based learning		
Placement		
Year abroad		
Other activity <i>(please describe): e.g. distance-learning, intensive weekend teaching etc.</i>	Directed Reading	
18. Assessment Method (Standard)		
Type of assessment	Length	% weighting
Written Examinations		
Practical Examinations		
Assessed essays/coursework	6 Assessed in-module tests – a combination of multiple choice and short-answer questions, to be delivered via Moodle-based quizzes	100%
18a. Final chronological assessment <i>(please see guidance)</i>	In module test	

19. Methods for providing feedback on assessment.
Instant feedback on in-module tests will be provided by Moodle - scores will be given immediately the test has ended.
20. Outline Syllabus
<p>Lectures 1-9. Proteins and Membranes Lectures 10-15. Genes in action Lectures 16-21. Genes in action - Transcription and translation Lectures 22-25. Proteins in context - The cell cycle Lectures 26-29. Proteins in context - Protein trafficking Lectures 30-33. Proteins in context - From cells to organisms Lectures 34-43. Focus on Genetics - Genes in action in bacteria Lectures 44-53. Genetics of Eukaryotes</p>
21. Illustrative Bibliography

Berg JM, Tymoczko JL, Gatto GJ Jr and Stryer L. Biochemistry, 8th edition (WH Freeman 2015)

Lodish H, Berk A, Kaiser AC, Krieger M, , Bretscher A, Ploegh H, Amon A, and Scott MP. Molecular Cell Biology, 7th edition (WH Freeman 2012)

Griffiths A J F, Wesler S R, Doebley J and Carroll S B. An Introduction to Genetic Analysis, 10th edn. (W H Freeman, 2011).

Alberts B, Johnson A, Lewis J, Morgan D, Raff M, Roberts K and Walter P. Molecular Biology of the Cell, 6th edition (Garland Science 2014)

22. Learning outcomes

By the end of the module students will have gained a solid foundation of molecular, cellular and organismal biology and genetics, which will provide a springboard for more advanced modules in years 2 and 3. See Table at the end of the module approval form.

Resources

23. List any additional requirements and indicate the outcome of any discussions about these.

Approval

24. Module leader's signature



14/08/2018

25. Date of approval

26. Name of Approving Committee (include minute reference if applicable)

Undergraduate Teaching Management Committee

27. Chair of Committee's signature

P Young

28. Head of Department(s) signature

L Frigerio

Examination Information		
A1. Name of examiner (if different from module leader)		
A2. Indicate all available methods of assessment in the table below		
% Examined	% Assessed by other methods	Length of examination paper
	100	
A3. Will this module be examined together with any other module (sectioned paper)? If so, please give details below.		
A4. How many papers will the module be examined by?	<input type="checkbox"/> 1 paper	<input type="checkbox"/> 2 papers
A5. When would you wish the exam take place (e.g. Jan, April, Summer)?		
A6. Is reading time required?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
A7. Please specify any special exam timetable arrangements.		
A8. Stationery requirements		
No. of Answer books?		
Graph paper?		
Calculator?		
Any other special stationery requirements (e.g. Data books, tables etc)?		
A9. Type of examination paper		
Seen?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Open Book?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Restricted?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
If restricted, please provide a list of permitted texts:		

LEARNING OUTCOMES		
(By the end of the module the student should be able to....)	Which teaching and learning methods enable students to achieve this learning outcome? (reference activities in section 15)	Which summative assessment method(s) will measure the achievement of this learning outcome? (reference activities in section 16)
Understand the importance of proteins and how they are put together.	Lectures Tutorials (within Year 1 Assessed work program) Directed reading and independent learning	Examination Multiple choice/short answer tests
Understand the structure and roles of biological membranes.	Lectures Tutorials (within Year 1 Assessed work program) Directed reading and independent learning	Examination Multiple choice/short answer tests
Understand the basics of molecular biology including the roles and synthesis of DNA, RNA and proteins.	Lectures Tutorials (within Year 1 Assessed work program) Directed reading and independent learning	Examination Multiple choice/short answer tests
Understand the prokaryotic and eukaryotic genetics and the basis for inheritance and evolution.	Lectures Tutorials (within Year 1 Assessed work program) Directed reading and independent learning	Examination Multiple choice/short answer tests
Understand the concept of evolution and the theories for the origins of cellular life.	Lectures Tutorials (within Year 1 Assessed work program) Directed reading and independent learning	Examination Multiple choice/short answer tests
Understand the organisation and architecture of cells	Lectures Tutorials (within Year 1 Assessed work program) Directed reading and independent learning	Examination Multiple choice/short answer tests
Understand tissue organisation and the mechanisms by which tissue homeostasis is achieved.	Lectures Tutorials (within Year 1 Assessed work program) Directed reading and independent learning	Examination Multiple choice/short answer tests

LEARNING OUTCOMES		
(By the end of the module the student should be able to....)	Which teaching and learning methods enable students to achieve this learning outcome? (reference activities in section 15)	Which summative assessment method(s) will measure the achievement of this learning outcome? (reference activities in section 16)
Understand at a basic level the mechanisms by which communication occurs between parts of a multicellular organism.	Lectures Tutorials (within Year 1 Assessed work program) Directed reading and independent learning	Examination Multiple choice/short answer tests
Understand the cell biology aspects of protein synthesis and trafficking.	Lectures Tutorials (within Year 1 Assessed work program) Directed reading and independent learning	Examination Multiple choice/short answer tests

UNIVERSITY OF WARWICK

Proposal Form for New or Revised Modules (MA1 - version 7 - April 2014)

Approval information	
Approval Type	<input type="checkbox"/> New module <input checked="" type="checkbox"/> Revised module <input type="checkbox"/> Discontinue module
Date of Introduction/Change	01/10/2019
If new, does this module replace another? If so, enter module code and title:	N/A
If revised/discontinued, please outline the rationale for the changes:	Update to module availability to include new intercalated year course codes and remove discontinued Virology course. Corrected credit value.
Confirmation that affected departments have been consulted:	na

Module Summary	
1. Module Code (if known)	LF206
2. Module Title	Molecular Cell Biology
3a. Lead department:	School of Life Sciences
3b. Teaching Split (if known):	50% Cell biology, 50% Molecular biology
4. Name of module leader	Patrick Schäfer
5. Level	UG: <input type="checkbox"/> Level 4 (Certificate) <input checked="" type="checkbox"/> Level 5 (Intermediate) <input type="checkbox"/> Level 6 (Honours) PG: <input type="checkbox"/> Level 7 (Masters) <input type="checkbox"/> Level 8 (Doctoral) See Guidance Notes for relationship to years of study
6. Credit value(s) (CATS)	18
7. Principal Module Aims	The module aims to achieve a more in depth understanding of the basics of molecular biology. Students will understand the organisation and complexity of the sequence constitution of chromosomes in both Pro- and Eukaryotes. They will be able to understand how genes are controlled by building on the basics learnt in LF104 Molecules, Cells and Organisms on the nature of transcriptional control. They will be able to place this

Module Summary	
	<p>understanding into the context of chromatin remodelling, and will be introduced into the molecular biology of epigenetics. Students will gain an understanding of the mechanism of other layers of post-transcriptional/translational/post-translational control. They will be introduced into modern molecular methods and how they are used to study modern biological problems.</p> <p>Understanding the biology of eukaryotic organisms requires knowledge of their organisation and operation at the cellular level. An appreciation of the means by which cells perform their many functions is a prerequisite for detailed study of the underlying biochemistry. This module does not cover the entire range of subjects that could be included under the heading of Cell Biology but concentrates on key areas to illustrate principles and to allow students access to the wider range of information available in modern texts.</p>
8. Principal Learning Outcomes	<ul style="list-style-type: none"> • To achieve a thorough understanding the structure and sequence content of both Prokaryotes and Eukaryotes. • To understand the control of gene expression at multiple layers - from chromosomal context, to expression, to modifications of the product. • To understand the most recent methodology in the field and the context in which they are used. <p>In the associated tutorials, which is largely based around original research papers, the students should gain an appreciation of how scientific discoveries are made, and the general principles of scientific research. It will also allow students to follow in detail an investigation of the activity of a particular gene product using recombinant DNA technology.</p> <p>Students should gain a detailed understanding of the molecular biology which underlies the fundamental cellular processes of:</p> <ul style="list-style-type: none"> • The cytoskeleton in cellular structure, function and motility • Mechanisms controlling cell proliferation and genome stability • Protein processing in secretory pathway organelles • Cell death programs in eukaryotic cells <p>Students are expected to gain a clear appreciation of the principles that underpin current understanding of these processes and also of the experimental approaches by which these have been elucidated.</p>
9. Timetabled Teaching Activities (summary)	32 hrs
10. Departmental Web-link	https://moodle.warwick.ac.uk/course/view.php?id=28375

Module Summary	
11. Other essential notes	
12. Assessment methods (summary)	100% 1.5 hour exam

For use by Strategic Planning and Analytics Office only - Do not fill in this section

Level	JACS3 Code	Teaching Split
		<i>If not provided in 3b above</i>

External Credit Level		Scheme	

Module Context				
13. Please list all departments involved in the teaching of this module. If taught by more than one department, please indicate percentage split.				
Life Sciences (75%) and WMS (25%)				
14. Availability of module				
Degree Code	Title	Study Year	C/OC/A/B/C	Credits
C100	BSc Biological Sciences	2	C	18
C101	BSc Biological Sciences with Intercalated Year	2	C	18
C1A1	MBio Biological Sciences	2	C	18
C1A5	MBio Biological Sciences with Industrial Placement	2	C	18
C700	BSc Biochemistry	2	C	18
C701	BSc Biochemistry with intercalated year	2	C	18
C1A2	MBio Biochemistry	2	C	18
C1A6	MBio Biochemistry with Industrial Placement	2	C	18
C1B9	BSc Biomedical Science	2	C	18
CB19	BSc Biomedical Science with Intercalated Year	2	C	18
C1A3	MBio Biomedical Science	2	C	18
C1A7	MBio Biomedical Science with Industrial Placement	2	C	18
15. Minimum number of registered students required for module to run				
N/A				
16. Pre- and Post-Requisite Modules				
None				

Module Content and Teaching	
17. Teaching and Learning Activities <i>(totals for module – please see guidance)</i>	
Module duration (weeks)	10
Lectures	30
Seminars	
Tutorials	
Project Supervision	
Demonstration	
Practical Class/Workshops	2

Module Content and Teaching		
Supervised time in studio/workshop		
Fieldwork		
External visits		
Work based learning		
Placement		
Year abroad		
Other activity <i>(please describe): e.g. distance-learning, intensive weekend teaching etc.</i>	118 hrs self-study and directed reading	
18. Assessment Method (Standard)		
Type of assessment	Length	% weighting
Written Examinations	1.5 Hours	100%
Practical Examinations	Hours	
Assessed essays/coursework	Words	
18a. Final chronological assessment <i>(please see guidance)</i>	examination	

19. Methods for providing feedback on assessment.	
Pastoral meetings with personal tutors	
20. Outline Syllabus	
Prokaryote Genomes Eukaryote Genomes Transcription and Post-transcriptional Gene Control Advanced molecular techniques, microarrays, deep sequencing, directed reverse genetic techniques. Translation and translational control. Post-translational modifications and events Evolution of the eukaryotic cell Microtubule cytoskeleton Actin filaments Actin motors Cell cycle Deregulation of the cell cycle in cancer Mitosis Cell death (necrosis and apoptosis)	
21. Illustrative Bibliography	
Lodish Molecular Cell Biology 6 th edition 2007 Alberts Molecular Biology of the Cell 5 th edition 2007 Students are directed to the current literature for an up-to-date appreciation of developments in this area.	
22. Learning outcomes	
<i>Successful completion of the module leads to the learning outcomes. The learning outcomes identify the knowledge, skills and attributes developed by the module.</i> <i>Learning Outcomes should be presented in the format "By the end of the module students should be able to..." using the table at the end of the module approval form:</i>	
Resources	
23. List any additional requirements and indicate the outcome of any discussions about these.	
NONE	
Approval	
24. Module leader's signature	Patrick Schäfer

Approval	
25. Date of approval	17-9-19
26. Name of Approving Committee (include minute reference if applicable)	SLS Undergraduate Teaching Management Committee
27. Chair of Committee's signature	P Young
28. Head of Department(s) Signature	Professor Lorenzo Frigerio

Examination Information		
A1. Name of examiner (if different from module leader)		
A2. Indicate all available methods of assessment in the table below		
% Examined	% Assessed by other methods	Length of examination paper
100		1.5 hr
A3. Will this module be examined together with any other module (sectioned paper)? If so, please give details below.		
A4. How many papers will the module be examined by?	<input checked="" type="checkbox"/> 1 paper <input type="checkbox"/> 2 papers	
A5. When would you wish the exam take place (e.g. Jan, April, Summer)?	Summer	
A6. Is reading time required?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
A7. Please specify any special exam timetable arrangements.		
A8. Stationery requirements		
No. of Answer books?	NONE	
Graph paper?	NO	
Calculator?	allowed	
Any other special stationery requirements (e.g. Data books, tables etc)?		
A9. Type of examination paper		
Seen?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Open Book?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Restricted?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
If restricted, please provide a list of permitted texts:		

LEARNING OUTCOMES		
(By the end of the module the student should be able to....)	Which teaching and learning methods enable students to achieve this learning outcome? (reference activities in section 15)	Which summative assessment method(s) will measure the achievement of this learning outcome? (reference activities in section 16)
Understand the structure and sequence content of both Prokaryotes and Eukaryotes	Lectures Workshop Independent study	Examination
Understand the control of gene expression at multiple layers - from chromosomal context, to expression, to modifications of the product	Lectures Workshop Independent study	Examination
Understand the most recent methodology in the field and the context in which they are used	Lectures Workshop Independent study	Examination
Understand the structure of the cytoskeleton.	Lectures Workshop Independent study	Examination
Understand the cell cycle and its regulation	Lectures Workshop Independent study	Examination

LEARNING OUTCOMES		
(By the end of the module the student should be able to....)	Which teaching and learning methods enable students to achieve this learning outcome? (reference activities in section 15)	Which summative assessment method(s) will measure the achievement of this learning outcome? (reference activities in section 16)
Understand the mechanisms of cell death and their importance in development and disease	Lectures Workshop Independent study	Examination

UNIVERSITY OF WARWICK

Proposal Form for New or Revised Modules (MA1 - version 7 - April 2014)

Approval information	
Approval Type	<input type="checkbox"/> New module <input checked="" type="checkbox"/> Revised module <input type="checkbox"/> Discontinue module
Date of Introduction/Change	08/10/2018
If new, does this module replace another? If so, enter module code and title:	NA
If revised/discontinued, please outline the rationale for the changes:	<p>This is simply an update of the MA1 V6 format for LF211 the umbrella structure of year 2 modules BS211 and BS262 delivered as a core module for Biomed Sci students as LF211. It continues to consolidate the teaching of BS211 and BS262 for C1B9 students. This previously included C526 MediMicroVirol however this pathway has been discontinued. There is the opportunity to draw parallels between immune surveillance and epidemiological surveillance to reinforce basic and expand upon basic(e.g. the cause and consequence of antibody immunity and evasion of immune response in the progression of infectious disease</p>
Confirmation that affected departments have been consulted:	

Module Summary	
1. Module Code (if known)	LF211
2. Module Title	Immunology and Epidemiology
3a. Lead department:	School of Life Sciences
3b. Teaching Split (if known):	Immunology (BS211) 100% Dr Leanne Williams 15 lectures; Epidemiology (BS262) 25% Professor Matt Keeling, 37.5% Dr Erin Gorsich, 37.5% Dr Daniel Franklin
4. Name of module leader	Dr Leanne Williams (BS211) Dr Daniel Franklin (BS262)
5. Level	UG: <input type="checkbox"/> Level 4 (Certificate) <input checked="" type="checkbox"/> Level 5 (Intermediate) <input type="checkbox"/> Level 6 (Honours) PG: <input type="checkbox"/> Level 7 (Masters) <input type="checkbox"/> Level 8 (Doctoral) See Guidance Notes for relationship to years of study

Module Summary	
6. Credit value(s) (CATS)	18 CATS
7. Principal Module Aims	The aim of this module is to introduce students to two of the fundamental processes that underpin modern biomedical science: immunology and epidemiology. Together with companion modules dealing with specific pathogens, the module considers many disease processes and their mitigation. Immunology deals with the basic processes of immunity to infection, but also covers aspect of hypersensitivity and auto-immune disease. Epidemiology explains the population biology of pathogens (of which immunology is an important aspect), and applies this to public health decision-making to explain current policy in regards to immunisation, sexually transmitted infections and alcohol consumption.
8. Principal Learning Outcomes	By the end of the module the students should have a good understanding of the basics of the innate and adaptive immune response with a focus on the adaptive immune response and the generation of diversity. Students will be able to apply these fundamentals to the progression of immune-related disease. The students should understand how evidence is used to assign causes to different diseases, and the underlying theory for the design of public health interventions.
9. Timetabled Teaching Activities (summary)	31 hrs (27 lectures, 2 x 2 hour workshops, plus 2 revision sessions)
10. Departmental Web-link	https://moodle.warwick.ac.uk/course/view.php?id=28379
11. Other essential notes	Comprises Immunology (BS211) and Epidemiology & Public Health
12. Assessment methods (summary)	100% examination 1.5 hr exam paper of short and long answer questions 50:50 split in terms of subject content.

For use by Strategic Planning and Analytics Office only - Do not fill in this section

Level	JACS3 Code	Teaching Split
		<i>If not provided in 3b above</i>

External Credit Level	Scheme

Module Context				
13. Please list all departments involved in the teaching of this module. If taught by more than one department, please indicate percentage split.				
Life Sciences				
14. Availability of module				
Degree Code	Title	Study Year	C/OC/A/B/C	Credits
C1B9	BSc Biomedical Science	2	Core	18
CB19	BSc Biomedical Science with Intercalated Year	2	Core	18
C1A3	MBio Biomedical Science	2	Core	18
C1A7	MBio Biomedical Science with Industrial Placement	2	Core	18
15. Minimum number of registered students required for module to run				
N/A				
16. Pre- and Post-Requisite Modules				
BS127 Agents of infectious disease is a core module in Year 1 and must be passed in order to progress to year 2, it also lays the foundations for BS211/LF211, which in turn provides fundamentals for the progression to Year 3 BS317 Advanced Immunology				

Module Content and Teaching	
17. Teaching and Learning Activities (<i>totals for module – please see guidance</i>)	
Module duration (weeks)	
Lectures	27
Seminars	
Tutorials	
Project Supervision	
Demonstration	
Practical Class/Workshops	2 x 2 hour computer workshops 2 revision sessions
Supervised time in studio/workshop	
Fieldwork	
External visits	

Module Content and Teaching		
Work based learning		
Placement		
Year abroad		
Other activity <i>(please describe): e.g. distance-learning, intensive weekend teaching etc.</i>	118 hrs self-study and directed reading is expected	
18. Assessment Method (Standard)		
Type of assessment	Length	% weighting
Written Examinations	Hours	1.5 hours
Practical Examinations	Hours	None
Assessed essays/coursework	Words	None
18a. Final chronological assessment <i>(please see guidance)</i>	Examination	

19. Methods for providing feedback on assessment.
<p>Pastoral meetings with tutors.</p> <p>Final examination feedback is given to returning students as generalised feedback on what constituted a good essay; common mistakes/misconceptions and good practice are identified and shared.</p>
20. Outline Syllabus
<p>The immunology is presented as an overview of the immune system with a focus on T cell immunity, including:</p> <ul style="list-style-type: none"> • Recognition of antigen by the adaptive immune system. • The TCR and MHC • T-cell mediated immunity • The humoral immune response • Failure of immunity: evasion and subversion and immunodeficiency disease. • Mucosal immunity • Inappropriate activation: allergy and autoimmune disease • Case studies of immune system dysregulation and disease, including rheumatoid arthritis, multiple sclerosis, and Crohn's disease <p>Concepts and examples of epidemiology and public health will span human and animal diseases, infectious and non-infectious diseases (although with emphasis on infectious diseases). There are three equally weighted areas:</p> <ul style="list-style-type: none"> • Assessing the Evidence: Introduction to the concepts of measurement and causality.

- Predicting the Dynamics: Development of the concepts of non-linearity in infectious disease dynamics.
- Protecting the Population Health: Introduction to the concepts of public health.

21. Illustrative Bibliography

Murphy, K. M., Travers, P. and Walport, M. Janeway's Immunobiology, 8th edn. (Garland Science, 2011).

Coggon, D., Rose, G. and Barker, D. J. P. (eds). Epidemiology for the Uninitiated, 5th Ed. (BMJ Publishing Group, 2003). ISBN 0-7279-1604-1. Contains 80 pages.

Keeling, M. J. and Rohani, P. Modeling Infectious Diseases in Humans and Animals (Princeton University Press, 2008). ISBN13: 978-0-691-11617-4

22. Learning outcomes

Successful completion of the module leads to the learning outcomes. The learning outcomes identify the knowledge, skills and attributes developed by the module.

Learning Outcomes should be presented in the format "By the end of the module students should be able to..." using the table at the end of the module approval form:

See section 8

Resources

23. List any additional requirements and indicate the outcome of any discussions about these.

None

Approval

24. Module leader's signature

Dr Leanne Williams : Dr Daniel Franklin



Approval

25. Date of approval	17-9-19
26. Name of Approving Committee (include minute reference if applicable)	SLS undergraduate Teaching management committee
27. Chair of Committee's signature	Dr Philip Young
28. Head of Department(s) signature	Professor Lorenzo Frigerio

Examination Information		
A1. Name of examiner (if different from module leader)		
A2. Indicate all available methods of assessment in the table below		
% Examined	% Assessed by other methods	Length of examination paper
100		1.5
A3. Will this module be examined together with any other module (sectioned paper)? If so, please give details below.		
A4. How many papers will the module be examined by?	<input checked="" type="checkbox"/> 1 paper <input type="checkbox"/> 2 papers	
A5. When would you wish the exam take place (e.g. Jan, April, Summer)?	Summer	
A6. Is reading time required?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
A7. Please specify any special exam timetable arrangements.		
A8. Stationery requirements		
No. of Answer books?	None	
Graph paper?	None	
Calculator?	Allowed with receipt	
Any other special stationery requirements (e.g. Data books, tables etc)?	All relevant information will be provided within the examination paper.	
A9. Type of examination paper		
Seen?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Open Book?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Restricted?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
If restricted, please provide a list of permitted texts:		

LEARNING OUTCOMES		
(By the end of the module the student should be able to....)	Which teaching and learning methods enable students to achieve this learning outcome? (reference activities in section 17)	Which summative assessment method(s) will measure the achievement of this learning outcome? (reference activities in section 18)
Explain the main molecular and cellular players in the innate and adaptive immune system and their interaction.	Lectures Independent Study	Examination
Explain the role of the immune system in defining self from non-self and how T cells and B cells acquire this discrimination.	Lectures Independent Study	Examination
Understand how important the balance of the immune system is what happens when the normal <i>status quo</i> is disrupted in disease examples	Lectures Independent Study	Examination
Interpret and weigh the evidence for and against disease causality, diagnosis and screening.	Lectures Independent Study	Examination
Emphasise the individual / population differences in disease, diagnosis and pathogen ecology, and explain that most disease comes from small, common risks.	Lectures Independent Study	Examination

LEARNING OUTCOMES		
(By the end of the module the student should be able to....)	Which teaching and learning methods enable students to achieve this learning outcome? (reference activities in section 17)	Which summative assessment method(s) will measure the achievement of this learning outcome? (reference activities in section 18)
Explain the ideas of non-linear dynamics inherent in transmission dynamics of infectious disease, and the concept of transmission routes of infectious disease.	Lectures Independent Study	Examination
Show, by example, how public health policy in the UK is based on our current understanding of causality and dynamics.	Lectures Independent Study	Examination
Integrate all aspects of the module and have a coherent understanding of the complex interactions between the disease causing agent, the host immunological response and population biology and public health.	Lectures Independent Study	Examination

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Proposal Form for New or Revised Modules (MA1 - version 7 - April 2014)

Approval information	
Approval Type	<input type="checkbox"/> New module <input checked="" type="checkbox"/> Revised module <input type="checkbox"/> Discontinue module
Date of Introduction/Change	October 2018
If new, does this module replace another? If so, enter module code and title:	
If revised/discontinued, please outline the rationale for the changes:	Modification in the curriculum to include haematoncology
Confirmation that affected departments have been consulted:	N/A

Module Summary	
1. Module Code (if known)	BS347
2. Module Title	Oncology
3a. Lead department:	School of Life Sciences
3b. Teaching Split (if known):	
4. Name of module leader	Dr Ioannis Nezis
5. Level	UG: <input type="checkbox"/> Level 4 (Certificate) <input type="checkbox"/> Level 5 (Intermediate) <input checked="" type="checkbox"/> Level 6 (Honours) PG: <input type="checkbox"/> Level 7 (Masters) <input type="checkbox"/> Level 8 (Doctoral) See Guidance Notes for relationship to years of study
6. Credit value(s) (CATS)	12
7. Principal Module Aims	This module aims to enable science students to bring their knowledge of cell and molecular biology to an understanding of the mechanisms through which cancer develops. However, we go further: the module aims to integrate biomedical and clinical aspects of oncology so that the student develops a satisfying all-round understanding of the complex biological and social phenomenon which is cancer5. To develop knowledge and

Module Summary	
	understanding of data handling and statistical tests needed in Immunological research
8. Principal Learning Outcomes	LO1 Know what are the causes of cancer and how they are detected LO2 Be able to describe the biological process by which cancer develops – carcinogenesis LO3 Have a good understanding of the main molecular mechanisms underlying carcinogenesis LO4 Know the main cellular mechanisms which limit the development of cancers LO5 Know the main immunotherapeutic targets and their mechanisms LO6 Know the main haematological cancers, their aetiology, causes and treatment strategies
9. Timetabled Teaching Activities (summary)	20 x 1 hour lectures
10. Departmental Web-link	https://moodle.warwick.ac.uk/course/view.php?id=20959
11. Other essential notes	
12. Assessment methods (summary)	100% Examined

For use by Strategic Planning and Analytics Office only - Do not fill in this section

Level	JACS3 Code	Teaching Split
		<i>If not provided in 3b above</i>

External Credit Level	Scheme

Module Context				
13. Please list all departments involved in the teaching of this module. If taught by more than one department, please indicate percentage split.				
SLS				
14. Availability of module				
Degree Code	Title	Study Year	C/OC/ A/B/C	Credits
C1B9	Biomedical Science	3	0	12
CB19	Biomedical Sciences with ICY	4	0	12
C1A3	MBio BMS	3	0	12
C1A7	MBio BMS in Industry	3	0	12
C100	Biological Sciences	3	0	12
C101	Biological Sciences with ICY	4	0	12
C1A1	MBio Biological Sciences	3	0	12
C1A5	MBio BS in Industry	3	0	12
C700	Biochemistry	3	0	12
C701	Biochemistry with ICY	4	0	12
C1A2	MBio Biochemistry	3	0	12
C1A6	MBio BC in industry	3	0	12
15. Minimum number of registered students required for module to run				
16. Pre- and Post-Requisite Modules				

Module Content and Teaching	
17. Teaching and Learning Activities <i>(totals for module – please see guidance)</i>	
Module duration (weeks)	10
Lectures	20 x 1 hour
Seminars	
Tutorials	
Project Supervision	
Demonstration	
Practical Class/Workshops	
Supervised time in studio/workshop	
Fieldwork	
External visits	

Module Content and Teaching		
Work based learning		
Placement		
Year abroad		
Other activity <i>(please describe): e.g. distance-learning, intensive weekend teaching etc.</i>	100 hrs of self-study and directed reading	
18. Assessment Method (Standard)		
Type of assessment	Length	% weighting
Written Examinations	1.5 Hours	100
Practical Examinations		
Assessed essays/coursework		
18a. Final chronological assessment <i>(please see guidance)</i>	examination	

19. Methods for providing feedback on assessment.
Pastoral meetings with personal tutor
20. Outline Syllabus
<p>Lecture 1: Introduction to the cancer</p> <p>Lecture 2: aetiology and causes of cancer</p> <p>Lecture 3: cancer development</p> <p>Lecture 4: cancer stem cells and heterogeneity</p> <p>Lecture 5: growth factor signalling and the MAPK pathway</p> <p>Lecture 6: apoptosis and cell death</p> <p>Lecture 7: autophagy in malignant transformation and cancer progression</p> <p>Lecture 8: environmental factors that trigger DNA mutations</p> <p>Lecture 9: DNA damage</p> <p>Lecture 10: DNA repair and p53</p> <p>Lecture 11: circadian clocks and cancer</p> <p>Lecture 12: circadian rhythm and chemotherapy</p> <p>Lecture 13: common oncogenic viral infections</p> <p>Lecture 14: oncogenic viral mechanisms and therapeutic targets</p> <p>Lecture 15: angiogenesis and metastasis</p> <p>Lecture 16: immunotherapy and immune surveillance.</p> <p>Lecture 17: biomarkers and cancer monitoring / diagnosis</p> <p>Lecture 18: Haematology 1: lymphoma</p> <p>Lecture 19: Haematology 2: leukemia</p> <p>Lecture 20: Haematology 3: multiple myeloma</p>

21. Illustrative Bibliography
Hall, 2006. 3rd edn. The Cancer Handbook on line at the library's electronic books page. This is a multi-authored encyclopaedia which should be consulted for specific topics.
22. Learning outcomes <i>Successful completion of the module leads to the learning outcomes. The learning outcomes identify the knowledge, skills and attributes developed by the module.</i> <i>Learning Outcomes should be presented in the format "By the end of the module students should be able to..." using the table at the end of the module approval form:</i>

Resources
23. List any additional requirements and indicate the outcome of any discussions about these.
None

Approval	
24. Module leader's signature	IN
25. Date of approval	17-9-19
26. Name of Approving Committee (include minute reference if applicable)	UTMC
27. Chair of Committee's signature	Philip Young
28. Head of Department(s)	Lorenzo Frigerio

Approval	
signature	

Examination Information		
A1. Name of examiner (if different from module leader)	N/A	
A2. Indicate all available methods of assessment in the table below		
% Examined	% Assessed by other methods	Length of examination paper
100	0	1.5 hrs
A3. Will this module be examined together with any other module (sectioned paper)? If so, please give details below.		
A4. How many papers will the module be examined by?	<input checked="" type="checkbox"/> 1 paper <input type="checkbox"/> 2 papers	
A5. When would you wish the exam take place (e.g. Jan, April, Summer)?	April	
A6. Is reading time required?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
A7. Please specify any special exam timetable arrangements.		
A8. Stationery requirements		
No. of Answer books?	2 (1 per question)	
Graph paper?	No	
Calculator?	No	
Any other special stationery requirements (e.g. Data books, tables etc)?	No	
A9. Type of examination paper		
Seen?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Open Book?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Restricted?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
If restricted, please provide a list of permitted texts:		

LEARNING OUTCOMES		
(By the end of the module the student should be able to....)	Which teaching and learning methods enable students to achieve this learning outcome? (reference activities in section 15)	Which summative assessment method(s) will measure the achievement of this learning outcome? (reference activities in section 16)
LO1 Know what are the causes of cancer and how they are detected	Lectures Recommended reading Self - study	Examinations
LO2 Be able to describe the biological process by which cancer develops – carcinogenesis	Lectures Recommended reading Self - study	Examinations
LO3 Have a good understanding of the main molecular mechanisms underlying carcinogenesis	Lectures Recommended reading Self - study	Examinations
LO4 Know the main cellular mechanisms which limit the development of cancers	Lectures Recommended reading Self - study	Examinations
LO5 Know the main immunotherapeutic targets and their mechanisms	Lectures Recommended reading Self - study	Examinations
LO6 Know the main haematological cancers, their aetiology, causes and treatment strategies	Lectures Recommended reading Self - study	Examinations

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Proposal Form for New or Revised Modules (MA1 - version 7 - April 2014)

Approval information	
Approval Type	<input type="checkbox"/> New module <input checked="" type="checkbox"/> Revised module <input type="checkbox"/> Discontinue module
Date of Introduction/Change	October 2018
If new, does this module replace another? If so, enter module code and title:	N/A
If revised/discontinued, please outline the rationale for the changes:	To introduce a small amount of in-module assessment, associated with existing workshop group-learning activities. To update the module information on current form.
Confirmation that affected departments have been consulted:	No other Departments affected

Module Summary	
1. Module Code (if known)	LF303
2. Module Title	Medical Virology
3a. Lead department:	School of Life Sciences
3b. Teaching Split (if known):	SLS 100%
4. Name of module leader	Keith Leppard
5. Level	UG: <input type="checkbox"/> Level 4 (Certificate) <input type="checkbox"/> Level 5 (Intermediate) <input checked="" type="checkbox"/> Level 6 (Honours) PG: <input type="checkbox"/> Level 7 (Masters) <input type="checkbox"/> Level 8 (Doctoral) See Guidance Notes for relationship to years of study
6. Credit value(s) (CATS)	12
7. Principal Module Aims	The module covers important examples of human viral pathogens and some of the underlying principles that underpin our understanding of these pathogens. Its aim is to introduce students to the current and potential future pandemic viral pathogens and to provide insight into the principles that govern the emergence, evolution, transmission and control of these viruses.

Module Summary	
8. Principal Learning Outcomes	An understanding of the major global viral health threats, and how further viruses can emerge to contribute to the human health burden.
9. Timetabled Teaching Activities (summary)	20 hours
10. Departmental Web-link	https://moodle.warwick.ac.uk/course/index.php?categoryid=99
11. Other essential notes	N/A
12. Assessment methods (summary)	Workshop activities; Examination

For use by Strategic Planning and Analytics Office only - Do not fill in this section

Level	JACS3 Code	Teaching Split
		<i>If not provided in 3b above</i>

External Credit Level		Scheme	

Module Context				
13. Please list all departments involved in the teaching of this module. If taught by more than one department, please indicate percentage split.				
School of Life Sciences 100%				
14. Availability of module				
Degree Code	Title	Study Year	C/OC/ A/B/C	Credits
C1B9	BSc Biomedical Science	3	0	12
CB19	BSc Biomedical Science (with Intercalated Year)	4	0	12
C1A3	MBio Biomedical Science	3	0	12
C1A7	MBio Biomedical Science with Industrial Placement	3	0	12
15. Minimum number of registered students required for module to run				
20				
16. Pre- and Post-Requisite Modules				
None				

Module Content and Teaching	
17. Teaching and Learning Activities (<i>totals for module – please see guidance</i>)	
Module duration (weeks)	20
Lectures	14
Seminars	0
Tutorials	0
Project Supervision	0
Demonstration	0
Practical Class/Workshops	6
Supervised time in studio/workshop	0
Fieldwork	None
External visits	None
Work based learning	None
Placement	None
Year abroad	None
Other activity	

Module Content and Teaching		
<i>(please describe): e.g. distance-learning, intensive weekend teaching etc.</i>	Student-led Moodle forum for discussion of virology 'news' over the course of the year.	
18. Assessment Method (Standard)		
Type of assessment	Length	% weighting
Written Examinations	1.5 Hours	90
Practical Examinations	Hours	
Assessed essays/coursework	Two workshops (written group contributions)	10
18a. Final chronological assessment <i>(please see guidance)</i>	Examination	

19. Methods for providing feedback on assessment.
Group-level feedback on workshop contributions. Class-level feedback on examination answers.

20. Outline Syllabus
<ul style="list-style-type: none"> • HIV - evolution, quasispecies, transmission • Hepatitis viruses – B, C and others • Influenza A virus - shift, drift, emergence and zoonosis, evolution, vaccines • A selection of other (incl emerging) viruses: rotaviruses, flaviviruses, dengue, WNV, Ebola, SARS, Nipah etc, considering emergence, spread, disease potential, prevention etc • Cross-cutting themes of virus variation, evolution, vaccination and epidemiology

21. Illustrative Bibliography
<p>D. L. Thomas (2013) Global control of hepatitis C: where challenge meets opportunity. <i>Nat Medicine</i> 19 (7) 850-858.</p> <p>E. de Clercq (2015) Current treatment of hepatitis B virus infections. <i>Revs Med Virol</i> 25 (6) 354-365.</p> <p>L. Botelho-Souza et al (2017) Hepatitis delta: virological and clinical aspects. <i>Virology J</i> 14, article 177.</p> <p>WHO Global Hepatitis Report, 2017. http://www.who.int/hepatitis/publications/global-hepatitis-report2017/en/</p> <p>W. Gelson and G. Alexander (2017) Is elimination of hepatitis C from the UK by 2030 a realistic goal? <i>Brit Med Bull</i> 123, 59-67.</p> <p>Y. Nan et al. (2017) Zoonotic hepatitis E virus: an ignored risk for public health. <i>Front Microbiol</i> 8, article 2396.</p> <p>Sharp PM and Hahn BH (2010) The evolution of HIV-1 and the origin of AIDS. <i>Philosophical Transactions of the Royal Society</i> 365: 2487.</p> <p>Heeney JL et al (2006) Origins of HIV and the evolution of resistance to AIDS. <i>Science</i> 313: 462.</p> <p>Kirchhoff F (2010) Immune evasion and counteraction of restriction factors by HIV-1 and other primate lentiviruses. <i>Cell Host Microbe</i> 8: 55.</p> <p>O' Connell K and Siliciano R (2008) Immune alteration fends off AIDS. <i>Nature Medicine</i> 14: 1016.</p> <p>Faria NR et al (2014) The early spread and epidemic ignition of HIV-1 in human populations. <i>Science</i> 346:</p>

56.

T. Watanabe and Y Kawaoka (2011). Pathogenesis of the 1918 pandemic influenza virus. PLoS Path 7: e1001218. doi:10.1371/journal.ppat.1001218

J.Taubenberger et al. (2001). Integrating historical, clinical and molecular genetic data in order to explain the origin and virulence of the 1918 Spanish influenza virus. Phil Trans R Soc Lond B 356: 1829-1839

WHO (2008) Update on avian influenza A (H5N1) virus infection in humans. New England J. Med. 358, 261-273

G. Neumann et al. (2009) Emergence and pandemic potential of swine-origin H1N1 influenza. Nature 459, 931-939. [An excellent review from early in the pandemic]

B.G.Hale et al. (2008) The multifunctional NS1 proteins of influenza A viruses. J Gen Virol 89, 2359-2376

D.M.Morens et al. (2013) H7N9 Avian Influenza A Virus and the Perpetual Challenge of Potential Human Pandemicity. Mbio 4: e00445-13 (DOI:10.1128/mBio.00445-13)

M.Worobey, G-Z.Han and A.Rambaut (2014) Genesis and pathogenesis of the 1918 pandemic H1N1 influenza A virus. PNAS 111: 8107-8112

Lorrot M and Vasseur M (2007). How do the rotavirus NSP4 and bacterial enterotoxins lead differently to diarrhea? Virology Journal 4, 31 (doi: 10.1186/1743-422X-4-31)

Arnold M M (2016). The rotavirus interferon antagonist NSP1: many targets, many questions. J Virol 90, 5212-5215

Yen C, Tate JE, Hyde TB, et al. Rotavirus vaccines: Current status and future considerations. Human Vaccines & Immunotherapeutics. 2014;10(6) 1436-1448.

Desselberger U (2014) Rotaviruses. Virus Research 190, 75-96. Sections 3, 7-11 are relevant, other sections provide a useful reference for look-up if needed.

Tate JE et al (2016) Global, regional and national estimates of rotavirus mortality in children <5 years of age, 2000-2013. Clin Infect Dis 62 (suppl2) S96-S105.

Delwart E (2013) A Roadmap to the Human Virome. PLoS Pathog 9(2): e1003146.

Wu Z et al (2016) Deciphering the bat virome catalog to better understand the ecological diversity of bat viruses and the bat origin of emerging infectious diseases. The ISME Journal: 10, 609-620

Foxman E.F. and Iwasaki, A. (2011) Genome-virome interactions: examining the role of common viral infections in complex disease. Nature Reviews Microbiology 9:254

22. Learning outcomes

Successful completion of the module leads to the learning outcomes. The learning outcomes identify the knowledge, skills and attributes developed by the module.

Learning Outcomes should be presented in the format "By the end of the module students should be able to..." using the table at the end of the module approval form:

Resources

23. List any additional requirements and indicate the outcome of any discussions about these.

None

Approval**24. Module leader's signature****25. Date of approval**

13 April 2018

26. Name of Approving Committee (include minute reference if applicable)

UTMC

27. Chair of Committee's signature

Philip Young (DUGS and UTMC Chair)

28. Head of Department(s) signature

Examination Information		
A1. Name of examiner (if different from module leader)		
A2. Indicate all available methods of assessment in the table below		
% Examined	% Assessed by other methods	Length of examination paper
90	10	1.5
A3. Will this module be examined together with any other module (sectioned paper)? If so, please give details below.		
A4. How many papers will the module be examined by?	<input checked="" type="checkbox"/> 1 paper <input type="checkbox"/> 2 papers	
A5. When would you wish the exam take place (e.g. Jan, April, Summer)?	April (no change)	
A6. Is reading time required?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
A7. Please specify any special exam timetable arrangements.		
A8. Stationery requirements		
No. of Answer books?	Two green books.	
Graph paper?		
Calculator?		
Any other special stationery requirements (e.g. Data books, tables etc)?		
A9. Type of examination paper		
Seen?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Open Book?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Restricted?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
If restricted, please provide a list of permitted texts:		

LEARNING OUTCOMES		
(By the end of the module the student should be able to....)	Which teaching and learning methods enable students to achieve this learning outcome? (reference activities in section 17)	Which summative assessment method(s) will measure the achievement of this learning outcome? (reference activities in section 18)
Appreciate the current status of three major human viral pandemics	Lectures, workshops and student-directed learning	Workshop assessments, Examination
Understand the potential origins of new and emerging viral pandemics	Lectures, workshops and student-directed learning	Workshop assessments, Examination
Understand the factors that influence virus transmission, epidemiology and disease impact	Lectures, workshops and student-directed learning	Workshop assessments, Examination
Understand the molecular mechanisms which underpin virus variation and evolution	Lectures, workshops and student-directed learning	Workshop assessments, Examination
Understand of the importance of viruses in global health	Lectures, workshops and student-directed learning	Workshop assessments, Examination

UTMC
Wednesday 18th September 2019
2-4pm MRI

1. **Apologies:** Stuart Allen, Nikki Glover, Nick Bullen, Steve Hicks, Rob Spooner, Katie Baker, Nic Bullen, Andre Pires Da Silva, Kevin Moffat, Bruno Frenguelli, Isabelle Carre, Graham Teakle

Present: Phil Young (Chair, DUGS), Dan Franklin (Associate DUGS), Mark Wall (DoBMS), Miriam Gifford (DoE), Katrine Wallis (Y2 ST), Leanne Williams (DoWB), Emma Anderson (Y3 ST), Khyati Morjaria, Nik Frost, Kevin Purdy (DoAd), Rebecca Freeman (HoSE)

2. **Minutes from the last meeting were agreed, the following action points were confirmed as still ongoing:**

Action Point	Update
Update Sci101 and embed in timetable	Ongoing
Add labs (Y2) into term 3	Ongoing
External Examiners Reports	Done for BMS and BC, waiting for BS (circulate at next UTMC)

All will be carried forward to the October UTMC

3. **MA form review:**

The MA forms have been independently reviewed by the module conveners, DUGS and Associate DUGS. There are no major updates to any modules, the committee approved/ratified each MA form for the following modules

Year 1- forms can be found here:

[smb://farnsworth.ads.warwick.ac.uk/shared11/Support/ESS - UG/CA and MA forms \(2018-19\)/1. MA forms/1. Year 1 MA forms/2. 2018-19 Updates/1. Following review](smb://farnsworth.ads.warwick.ac.uk/shared11/Support/ESS - UG/CA and MA forms (2018-19)/1. MA forms/1. Year 1 MA forms/2. 2018-19 Updates/1. Following review)

Module	Name	UTMC Approved
BS110	Animal and Plant Biology	Y
BS120	Y1 Labs (Biochem)	Y
BS121	Y1 Labs (BioSci)	Y
BS122	Chemistry for Biological sciences	Y
BS127	Agents of Infectious Disease	Y
BS129	Physiology & Metabolism	Y
BS131	Health and Community	Y
HR103	Environmental Biology	Y
LF101	Physical Chemistry	Y
LF103	Quantitative Skills	Y
LF104	Molecules, Cells and Organisms	Y
LF105	Animal Anatomy and Histology	Y
LF106	GSD Field Trip	Y
LF107	GSD Assessments	Y

Year 2- forms can be found here:

[smb://farnsworth.ads.warwick.ac.uk/shared11/Support/ESS - UG/CA and MA forms \(2018-19\)/1. MA forms/2. Year 2 MA forms/2. 2018-19 Updates/1. Following review](smb://farnsworth.ads.warwick.ac.uk/shared11/Support/ESS - UG/CA and MA forms (2018-19)/1. MA forms/2. Year 2 MA forms/2. 2018-19 Updates/1. Following review)

Module	Name	UTMC Approved
BS204	Neurobiology	Y
BS211	Immunology	Y
BS212	Evolution	Y
BS215	Y2 BioSci Labs	Y
BS240	Y2 Biochem Labs	Y
BS241	Y2 Assessments	Y
BS244	Protein Structure and Function	Y
BS252	Molecular Endocrinology	Y
BS255	Clinical Microbiology	Y
BS257	Ecology and its Applications	Y
BS261	Neuropharmacology	Y
BS266	Y2 Labs for Biomed Sci	Y
LF205	Genetics and Genomics	Y
LF206	Molecular Cell Biology	Y
LF208	Protein Biochemistry	Y
LF209	Human and Animal Physiology	Y
LF210	Signalling and Integration in Human Disease	Y
LF211	Immunology and Epidemiology	Y
LF213	Infection	Y
LF215	Genetics and Evolution	Y
LF216	Ecology and Environment	Y
LF217	Multicellular Systems	Y
LF219	Tools for Biochem Discovery	Y
LF223	Microbial Pathogens	Y
BS248	Plant Molecular Development (GSD)	Y
BS224	Y2 GSD Labs	Y
BS222	Sci Com for GSD	Y

Year 3- forms can be found here:

[smb://farnsworth.ads.warwick.ac.uk/shared11/Support/ESS - UG/CA and MA forms \(2018-19\)/1. MA forms/3. Year 3 MA forms/2. 2018-19 Updates](smb://farnsworth.ads.warwick.ac.uk/shared11/Support/ESS - UG/CA and MA forms (2018-19)/1. MA forms/3. Year 3 MA forms/2. 2018-19 Updates)

Module	Name	UTMC Approved
BS377	Assessment for Outside Students	Y
BS354	Y3 Assessments	Y
LF309	Study Year Abroad	Y
BS317	Advanced Immunology	Y
BS318	Protein Targeting	Y
BS341	Research Project	Y
BS347	Oncology	Y
BS348	Structural Molecular Biology	Y
BS349	Science Communication	Y
BS356	Y3 Labs for Biochemistry	Y
BS358	Biological Clocks	Y
BS362	Integrative Neuroscience	Y
BS365	Exploiting Innovations in Biology	Y
BS371	Environmental Science Management	Y
BS373	Principles of Development	Y
BS374	Modern Approaches to Human Disease	Y
BS376	Y3 Labs for Biomed Sci	Y
BS378	Y3 research project (30 CAT for GSD)	Y
BS379	Y3 Tutorials for GSD and Erasmus	Y

HR305	Bioenergy and Biorefining	Y
HR308	Extreme Environmental Biology	Y
LF301	Bacteria: Genes to Behaviour	Y
LF303	Medical Virology	Y
LF305	Dynamics of Biological Systems	Y
LF306	Synthetic Biology	Y
LF307	One World Health and Neglected Tropical Diseases	Y

Attached are the updated module approval forms for the core modules of the Mathematics of Systems MSc degree (MathSys II). We are looking forward to feedback from the teaching committee. As a short summary:

- we moved taught core modules from 12 to 15 Cats to conform with the new standard, and adapted the Cat load of the individual and group research projects accordingly to end up with 180.
- we moved 2 out of 4 core modules to a standard 10 week schedule with 20% homework and 80% written class test examination, to improve accessibility by non-CDT students. Maybe the committee has suggestions of further degree courses we could add under 14. Availability?
- we keep 2 out of 4 core modules on a 5 week dense schedule in term 1 including a viva examination component to build the cohort for the CDT and conform with student preferences (who explicitly favoured a vivas as part of the assessment). Of course these modules are still open for non-CDT students.

Thanks and best wishes

Stefan

Module Summary

10. Departmental Web-link	https://warwick.ac.uk/fac/sci/mathsys/courses/msc/ma930/
11. Other essential notes	
12. Assessment methods (summary)	Assessment will be via a viva (50%) and two written assignments (50%). Oral examination (40%) written class test (40%) coursework (20%)

Module Context				
13. Please list all departments involved in the teaching of this module. If taught by more than one department, please indicate percentage split.				
Mathematics				
14. Availability of module				
Degree Code	Title	Study Year	C/OC/A/B/C	Credits
P-G1PF	MSc Mathematics of Systems	1	C	15
	MSc+PhD Mathematics of Systems	1	C	15
P-G1P9	Interdisciplinary Mathematics	any	O	15
15. Minimum number of registered students required for module to run				
16. Pre- and Post-Requisite Modules				

Module Content and Teaching		
17. Teaching and Learning Activities (<i>totals for module – please see guidance</i>)		
Module duration (weeks)	5	
Lectures	20 (2 x 2 hours per week for 5 weeks)	
Seminars		
Tutorials	20 (2 x 2 hours per week for 5 weeks)	
Project Supervision		
Demonstration		
Practical Class/Workshops		
Supervised time in studio/workshop		
Fieldwork		
External visits		
Work based learning		
Placement		
Year abroad		
Other activity <i>(please describe): e.g. distance-learning, intensive weekend teaching etc.</i>	80 110 hours of self-study and preparation for exam	
18. Assessment Method (Standard)		
Type of assessment	Length	% weighting
Written Examinations	2 Hours	40%
Practical Examinations	Hours	
Assessed essays/coursework	Assessed coursework	20%
	Oral examination	40%
18a. Final chronological assessment (<i>please see guidance</i>)	Oral examination 50% 40%	

19. Methods for providing feedback on assessment.

Written feedback on written assignments plus informal oral feedback during classwork sessions
 Oral feedback on the oral examination
 Written feedback on the class test

20. Outline Syllabus

Basic probability: distributions characteristic functions.

Basic statistics: sample mean and variance, law of large numbers and central-limit theorem

Frequentist statistics: point estimation, confidence intervals, type-I and II errors, hypothesis tests

Bayesian statistics: likelihood, maximum likelihood, Bayes theorem, conjugate priors, credible intervals

Spectral methods for time-series analysis Ornstein-Uhlenbeck process, autocovariance, power spectrum, Weiner-Khinchin theorem

Machine-learning approaches to data analysis: gradient descent, logistic regression, linear classifier, neural networks, backpropagation and networks with hidden layers.

21. Illustrative Bibliography

C.M. Bishop, Pattern Recognition and Machine Learning, Springer 2006

J.D. Hamilton, Time Series Analysis, Princeton University Press 1994

G.E.P. Box, G.M. Jenkins and G.C. Reisel, Time Series Analysis: Forecasting and Control, Prentice Hall 1994

Notes and scientific literature provided during lectures

22. Learning outcomes

Successful completion of the module leads to the learning outcomes. The learning outcomes identify the knowledge, skills and attributes developed by the module.

Learning Outcomes should be presented in the format "By the end of the module students should be able to..." using the table at the end of the module approval form:

Resources**23. List any additional requirements and indicate the outcome of any discussions about these.**

Each student will require a laptop in order to participate in the classwork sessions

Approval

Approval**24. Module leader's signature****25. Date of approval****26. Name of Approving Committee (include
minute reference if applicable)****27. Chair of Committee's signature****28. Head of Department(s) Signature**

Examination Information		
A1. Name of examiner (if different from module leader)		
A2. Indicate all available methods of assessment in the table below		
% Examined	% Assessed by other methods	Length of examination paper
	100	
A3. Will this module be examined together with any other module (sectioned paper)? If so, please give details below.		
A4. How many papers will the module be examined by?	<input type="checkbox"/> 1 paper	<input type="checkbox"/> 2 papers
A5. When would you wish the exam take place (e.g. Jan, April, Summer)?		
A6. Is reading time required?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
A7. Please specify any special exam timetable arrangements.		
A8. Stationery requirements		
No. of Answer books?		
Graph paper?		
Calculator?		
Any other special stationery requirements (e.g. Data books, tables etc)?		
A9. Type of examination paper		
Seen?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Open Book?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Restricted?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
If restricted, please provide a list of permitted texts:		
LEARNING OUTCOMES		
(By the end of the module the student should be able to....)	Which teaching and learning methods enable students to achieve this learning outcome? (reference activities in section 15)	Which summative assessment method(s) will measure the achievement of this learning outcome? (reference activities in section 16)

Examination Information**A1. Name of examiner (if different from module leader)****A2. Indicate all available methods of assessment in the table below**

LEARNING OUTCOMES		
(By the end of the module the student should be able to....)	Which teaching and learning methods enable students to achieve this learning outcome? (reference activities in section 15)	Which summative assessment method(s) will measure the achievement of this learning outcome? (reference activities in section 16)
Pre-process and perform an exploratory analysis on a data set, summarise the salient features of the data using appropriate statistical measures, fit a hypothetical statistical model to a set of measurements and quantify the uncertainty in the model parameters, understand basic dimensionality reduction techniques to aid visualisation of high-dimensional data.	Lectures, private study, classwork	Viva, written assessment and written reports on group project.
Assess the stationarity of time-series data, understand the theory of linear time-series models, fit these models to real-world time-series and use them for forecasting, recognise non-stationary time-series and apply methods for dealing with non-stationarity, understand basic features of nonlinear time-series models.	Lectures and classes, private study, classwork	Viva and written assessment and written reports on group project.
Understand the theoretical foundations for spectral analysis of time-series data using Fourier transforms, use these algorithms to perform standard signal processing tasks such as filtering.	Lectures and classes, private study	Viva and written assignment.

UNIVERSITY OF WARWICK

Proposal Form for New or Revised Modules (MA1 - version 6 - November 2012)

Approval information	
Approval Type	<input type="checkbox"/> New module <input checked="" type="checkbox"/> Revised module <input type="checkbox"/> Discontinue module
Date of Introduction/Change	30/09/2019
If new, does this module replace another? If so, enter module code and title:	
If revised/discontinued, please outline the rationale for the changes:	
Confirmation that affected departments have been consulted:	

Module Summary	
1. Module Code (if known)	MA931
2. Module Title	Mathematics of Systems - MSc Project
3. Lead department:	Mathematics (MathSys CDT)
4. Name of module leader	Stefan Grosskinsky
5. Level	UG: <input type="checkbox"/> Level 4 (Certificate) <input type="checkbox"/> Level 5 (Intermediate) <input type="checkbox"/> Level 6 (Honours) PG: <input checked="" type="checkbox"/> Level 7 (Masters) <input type="checkbox"/> Level 8 (Doctoral) See Guidance Notes for relationship to years of study
6. Credit value(s) (CATS)	48 50
7. Principal Module Aims	Core module for summer MSc research for the MathSys CDT, involving projects from academic supervisors and external partners of the Centre.
8. Principal Learning Outcomes	To enable the students to apply the techniques and skills acquired in the MSc taught component in real research projects, guiding them for the choice of their PhD research.
9. Timetabled Teaching Activities (summary)	15 weeks full time research from beginning of June to mid September

Module Summary

10. Departmental Web-link	
11. Other essential notes	
12. Assessment methods (summary)	A project report (70%) that is assessed by core CDT staff taking into account supervisor feedback, an oral presentation on the project outcomes (30%) which is assessed by core CDT staff

Module Context

13. Please list all departments involved in the teaching of this module. If taught by more than one department, please indicate percentage split.

Credit goes to department of main supervisor.

Department	Title	CATS	
MA9BS:	Life Sciences	100%	50
MA9CH:	Chemistry	100%	50
MA9CS:	Computer Science	100%	50
MA9ES:	Engineering	100%	50
MA9WM:	W Manufacturing	100%	50
MA9MA:	Mathematics	100%	50
MA9PH:	Psychology	100%	50
MA9PX:	Physics	100%	50
MA9ST:	Statistics	100%	50
MA9EC:	Economics	100%	50
MA9IB:	W Business School	100%	50
MA9MH:	Medical School	100%	50
MA9SB:	Systems Biology	100%	50

14. Availability of module

Degree Code	Title	Study Year	C/OC/ A/B/C	Credits
Example	Accounting and Finance	1	C	12
P-G1PF	MSc Mathematics of Systems	1	C	50
	MSc+PhD Mathematics of Systems	1	C	50

15. Minimum number of registered students required for module to run

16. Pre- and Post-Requisite Modules

Module Content and Teaching

17. Teaching and Learning Activities *(totals for module – please see guidance)*

Module duration (weeks)	15
Lectures	
Seminars	10 (weekly CDT seminars, some earlier in the year)
Tutorials	
Project Supervision	20 (2 hours per week in first 5 weeks, then 1 hour per week)
Demonstration	
Practical Class/Workshops	

Module Content and Teaching		
Supervised time in studio/workshop		
Fieldwork		
External visits		
Work based learning		
Placement		
Year abroad		
Other activity <i>(please describe): e.g. distance-learning, intensive weekend teaching etc.</i>	30 hours per week of research and self-study for the project	
18. Assessment Method (Standard)		
Type of assessment	Length	% weighting
Written Examinations	Hours	
Practical Examinations	Hours	
Assessed essays/coursework	oral presentation project report in the style of a research paper, up to 8000 Words	30% 70%
18a. Final chronological assessment <i>(please see guidance)</i>	oral presentation 30%	

19. Methods for providing feedback on assessment.

Supervisor feedback on the project is made available to the students, the project report is assessed by core CDT staff who provide feedback, the oral presentation on the project outcomes is assessed by core CDT staff providing feedback.

20. Outline Syllabus

To undertake a research project with an external partner or an academic at the University of Warwick, from a list of research project proposals submitted by partners and staff approved by the MathSys CDT. Each project from external partners will have a Warwick-based co-supervisor to ensure proper support and guidance during the project.

21. Illustrative Bibliography

Will depend entirely on the nature of each research project.

22. Learning outcomes

Successful completion of the module leads to the learning outcomes. The learning outcomes identify the knowledge, skills and attributes developed by the module.

Learning Outcomes should be presented in the format "By the end of the module students should be able to..." using the table at the end of the module approval form:

Resources**23. List any additional requirements and indicate the outcome of any discussions about these.****Approval**

24. Module leader's signature	
25. Date of approval	
26. Name of Approving Committee (include minute reference if applicable)	
27. Chair of Committee's signature	
28. Head of Department(s) Signature	

Examination Information		
A1. Name of examiner (if different from module leader)		
A2. Indicate all available methods of assessment in the table below		
% Examined	% Assessed by other methods	Length of examination paper
	100	
A3. Will this module be examined together with any other module (sectioned paper)? If so, please give details below.		
A4. How many papers will the module be examined by?	<input type="checkbox"/> 1 paper	<input type="checkbox"/> 2 papers
A5. When would you wish the exam take place (e.g. Jan, April, Summer)?		
A6. Is reading time required?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
A7. Please specify any special exam timetable arrangements.		
A8. Stationery requirements		
No. of Answer books?		
Graph paper?		
Calculator?		
Any other special stationery requirements (e.g. Data books, tables etc)?		
A9. Type of examination paper		
Seen?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Open Book?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Restricted?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
If restricted, please provide a list of permitted texts:		

LEARNING OUTCOMES		
(By the end of the module the student should be able to....)	Which teaching and learning methods enable students to achieve this learning outcome? (reference activities in section 15)	Which summative assessment method(s) will measure the achievement of this learning outcome? (reference activities in section 16)
undertake independent research	private study under the guidance of project supervisors	project report and oral presentation
apply their skills from course work in mathematical modelling in a research environment to real-world problems	private study under the guidance of project supervisors	project report and oral presentation
present their project findings in a concise way in the form of a research paper	private study under the guidance of project supervisors	project report
present their project findings in a comprehensible way to their fellow students and CDT staff	private study under the guidance of project supervisors	oral presentation

UNIVERSITY OF WARWICK

Proposal Form for New or Revised Modules (MA1 - version 6 - November 2012)

Approval information	
Approval Type	<input type="checkbox"/> New module <input checked="" type="checkbox"/> Revised module <input type="checkbox"/> Discontinue module
Date of Introduction/Change	30/09/2019
If new, does this module replace another? If so, enter module code and title:	
If revised/discontinued, please outline the rationale for the changes:	
Confirmation that affected departments have been consulted:	

Module Summary	
1. Module Code (if known)	MA932
2. Module Title	Mathematics of Systems - MSc Study Groups
3. Lead department:	Mathematics
4. Name of module leader	Magnus Richardson (Director, MathSys CDT) and Colm Connaughton
5. Level	UG: <input type="checkbox"/> Level 4 (Certificate) <input type="checkbox"/> Level 5 (Intermediate) <input type="checkbox"/> Level 6 (Honours) PG: <input checked="" type="checkbox"/> Level 7 (Masters) <input type="checkbox"/> Level 8 (Doctoral) See Guidance Notes for relationship to years of study
6. Credit value(s) (CATS)	36 40
7. Principal Module Aims	A key part of the MSc training will be an innovative feature aimed at preparing students for research collaborations and teamwork with skills that cannot be taught in a traditional classroom environment. This module will rely on knowledge gained in core MathSys MSc modules.

Module Summary

8. Principal Learning Outcomes	The students will learn how to apply the skills and methods they acquired in the MSc taught programme on a research project related to real-world problems. They will undertake research in groups under the guidance of a CDT core staff member and an external partner.
9. Timetabled Teaching Activities (summary)	10 x 2 hours of study group meetings/tutorials in terms 2 and 3
10. Departmental Web-link	
11. Other essential notes	
12. Assessment methods (summary)	

Module Context				
13. Please list all departments involved in the teaching of this module. If taught by more than one department, please indicate percentage split.				
Mathematics (20%), Statistics (20%), Computer Science (20%), Physics (20%), Systems Biology (20%) Mathematics (100%)				
14. Availability of module				
Degree Code	Title	Study Year	C/OC/A/B/C	Credits
Example	Accounting and Finance	1	C	12
P-G1PF	MSc Mathematics of Systems	1	C	40
	MSc+PhD Mathematics of Systems	1	C	40
15. Minimum number of registered students required for module to run				
16. Pre- and Post-Requisite Modules				

Module Content and Teaching	
17. Teaching and Learning Activities (<i>totals for module – please see guidance</i>)	
Module duration (weeks)	20
Lectures	
Seminars	
Tutorials	20 (2 hour meetings for 10 weeks in term 2)
Project Supervision	10 (5 meetings of each group during and after the Easter break)
Demonstration	
Practical Class/Workshops	
Supervised time in studio/workshop	
Fieldwork	
External visits	
Work based learning	
Placement	
Year abroad	
Other activity (<i>please describe</i>): e.g. distance-learning, intensive weekend teaching etc.	30 hours of self-study and group work in term 2

Module Content and Teaching

	340 hours of self-study and group work during Easter break and in weeks 1-5 in term 3, including preparation of report, presentation and poster (students work basically full time on the study group in this period, except for possible preparation for written exams of optional modules)	
18. Assessment Method (Standard)		
Type of assessment	Length	% weighting
Written Examinations	Hours	
Practical Examinations	Hours	
Assessed essays/coursework	oral presentation poster presentation written project report, up to 8000 Participation and contribution (individual assessment)	30% 30% 25% 40% 50% 25%
18a. Final chronological assessment (<i>please see guidance</i>)	written project report (50%)	

19. Methods for providing feedback on assessment.

Written reports will receive written feedback from core CDT staff, poster and oral presentation will be assessed by core CDT staff and feedback provided. Feedback provided by study group mentors during group meetings and at the end of the module for individual mark.

20. Outline Syllabus

Term 2

One 2 hour class/meeting per week.

Delivered by staff mentors in collaboration with external partners

Format: Form 4 groups (3-4 students in each) around specific (hot) topics informed by external partners in the 4 main application areas Systems Biology, Socio-technical systems, Epidemiology and Industrial mathematics. Ensure spread of interest and abilities in each group. Groups meet separately each week with all groups meeting together three times: once each at beginning, middle and end.

Goal: Learn interdisciplinary teamwork skills including

- (a)Project planning
- (b)Proposal formulation
- (c)Team mentor task definition
- (d)Project implementation

Timeline:

Term 2

Week 1: Outline of possibilities and group formation:- involve students in decision making

Weeks 2-4: Groups meet and plan project. Flesh out. Write proposal.

Week 5: Present project plan to whole cohort

Weeks 6-9: Teams meet. Begin implementation and acquire needed skills and knowledge.

Week 10: Present progress to whole cohort

Easter Vacation: Each student performs agreed-upon tasks

Term 3

Format: Groups meet as needed.

Goal: Put pieces together, prepare and report. Reporting includes written report, poster and poster presentation.

Timeline:

Week 1: Poster presentations at the annual CDT retreat.

Week 2: Initial report preparation.

Week 2: Show outline to mentors

Weeks 3-4: Final report preparation

21. Illustrative Bibliography

Will depend entirely on the nature of the research projects.

22. Learning outcomes

Successful completion of the module leads to the learning outcomes. The learning outcomes identify the knowledge, skills and attributes developed by the module.

Learning Outcomes should be presented in the format "By the end of the module students should be able to..." using the table at the end of the module approval form:

Resources

23. List any additional requirements and indicate the outcome of any discussions about these.

Approval

24. Module leader's signature

25. Date of approval

26. Name of Approving Committee (include minute reference if applicable)

27. Chair of Committee's signature

28. Head of Department(s) Signature

Examination Information		
A1. Name of examiner (if different from module leader)		
A2. Indicate all available methods of assessment in the table below		
% Examined	% Assessed by other methods	Length of examination paper
	100	
A3. Will this module be examined together with any other module (sectioned paper)? If so, please give details below.		
A4. How many papers will the module be examined by?	<input type="checkbox"/> 1 paper <input type="checkbox"/> 2 papers	
A5. When would you wish the exam take place (e.g. Jan, April, Summer)?		
A6. Is reading time required?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
A7. Please specify any special exam timetable arrangements.		
A8. Stationery requirements		
No. of Answer books?		
Graph paper?		
Calculator?		
Any other special stationery requirements (e.g. Data books, tables etc)?		
A9. Type of examination paper		
Seen?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Open Book?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Restricted?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
If restricted, please provide a list of permitted texts:		

LEARNING OUTCOMES		
(By the end of the module the student should be able to....)	Which teaching and learning methods enable students to achieve this learning outcome? (reference activities in section 15)	Which summative assessment method(s) will measure the achievement of this learning outcome? (reference activities in section 16)
capture and formulate mathematical problems from applications.	weekly classes/group meetings	written report, individual assessment
Goal: Learn interdisciplinary teamwork skills including (a)Project planning (b)Proposal formulation (c)Team mentor task definition (d)Project implementation	weekly classes/group meetings	written report, individual assessment
summarize all aspects of project planning and research and report in a concise and comprehensible way, including written report, poster and poster presentation.	group meetings	written report, poster, poster presentation

UNIVERSITY OF WARWICK

Proposal Form for New or Revised Modules (MA1 - version 6 - November 2012)

Approval information	
Approval Type	<input type="checkbox"/> New module <input checked="" type="checkbox"/> Revised module <input type="checkbox"/> Discontinue module
Date of Introduction/Change	30/09/2019
If new, does this module replace another? If so, enter module code and title:	
If revised/discontinued, please outline the rationale for the changes:	
Confirmation that affected departments have been consulted:	Consultation with Mathematics has taken place.

Module Summary	
1. Module Code (if known)	MA933
2. Module Title	Networks and random processes
3. Lead department:	Mathematics (MathSys CDT)
4. Name of module leader	Stefan Grosskinsky
5. Level	UG: <input type="checkbox"/> Level 4 (Certificate) <input type="checkbox"/> Level 5 (Intermediate) <input type="checkbox"/> Level 6 (Honours) PG: <input checked="" type="checkbox"/> Level 7 (Masters) <input type="checkbox"/> Level 8 (Doctoral) See Guidance Notes for relationship to years of study
6. Credit value(s) (CATS)	12 15
7. Principal Module Aims	This will be an optional module for the revised MSc in Mathematics of Systems. The main aims are to give the students a broad background of theory and applications of complex networks and random processes, and related practical skills to use these techniques in applied mathematical research and modelling.

Module Summary	
8. Principal Learning Outcomes	Students passing the course will be familiar with basic network theoretic definitions, commonly used network statistics, probabilistic foundations of random processes, some commonly studied Markov processes / chains, and the links between these topics through random graph theory.
9. Timetabled Teaching Activities (summary)	10 x 3 hours lectures, 10 x 1 hours classwork sessions including computer work
10. Departmental Web-link	https://warwick.ac.uk/fac/sci/mathsys/courses/msc/ma933/
11. Other essential notes	
12. Assessment methods (summary)	Assessment will be via a viva (50%) and two written assignments (50%). written class test (80%) coursework (20%)

Module Context				
13. Please list all departments involved in the teaching of this module. If taught by more than one department, please indicate percentage split.				
Mathematics				
14. Availability of module				
Degree Code	Title	Study Year	C/OC/A/B/C	Credits
P-G1PF	MSc Mathematics of Systems	1	C	15
	MSc+PhD Mathematics of Systems	1	C	15
P-G1P9	Interdisciplinary Mathematics	any	C	15
15. Minimum number of registered students required for module to run				
16. Pre- and Post-Requisite Modules				

Module Content and Teaching		
17. Teaching and Learning Activities (<i>totals for module – please see guidance</i>)		
Module duration (weeks)	5 10	
Lectures	20 (2 x 2 hours per week) 30 (3 hours per week)	
Seminars		
Tutorials	20 (2 x 2 hours per week) 10 (1 hour per week)	
Project Supervision		
Demonstration		
Practical Class/Workshops		
Supervised time in studio/workshop		
Fieldwork		
External visits		
Work based learning		
Placement		
Year abroad		
Other activity (please describe): e.g. distance-learning, intensive weekend teaching etc.	80 110 hours of self-study and preparation for exam	
18. Assessment Method (Standard)		
Type of assessment	Length	% weighting

Module Content and Teaching

Written Examinations	2 Hours	80%
Practical Examinations	Hours	
Assessed essays/coursework	Coursework	20%
18a. Final chronological assessment (<i>please see guidance</i>)	oral examination (50%) written class test (80%)	

19. Methods for providing feedback on assessment.

Written work will receive written feedback. Additional oral feedback available from module leader on written work, and during classwork sessions.

20. Outline Syllabus

1. Review of important concepts from Probability
2. Discrete-time Markov chains
3. Continuous-time Markov chains
4. Stochastic models of interacting processes (including population dynamics, epidemics)
5. Basic network definitions and statistics
6. The Erdos-Renyi random graph and connection to percolation
7. Heterogeneous network models
8. Random processes on networks

21. Illustrative Bibliography

"Handbook of Stochastic Methods" by CW Gardiner, Springer 2004.
 "Probability and Random Processes" (3rd ed.) by G Grimmett and D Stirzakek, OUP 2001.
 "Random Graph Dynamics" by R Durrett, CUP 2007.

22. Learning outcomes

Successful completion of the module leads to the learning outcomes. The learning outcomes identify the knowledge, skills and attributes developed by the module.

Learning Outcomes should be presented in the format "By the end of the module students should be able to..." using the table at the end of the module approval form:

Resources**23. List any additional requirements and indicate the outcome of any discussions about these.**

Each student will require a laptop in order to participate in the classwork sessions

Approval

24. Module leader's signature

25. Date of approval

26. Name of Approving Committee (include minute reference if applicable)

27. Chair of Committee's signature

28. Head of Department(s) Signature

Examination Information		
A1. Name of examiner (if different from module leader)		
A2. Indicate all available methods of assessment in the table below		
% Examined	% Assessed by other methods	Length of examination paper
	100	
A3. Will this module be examined together with any other module (sectioned paper)? If so, please give details below.		
A4. How many papers will the module be examined by?	<input type="checkbox"/> 1 paper <input type="checkbox"/> 2 papers	
A5. When would you wish the exam take place (e.g. Jan, April, Summer)?	N/A	
A6. Is reading time required?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
A7. Please specify any special exam timetable arrangements.		
A8. Stationery requirements		
No. of Answer books?		
Graph paper?		
Calculator?		
Any other special stationery requirements (e.g. Data books, tables etc)?		
A9. Type of examination paper		
Seen?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Open Book?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Restricted?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
If restricted, please provide a list of permitted texts:		

LEARNING OUTCOMES		
(By the end of the module the student should be able to....)	Which teaching and learning methods enable students to achieve this learning outcome? (reference activities in section 15)	Which summative assessment method(s) will measure the achievement of this learning outcome? (reference activities in section 16)
Understand the probabilistic and combinatorial foundations of random processes and network theory, respectively.	Lectures, private study	Coursework and class test.
Work with standard stochastic models of population dynamics and epidemiology, such as branching and contact processes	Lectures and classes, private study	Coursework and class test.
Recall and apply standard network statistics such as degree distribution and clustering coefficient.	Lectures and classes, private study	Coursework and class test.
Work with popular random graph models such as Erdos-Renyi, Configuration Model and Preferential Attachment.	Lectures and classes, private study	Coursework and class test.
Mathematical modelling: Building a quantitative probabilistic model from a phenomenological description	Lectures and classes, private study	Coursework and class test.
Understand and implement simple algorithms to simulate random processes and networks	Classes and private study	Coursework.

UNIVERSITY OF WARWICK

Proposal Form for New or Revised Modules (MA1 - version 6 - November 2012)

Approval information	
Approval Type	<input type="checkbox"/> New module <input checked="" type="checkbox"/> Revised module <input type="checkbox"/> Discontinue module
Date of Introduction/Change	30/09/2019
If new, does this module replace another? If so, enter module code and title:	
If revised/discontinued, please outline the rationale for the changes:	
Confirmation that affected departments have been consulted:	Consultation has taken place with Mathematics.

Module Summary	
1. Module Code (if known)	MA934
2. Module Title	Numerical methods Numerical algorithms and optimization
3. Lead department:	Mathematics (MathSys DTC)
4. Name of module leader	Colm Connaughton
5. Level	UG: <input type="checkbox"/> Level 4 (Certificate) <input type="checkbox"/> Level 5 (Intermediate) <input type="checkbox"/> Level 6 (Honours) PG: <input checked="" type="checkbox"/> Level 7 (Masters) <input type="checkbox"/> Level 8 (Doctoral) See Guidance Notes for relationship to years of study
6. Credit value(s) (CATS)	12 15
7. Principal Module Aims	Numerical Algorithms and Optimisation teaches students the theory and implementation of a set of computational algorithms that provide the fundamental toolkit for advanced data analysis, simulation and optimisation. The syllabus will be drawn from the following list of topics: algorithmic structures (iteration, recursion, memoization) and computational complexity, data structures (linked lists, stacks and queues, binary indexed trees), sorting and search algorithms, Fast Fourier Transform, automatic differentiation, linear systems and the Conjugate Gradient algorithm, Singular Value Decomposition, convex and nonconvex optimisation, constrained optimisation, linear

Module Summary	
	programming, Dijkstra's algorithm and dynamic programming, discrete-event simulation.
8. Principal Learning Outcomes	After completing this module, students will understand the theoretical underpinnings of the computational algorithms and optimisation methods that appear most frequently in advanced data analysis and mathematical modelling. They will gain experience of both discrete and continuous problems. Students will also acquire practical coding experience from implementing, testing and benchmarking these algorithms on specific problems drawn from a range of applications.
9. Timetabled Teaching Activities (summary)	10 x 2 hours lectures + 10 x 2 hours tutorial classes including computer work
10. Departmental Web-link	https://warwick.ac.uk/fac/sci/mathsys/courses/msc/ma934/
11. Other essential notes	
12. Assessment methods (summary)	Assessment will be via a viva (50%) and two written assignments (50%). Oral examination (40%) written class test (40%) coursework (20%)

Module Context				
13. Please list all departments involved in the teaching of this module. If taught by more than one department, please indicate percentage split.				
Mathematics				
14. Availability of module				
Degree Code	Title	Study Year	C/OC/ A/B/C	Credits
P-G1PF	MSc Mathematics of Systems	1	C	15
	MSc+PhD Mathematics of Systems	1	C	15
P-G1P9	Interdisciplinary Mathematics	any	O	15
15. Minimum number of registered students required for module to run				
16. Pre- and Post-Requisite Modules				
None				

Module Content and Teaching	
17. Teaching and Learning Activities (<i>totals for module – please see guidance</i>)	
Module duration (weeks)	5
Lectures	20 (2 x 2 hours per week)
Seminars	0
Tutorials	20 (2 x 2 hours per week)
Project Supervision	0
Demonstration	0
Practical Class/Workshops	0
Supervised time in studio/workshop	0
Fieldwork	0
External visits	0
Work based learning	0
Placement	0
Year abroad	0

Module Content and Teaching

Other activity

(please describe): e.g. distance-learning, intensive weekend teaching etc.

~~80~~ 110 hours of self-study and preparation for exam

18. Assessment Method (Standard)

Type of assessment

Length

% weighting

Written Examinations

2 Hours

40%

Practical Examinations

Hours

Assessed essays/coursework

Assessed coursework
Oral examination

20%
40%

18a. Final chronological assessment *(please see guidance)*

Oral examination ~~50%~~ 40%

19. Methods for providing feedback on assessment.

Written feedback on written assignments plus informal oral feedback during classwork sessions
Oral feedback on the oral examination
Written feedback on the class test

20. Outline Syllabus

The syllabus will be drawn from the following list of topics:

- algorithmic structures (iteration, recursion, memoization) and computational complexity
- data structures (linked lists, stacks and queues, binary indexed trees)
- sorting and search algorithms
- Fast Fourier Transform and its applications
- Topics in numerical linear algebra: solving linear systems, conjugate gradient algorithm, singular value decomposition
- unconstrained continuous optimisation: multivariate minimisation, Nelder-Mead algorithm, automatic differentiation, gradient descent
- constrained continuous optimisation: method of Lagrange multipliers, linear programming
- discrete optimisation: Dijkstra's algorithm, dynamic programming, combinatorial optimisation

21. Illustrative Bibliography

W. H. Press *et al.*, "Numerical recipes in C", Cambridge University Press
Research articles to be provided to the students

22. Learning outcomes

Successful completion of the module leads to the learning outcomes. The learning outcomes identify the knowledge, skills and attributes developed by the module.

Learning Outcomes should be presented in the format "By the end of the module students should be able to..." using the table at the end of the module approval form:

Resources**23. List any additional requirements and indicate the outcome of any discussions about these.**

Each student will require access to a computer (such as a basic laptop) to complete coursework.

Approval

24. Module leader's signature



25. Date of approval

26. Name of Approving Committee (include minute reference if applicable)

27. Chair of Committee's signature

Approval	
28. Head of Department(s) Signature	

Examination Information		
A1. Name of examiner (if different from module leader)		
A2. Indicate all available methods of assessment in the table below		
% Examined	% Assessed by other methods	Length of examination paper
	100%	
A3. Will this module be examined together with any other module (sectioned paper)? If so, please give details below.		
No		
A4. How many papers will the module be examined by?	<input type="checkbox"/> 1 paper <input type="checkbox"/> 2 papers	
A5. When would you wish the exam take place (e.g. Jan, April, Summer)?	N/A	
A6. Is reading time required?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
A7. Please specify any special exam timetable arrangements.		
N/A		
A8. Stationery requirements		
No. of Answer books?		
Graph paper?		
Calculator?		
Any other special stationery requirements (e.g. Data books, tables etc)?		
A9. Type of examination paper		
Seen?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Open Book?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Restricted?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
If restricted, please provide a list of permitted texts:		

LEARNING OUTCOMES		
(By the end of the module the student should be able to....)	Which teaching and learning methods enable students to achieve this learning outcome? (reference activities in section 15)	Which summative assessment method(s) will measure the achievement of this learning outcome? (reference activities in section 16)
<p>(a) <u>Subject knowledge and understanding</u> Students should be able to demonstrate a deep fundamental understanding of the most important computational algorithms used for advanced data analysis, mathematical modelling and optimisation of complex systems. They should be able to apply both discrete and continuous approaches depending on the requirements of a particular problem. They should understand algorithmic structures like iteration, recursion and memorization and be able to apply them.</p>	Lectures; assessed coursework; reading; private study.	Oral examination, assessed coursework, written class test.
<p>b) <u>Key Skills</u> Mathematical manipulation and computational problem-solving techniques.</p>	Lectures; coursework.	Oral examination, assessed coursework, written class test.
<p>(c) <u>Cognitive Skills</u> Identify the most appropriate approach for computational solution of a mathematical problem and understand problems that can arise such as numerical error, poor conditioning or instability. Appreciate the computational complexity of an algorithm and the practical constraints it imposes on problem solving. Read and understand relevant research papers.</p>	Lectures; coursework; reading.	Oral examination and assessed coursework.
<p>(d) <u>Subject-Specific/Professional Skills</u></p>	Coursework, private study	Assessed coursework

LEARNING OUTCOMES		
(By the end of the module the student should be able to....)	Which teaching and learning methods enable students to achieve this learning outcome? (reference activities in section 15)	Which summative assessment method(s) will measure the achievement of this learning outcome? (reference activities in section 16)
Write efficient Julia code for computational solution of analysis and optimisation problems, select appropriate data structures and algorithms, present and visualise algorithm outputs and results of analyses in a clear and informative way.		

UNIVERSITY OF WARWICK

Proposal Form for New or Revised Modules (MA1 - version 6 - November 2012)

Approval information	
Approval Type	<input type="checkbox"/> New module <input checked="" type="checkbox"/> Revised module <input type="checkbox"/> Discontinue module
Date of Introduction/Change	30/09/2019
If new, does this module replace another? If so, enter module code and title:	
If revised/discontinued, please outline the rationale for the changes:	
Confirmation that affected departments have been consulted:	

Module Summary	
1. Module Code (if known)	MA999
2. Module Title	Fundamentals of Mathematical Modelling
3. Lead department:	Mathematics
4. Name of module leader	Yulia Timofeeva
5. Level	UG: <input type="checkbox"/> Level 4 (Certificate) <input type="checkbox"/> Level 5 (Intermediate) <input type="checkbox"/> Level 6 (Honours) PG: <input checked="" type="checkbox"/> Level 7 (Masters) <input type="checkbox"/> Level 8 (Doctoral) See Guidance Notes for relationship to years of study
6. Credit value(s) (CATS)	15
7. Principal Module Aims	This is a core module for the Mathematics for Real-World Systems II CDT renewal. The aim is to introduce students to cutting-edge topics in mathematical modelling that cover the application areas of the CDT: biomedical science, epidemiology, socio-technical systems, and industrial processes and optimization. The topics covered will be used as examples to illustrate fundamental modelling approaches, in particular multiscale modelling and hybrid modelling, which bridges the divide between a priori and data-driven methods .

Module Summary

8. Principal Learning Outcomes	The students will learn how to use the knowledge and techniques they have acquired in the other core modules of the MSc programme to tackle particular mathematical challenges which are related to real world problems of partners of the CDT.
9. Timetabled Teaching Activities (summary)	10 x 3 hours lectures + 10 x 1 hours tutorial classes
10. Departmental Web-link	https://warwick.ac.uk/fac/sci/mathsys/courses/msc/ma999/
11. Other essential notes	
12. Assessment methods (summary)	written class test (80%) written homework assignment (20%)

Module Context				
13. Please list all departments involved in the teaching of this module. If taught by more than one department, please indicate percentage split.				
Mathematics (25%), Physics (25%), Statistics (25%), Computer Science (25%) Mathematics				
14. Availability of module				
Degree Code	Title	Study Year	C/OC/A/B/C	Credits
P-G1PF	MSc Mathematics of Systems	1	⊖ C	15
	MSc+PhD Mathematics of Systems	1	⊖ C	15
P-G1P9	Interdisciplinary Mathematics	any	O	15
15. Minimum number of registered students required for module to run				
16. Pre- and Post-Requisite Modules				

Module Content and Teaching	
17. Teaching and Learning Activities (<i>totals for module – please see guidance</i>)	
Module duration (weeks)	10
Lectures	3 hours per week
Seminars	
Tutorials	1 hour per week
Project Supervision	
Demonstration	
Practical Class/Workshops	
Supervised time in studio/workshop	
Fieldwork	
External visits	
Work based learning	
Placement	
Year abroad	
Other activity (please describe): e.g. distance-learning, intensive weekend teaching etc.	110 hours of self-study

Module Content and Teaching

18. Assessment Method (Standard)

Type of assessment	Length	% weighting
Written Examinations	2 Hours	80%
Practical Examinations	Hours	
Assessed essays/coursework	Assessed coursework oral presentation about a specific paper/topic assessed report on literature review (5-10 pages)	20%
18a. Final chronological assessment (<i>please see guidance</i>)	assessed report on literature review (50%) assessed class test (80%)	

19. Methods for providing feedback on assessment.

Coursework will receive written feedback. Additional oral feedback available from lecturer and TA during problem classes.

20. Outline Syllabus

The module will provide practical examples of the two research themes of the MathSys II CDT: (1) Multiscale Modelling and (2) Hybrid Modelling. These will be demonstrated using practical examples taken from the application areas of the CDT: quantitative biomedical research, mathematical epidemiology, socio-technical systems and advanced modelling and optimisation of industrial processes. Students will learn how to relate and apply the skills learned in the first-term core modules and understand how the various theoretical methodologies can be used to solve real-world problems. The concepts utilised will include: symmetries and constraints, phase transitions, stochastic and deterministic modelling, data-driven modelling, agent-based modelling, course graining, non-linearities and bifurcations and probability.

21. Illustrative Bibliography

Recent research papers in the field of the 4 lecturers. Will be made available well in advance when the module is advertised to the students.

22. Learning outcomes

Successful completion of the module leads to the learning outcomes. The learning outcomes identify the knowledge, skills and attributes developed by the module.

Learning Outcomes should be presented in the format "By the end of the module students should be able to..." using the table at the end of the module approval form:

Resources**23. List any additional requirements and indicate the outcome of any discussions about these.**

Blackboard and projector.

Approval

24. Module leader's signature



25. Date of approval

26. Name of Approving Committee (include minute reference if applicable)

27. Chair of Committee's signature

Approval	
28. Head of Department(s) Signature	

Examination Information		
A1. Name of examiner (if different from module leader)		
A2. Indicate all available methods of assessment in the table below		
% Examined	% Assessed by other methods	Length of examination paper
0%	100%	-
A3. Will this module be examined together with any other module (sectioned paper)? If so, please give details below.		
No		
A4. How many papers will the module be examined by?	1 paper <input type="checkbox"/> 2 papers <input type="checkbox"/>	
A5. When would you wish the exam take place (e.g. Jan, April, Summer)?		
A6. Is reading time required?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
A7. Please specify any special exam timetable arrangements.		
Exam organised in the maths department by the CDT 10am-noon Friday of week 10. No need for central exam timetabling.		
A8. Stationery requirements		
No. of Answer books?		
Graph paper?		
Calculator?		
Any other special stationery requirements (e.g. Data books, tables etc)?		
A9. Type of examination paper		
Seen?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Open Book?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Restricted?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
If restricted, please provide a list of permitted texts:		

LEARNING OUTCOMES		
(By the end of the module the student should be able to....)	Which teaching and learning methods enable students to achieve this learning outcome? (reference activities in section 15)	Which summative assessment method(s) will measure the achievement of this learning outcome? (reference activities in section 16)
Apply mathematical modelling techniques taught in the core of the course to cutting-edge research questions	Lectures, group work in tutorials, reading, private study	coursework and exam
Become acquainted with a range of application areas in modern mathematical modelling. Appreciate which real-world problems are amenable to solution by modelling approaches and which ones are the appropriate tools.	lectures	coursework and exam

Department of Mathematics
Teaching Committee
University of Warwick

Wednesday 6 March 2019
13:00 in C1.06

Present: Stefan Adams, Nick d'Ambrumenil (Physics), Gavin Brown (Chair), Inna Capdeboscq, Jonathan Cave (Economics), Charlie Elliott, Stefan Grosskinsky, Louise Hasler, Philip Herbert (SGSLC), Thomas Hornsby (SSLC), Fiona Linton, Karen McKinley (Minutes), James Robinson, José Rodrigo, Damiano Testa, Elke Thönnies, Dave Wood.

Apologies: None

MINUTES

The Chair welcomed and thanked those attending the meeting.

1. Minutes of the last Teaching Committee Meeting [Appendix A]
The minutes of the meeting held on 6 February 2019 were approved.

2. Matters arising from the Minutes

Item 2) Matters Arising from the Minutes: It was noted that Nav Patel was currently addressing the issue of student access to the Zeeman Building's C corridors.

Item 5) Examinations: It was noted that Andrew Brendon-Penn had agreed to coordinate the proposed midterm examination for MA131 Analysis. The Committee agreed to investigate whether a midterm examination could also be implemented for MA132 Foundations.

Action: Gavin Brown to consider the feasibility of a midterm examination for MA132 Foundations.

Item 6) Personal Tutor Training: It was noted that Gavin Brown would collect feedback on personal tutor training at the next Staff Meeting (1 May 2019).

Item 9) Timetabling: It was noted that Gavin Brown had met with Dave Wood and Karen McKinley in order to discuss options to improve the timetable for second years with regards to avoiding 9am lectures, and for third/fourth years with regards to clashes.

Item 13) Any Other Business: It was noted that Gavin Brown had emailed staff teaching MA4 modules in order to ascertain the level of support for the proposal to have topics for module prerequisites rather than designated modules. Action: Gavin Brown to bring the responses to the next Teaching Committee Meeting

3. Director of Undergraduate Studies Business

There were no matters arising.

4. MSc MathSys

Stefan Grosskinsky noted that the rationale for proposed changes to MathSys modules (see item 8) was to:

- improve accessibility to non-MathSys students with some modules running over ten weeks
- conform to the new 15 CAT standard
- incorporate current MathSys student preferences with some modules running over five weeks

A concern was raised that assessment for these modules would need to be ratified prior to MathSys's September exam board in order for students to graduate in the summer.

5. Peer Observation Proposal [Appendix B]

Policy recommendations regarding peer observations from SLEEC (as outlined in Appendix B) were considered. The Director of Undergraduate Studies noted that as these recommendations reflect the current Department practice/ethos we fundamentally support the proposed measures.

Action: Staff with comments pertaining to the recommendations to liaise with Gavin Brown or Louise Hasler prior to the 15 March 2019 deadline.

6. Credit Framework Feedback Mechanisms

It was noted that the University had invited feedback regarding the Credit Framework: <https://warwick.ac.uk/services/aro/dar/quality/categories/reviewcf>. The University-wide harmonisation of credit tariffs (proposed in order to facilitate greater interdisciplinarity) was discussed. A concern was raised that increasing first and second year modules from 12 to 15 CATS would result in those students taking eight instead of ten modules in order to fulfil 120 CATS. It was felt that this would impact the current first and second year curricula and reduce the number of interdisciplinary options taken by students.

Action: Gavin Brown to inform staff of the review of the credit framework and to encourage participation.

7. Examinations

Damiano Testa noted that with a few exceptions, the examinations process was progressing well and that feedback from External Examiners had been timely and well detailed. It was noted, however, that late papers impacted negatively on the process as a whole.

Action: Gavin Brown and Damiano Testa to decide the optimum way of obtaining outstanding exam papers from academics.

Action: Louise Hasler and Fiona Linton to liaise regarding a review of the Departmental examinations process.

8. New Modules

A document was circulated outlining proposed revisions for MathSys modules, and a proposed new MA3 module High-Dimensional Probability.

Revised Modules

MA930 - Data Analysis and Machine Learning – Magnus Richardson:

The Committee unanimously approved the following proposals for MA930:

- amend the title from Data Analysis to Data Analysis and Machine Learning
- amend the CATS from 12 to 15
- amend the assessment to Oral Examination (40%), Written Class Test (40%) and Coursework (20%)

MA931 - Mathematics of Systems - MSc Project – Stefan Grosskinsky:

The Committee unanimously approved the proposal to amend the CATS from 48 to 50 for MA931, although it was noted that this could require further consideration in due course.

MA932 - Mathematics of Real World Systems - MSc Research Study Groups – Magnus Richardson and Colm Connaughton:

The Committee unanimously approved the following proposals for MA932:

- amend the CATS from 36 to 40
- amend the assessment to Poster Presentation (25%), Written Project Report, up to 8000 words (50%) and Participation and Contribution (individual assessment) (25%)
- amend departments involved in teaching to 100% Mathematics

MA933 - Networks and Random Processes – Stefan Grosskinsky:

The Committee unanimously approved the following proposals for MA933:

- amend the CATS from 12 to 15
- amend the assessment to Written Class Test (80%) and Coursework (20%)
- amend the module duration from 5 to 10 weeks

MA934 – Numerical Algorithms and Optimization – Colm Connaughton:

The Committee unanimously approved the following proposals for MA934:

- amend the title from Numerical Methods to Numerical Algorithms and Optimization
- amend the CATS from 12 to 15
- amend the assessment to Oral Examination (40%), Written Class Test (40%) and Coursework (20%)

MA999 – Fundamentals of Mathematical Modelling – Yulia Timofeeva:

The Committee unanimously approved the following proposals for MA999:

- amend the title from Topics in Mathematical Modeling to Fundamentals of Mathematical Modelling
- amend the assessment to Assessed Class Test (80%) and Assessed Coursework (20%)
- amend departments involved in teaching to 100% Mathematics

New Modules

MA3 – High-Dimensional Probability – Stefan Adams:

The Committee requested that the prerequisites for this proposed MA3 module should be reworded to allow equivalent prerequisite modules for Statistics students, such as MA258 Mathematical Analysis III, ST208 Mathematical Methods and ST342 Mathematics of Random Events. The Committee approved the proposed module unanimously.

MA2 – Modelling and Numerics – Andreas Dedner:

It was noted that there was no paperwork for this proposed MA2 module at the meeting. The Chair gave a verbal outline of the proposed module. It was noted that the module would replace the five week MA228 Numerical Analysis, although it would be a ten week module. It was noted that there would be incorporated computing classes in order for students to learn Python. The assessment for the module would be three pieces of assessed coursework (50%) and a one hour exam (50%). The module was expected to run in 2019/20. The Committee approved the proposed module unanimously in principle.

Action: Gavin Brown to circulate the MA1 form to the Committee for further comments, with a view to approving the module by Chair's Action.

Course Proposal

The Mathematics of Systems:

The Committee unanimously approved minor adjustments in section seven of the circulated course proposal form.

It was noted that a number of modules, without fully completed MA1 forms would require updating in due course for Teaching Quality.

A suggestion was made that changes to assessment for Maths modules should not require approval from SPA. It was agreed that lecturers should divulge any changes to assessment as early as possible to both Fiona Linton and Dave Wood.

9. Student Experience

It was noted that the closing date for the NSS was 30 April 2019 and that currently 55.19% of our eligible students had completed the survey.

Staff were reminded to be vigilant of students' wellbeing during the examination period.

10. Timetabling

There were no matters arising.

11. Matters Arising from the SSLC

It was noted that students were generally in favour of the proposed midterm examination for MA131 Analysis. It was noted that Maths Physics students were concerned that there was a slight disconnect between MA137 Mathematical Analysis and MA244 Analysis III.

Action: Gavin Brown to consider this concern further

12. Matters Arising from the SGSLC

It was noted that students had expressed significant support for the proposal to have topics for module prerequisites rather than designated modules.

13. Date of Next Meeting

The date of the next Teaching Committee Meeting was confirmed as 15 May 2019.

14. Any Other Business

A suggestion was made to update the provision of papers for Teaching Committee Meetings from the current provision of both electronic and hard copies, to electronic copies only. The Committee agreed to trial this suggestion at the next meeting.

SEMEC Audit of WMG Departmental Quality Assurance Procedures: Covering Note

WMG have approved a large number of new and revised modules across the academic year 18/19, and accordingly have provided full minutes of our Learning and Teaching Committee meetings across the year, along with a selection of five of the approved MA1s and pointers to the specific minute references wherein these were considered and approved.

WMG have also altered our approach to consideration modules (and courses) for approval during 18/19 as follows:

- Since April 2019 course and module proposals have been scrutinised online by monthly remote Approval Panels rather than directly discussed at meetings of the Learning and Teaching Committee (LTC); this was agreed at the March 2019 LTC meeting (minute 13b).
- This was done to improve the efficiency of consideration of courses and modules, since the committee had been receiving a high volume of paperwork and proposers often had to wait several weeks for feedback (LTC meetings taking place every 6 weeks); panels were arranged to be monthly with the aim to return the decision and comments to the proposer within the same month.
- The membership of the Approval Panels is largely the same as that of the LTC, with exceptions such as WMG's Director of Administration (Finance) being involved in scrutiny of course proposals when that role is not otherwise involved in LTC business.
- The Approval Panels are split with one side of the panel looking at the academic appropriateness of the proposal, and the other side reviewing any resourcing constraints which might need further discussion with the proposer; there is also a proofreading check carried out by the Academic Quality Officer at the same time.
- The Approval Panels report directly into the LTC with their decisions being reported below the line in LTC agendas and minutes; WMG have recognised that there should be more formal minutes of the approval panels themselves and will be addressing this going forward, but for the purposes of this audit are only able to provide the LTC minutes into which the panels have reported.
- The panels have operated as follows in terms of practicality:
 - o Microsoft Word versions of the MA1 forms are uploaded to a SharePoint site where the panel members add comments directly into the documents, which are then returned to the proposers to address the comments.
 - o If the comments are minimal then returned proposals are considered by a smaller Chair's Action Panel, but if the modifications required are major then the proposal has to be brought back to a full panel; Chair's Action Panels are also used for particularly urgent proposals.
 - o A Chair's Action Panel is composed of the Chair of the academic side panel, the Chair of the resourcing side panel, and the Academic Quality Officer (for proofreading)
 - o MA1s are finally checked and signed off by the Director of Education on behalf of the Head of Department.
- Previous to this the LTC method of operation had also been to comment on files on the SharePoint site; only major concerns were discussed and minuted in the meetings, and were fed back to proposers alongside the document with comments.

Below is a summary of the documentation WMG are providing for this audit of approvals taking place during 18/19.

Committee approving MA1s		MA1s provided for audit	Minutes provided for audit
Aug-18	Learning and Teaching Committee	n/a (no MA1s considered for approval at this meeting)	n/a
Sep-18	Learning and Teaching Committee	Logistics and Operations Management (PGT, 10 credit)	Considered: Sep-18 min 6.2.2 Approved: Chair's Action reported to Nov-18 min 4
Nov-18	Learning and Teaching Committee	Lean Operations & Design Management (PGT, 10 credit)	Considered: Nov-18 min 6.3.3 Approved: Chair's Action reported to Jan-19 min 15
Dec-18	Learning and Teaching Committee	Technology Management (PGT, 15 credit)	Considered: Dec-18 min 6.3.4 Approved: Chair's Action reported to Mar-19 min 16
Jan-19	Learning and Teaching Committee	e-Business Fundamentals (PGT, 15 credit)	Considered: Jan-19 min 6.2 Approved: Chair's Action reported to Mar-19 min 16
Mar-19	Learning and Teaching Committee	Functional Systems (UG, 15 credit)	Considered: Mar-19 min 8.5 Approved: Chair's Action reported to May-19 min 19
Apr-19	Approval Panel (remote)	n/a (those approved for 19/20 have been through FEC Chair's scrutiny)	Reported to Jun-19 LTC min 16 (due to timing of agenda preparation for May-19 LTC)
Jun-19	Approval Panel (remote)	n/a (those approved for 19/20 have been through FEC Chair's scrutiny)	Reported to Aug-19 LTC min 17
Jul-19	Approval Panel (remote)	n/a (those approved for 19/20 have been through FEC Chair's scrutiny)	Reported to Aug-19 LTC min 17

As stated above, for the purposes of future audits and for clarity in submission of course proposals to the University Course Proposal Scrutiny Panels, WMG will from now on be creating formal minutes for the remote Approval Panels. These will be headed with a clear decision grid for the Chairs to complete, followed by a table wherein panel members will write comments about each section of the online MA1 form or enter their names to confirm they have scrutinised the documents if they have no comments. Comments will be formalised by the Chairs prior to these being returned to proposers by the Academic Quality Team. These minutes will be stored and will be available for any future audit.

Dr Jeff Jones
Director of Academic Quality

Amy Collins
Academic Quality Officer

UNIVERSITY OF WARWICK

Logistics & Operations Management MSc (MA1 - version 7 - April 2014)

Approval information	
Approval Type	<input type="checkbox"/> New module <input checked="" type="checkbox"/> Revised module <input type="checkbox"/> Discontinue module
Date of Introduction/Change	October 2018
If new, does this module replace another? If so, enter module code and title:	
If revised/discontinued, please outline the rationale for the changes:	Clarification of Learning outcomes
Confirmation that affected departments have been consulted:	Yes

Module Summary	
1. Module Code (if known)	ES961-10
2. Module Title	Logistics & Operations Management
3a. Lead department:	WMG
3b. Teaching Split (if known):	
4. Name of module leader	Morag Malins
5. Level	UG: <input type="checkbox"/> Level 4 (Certificate) <input type="checkbox"/> Level 5 (Intermediate) <input type="checkbox"/> Level 6 (Honours) PG: <input checked="" type="checkbox"/> Level 7 (Masters) <input type="checkbox"/> Level 8 (Doctoral) See Guidance Notes for relationship to years of study
6. Credit value(s) (CATS)	10
7. Principal Module Aims	Operations management involves transforming inputs (capital, labour and materials) efficiently and effectively into outputs valued by the end customer in manufacturing or service environments. Logistics is recognised as a key function in meeting market requirements quickly, flexibly and without incurring punitive inventory costs. To be competitive companies need to manage operations and logistics both internally and externally across all

Module Summary	
	their supply chains. This module will give students a comprehensive understanding of tools and techniques involved in operations and logistics management. This will enable students to evaluate which tools, techniques and technologies are most applicable in different industrial contexts.
8. Principal Learning Outcomes	<ul style="list-style-type: none"> • Comprehensively understand the interrelationships and interdependencies between capacity, inventory and delivery performance. • Critically evaluate how to manage capacity, inventory and delivery to achieve effective and efficient operational performance. • Compare and contrast different tools and techniques for the planning and control of logistics and operations management and justify their use in a variety of operational environments. • Demonstrate awareness of appropriate technology and critically appraise how it can be applied to improve operations management within a supply chain.
9. Timetabled Teaching Activities (summary)	5 days or 33 hours minimum (lectures and seminars)
10. Departmental Web-link	https://warwick.ac.uk/fac/sci/wmg/globalcontent/outlines/lom
11. Other essential notes	
12. Assessment methods (summary)	<p>Assessment methods vary to suit different delivery programmes</p> <ol style="list-style-type: none"> 1. 100% written assignment (coursework) 2. 20% in-module oral assessment & presentation (practical), 80% written assignment (coursework) 3. 30% in-module oral assessment & presentation (practical), 70% written assignment (coursework)

For use by Strategic Planning and Analytics Office only - Do not fill in this section

Level	JACS3 Code	Teaching Split
		<i>If not provided in 3b above</i>

External Credit Level		Scheme	

Module Context

13. Please list all departments involved in the teaching of this module. If taught by more than one department, please indicate percentage split.

WMG

14. Availability of module

Degree Code	Title	Study Year	C/OC/A/B/C – not sure how to translate from WMG terms	Credits
	<u>UK Full-time Masters Courses (core, required or essential core)</u> MSc in Engineering Business Management MSc in Manufacturing Systems Engineering and Management MSc in Supply Chain & Logistics Management <u>UK Full-time Masters Courses (elective)</u> MSc in Innovation and Entrepreneurship MSc in International Trade, Strategy and Operations MSc in Management for Business Excellence MSc in Programme and Project Management MSc in Smart, Connected and Autonomous Vehicles MSc in Service Management & Design MSc in Sustainable Automotive Engineering <u>Part-time UK Masters courses</u> MSc in Engineering Business Management MSc in International Trade, Strategy and Operations MSc in Manufacturing Systems Engineering and Management MSc in Programme and Project Management MSc in Service Management & Design MSc in Supply Chain & Logistics Management MSc in Sustainable Automotive Engineering <u>Overseas programmes</u> China BCU MSc in Programme and Project Management Hong Kong PolyU programme: - MSc in Engineering Business Management - MSc in Manufacturing Systems Engineering and Management - MSc in Supply Chain & Logistics Management North Cyprus Eastern Mediterranean University Programme - MSc in Engineering Business Management - MSc in Supply Chain & Logistics Management Singapore - MSc in Engineering Business Management - MSc in Supply Chain & Logistics Management - MSc in Programme and Project Management Thailand - MSc in Engineering Business Management - MSc in Supply Chain & Logistics Management	N/A	Core or Required Core or Required Core, Essential core, or Required Elective Elective Elective Elective Elective Elective Elective Elective Elective Technology & Operations Technology & Operations Technology & Operations Core Technology & Operations Optional/elective Technology & Operations List A Core Technology & Operations Essential core Operations, optional Essential core Optional/elective Operations, optional Essential core	10

15. Minimum number of registered students required for module to run

16 students

16. Pre- and Post-Requisite Modules

None

Module Content and Teaching		
17. Teaching and Learning Activities (<i>totals for module – please see guidance</i>)		
Module duration (weeks)	5 days, 33 hours minimum (lectures and seminars)	
Lectures and seminars	33 hours split between lectures & seminars as appropriate. e.g. 15 hours of lectures and 18 hours of seminars.	
Tutorials		
Project Supervision		
Demonstration		
Practical Class/Workshops		
Supervised time in studio/workshop		
Fieldwork		
External visits		
Work based learning		
Placement		
Year abroad		
Other activity <i>(please describe): e.g. distance-learning, intensive weekend teaching etc.</i>	Maximum of 67 hours of guided independent study to prepare for the assessment.	
18. Assessment Method (Standard)		
Type of assessment	Length	% weighting
Written Examinations	Hours	
Practical Examinations	Hours	
Assessed essays/coursework	<p>There are 3 different assessment modes. In addition to testing the learning outcomes they are designed to suit the different delivery modes and student characteristics for different programmes.</p> <p><u>UK part-time Masters courses, Overseas programmes (Singapore)</u> Written post module assignment (typically 4,000 words).</p> <p><u>UK Full-time Masters Courses, Overseas programmes (China BCU, North Cyprus Eastern Mediterranean University Programme, Thailand)</u> In-module oral assessment & presentation. Written post module assignment (typically 4,000 words).</p> <p><u>Overseas programmes (Hong Kong PolyU)</u> In-module oral assessment & presentation.</p>	<p>100%</p> <p>20%</p> <p>80%</p> <p>30%</p>

Module Content and Teaching

	Written post module assignment (typically 4,000 words).	70%
18a. Final chronological assessment (<i>please see guidance</i>)	One assessment component of 100% only	

19. Methods for providing feedback on assessment.

In module assessment feedback

During the module in (lectures/seminars) formative oral feedback will be provided on the in-module assessment.

Marks included in the feedback given on the written post module assignment.

Written assignment feedback

Marks returned for in-module assessment and for written assignment. Written feedback of a minimum of 250 words will be provided for the written post module assignment using the WMG feedback template. This feedback will be focussed upon the strengths and weaknesses of the work with regard to the module learning outcomes and the post-module assignment marking guidelines. Suggestions for improvement will also be provided.

20. Outline Syllabus

- Relationship of Logistics and Operations Management strategy with other business strategies
- Theory & principles of supply chain management
- Basic planning & control techniques:
 - Forecasting demand
 - Capacity management
 - Scheduling and sequencing
 - Inventory management
 - Planning & control systems and methodologies (Material Requirements Planning, Manufacturing Resource Planning, Just In Time)
- Examples of applications of logistics and operations management in a range of industries, including manufacturing and service environments

21. Illustrative Bibliography

Bowersox, D. J., Closs, D. J. and Cooper, M. B. (2013). Supply Chain Logistics Management. 4th ed. New York: McGraw-Hill Higher Education.

Chopra, S. and Meindl, P. (2016). Supply chain management: strategy, planning, and operation. 6th ed. Harlow, Essex, England: Pearson.

McKinnon, A; Browne, M.; Dr Anthony Whiteing, A.; Maja Piecyk, M (2017). Green Logistics: Improving the Environmental Sustainability of Logistics. Kogan Page.

Harrison, A., Van Hoek, R. I. and Skipworth, H. (2014) Logistics management and Chapman, S. (2016). Introduction to Materials Management (8th Edition). Pearson.

Christopher, M. (2016). Logistics & Supply Chain Management. Harlow, England: Pearson.

Manas, J. (2015). The resource management and capacity planning handbook: a guide to maximizing the value of your limited people resources. New York: McGraw Hill Education.

Myerson, P. (2012) Lean supply chain and logistics management. New York: McGraw-Hill. Nick T. Relph, G, Milner, C; (2015), Inventory Management: Advanced Methods for Managing Inventory within Business Systems, Kogan Page, ISBN: 0749473681

Slack, N. and Brandon-Jones, A. (2018) Operations and process management: principles and practice for strategic impact. Fifth edition. Harlow, England: Pearson.

Slack, N., Brandon-Jones, A. and Johnston, R. (2016) Operations management. Eighth edition. Harlow: Pearson.

Waller, M. A. and Esper, T. L. (2014). The definitive guide to inventory management: principles and strategies for the efficient flow of inventory across the supply chain. Upper Saddle River, New Jersey: Pearson Education, Inc.

Wang, Y. and Pettit, S. J. (eds) (2016) E-logistics: managing your digital supply chains for competitive advantage. London: Kogan Page.

22. Learning outcomes

Successful completion of the module leads to the learning outcomes. The learning outcomes identify the knowledge, skills and attributes developed by the module.

Learning Outcomes should be presented in the format "By the end of the module students should be able to..." using the table at the end of the module approval form:

Resources

23. List any additional requirements and indicate the outcome of any discussions about these.

None

Approval

24. Module leader's signature	Morag Malins
25. Date of approval	26/09/2018
26. Name of Approving Committee (include minute reference if applicable)	Learning and Teaching Committee, 30 October 2018, Chair's Action
27. Chair of Committee's signature	
28. Head of Department(s) signature	

Examination Information		
A1. Name of examiner (if different from module leader)		
A2. Indicate all available methods of assessment in the table below		
% Examined	% Assessed by other methods	Length of examination paper
	100%	
A3. Will this module be examined together with any other module (sectioned paper)? If so, please give details below.		
A4. How many papers will the module be examined by?	<input type="checkbox"/> 1 paper <input type="checkbox"/> 2 papers	
A5. When would you wish the exam take place (e.g. Jan, April, Summer)?		
A6. Is reading time required?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
A7. Please specify any special exam timetable arrangements.		
A8. Stationery requirements		
No. of Answer books?		
Graph paper?		
Calculator?		
Any other special stationery requirements (e.g. Data books, tables etc)?		
A9. Type of examination paper		
Seen?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Open Book?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Restricted?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
If restricted, please provide a list of permitted texts:		

LEARNING OUTCOMES		
(By the end of the module the student should be able to....)	Which teaching and learning methods enable students to achieve this learning outcome? (reference activities in section 17)	Which summative assessment method(s) will measure the achievement of this learning outcome? (reference activities in section 18)
Comprehensively understand the interrelationships and interdependencies between capacity, inventory and delivery performance.	Lectures, seminars.	Written post module assignment.
Critically evaluate how to manage capacity, inventory and delivery to achieve effective and efficient operational performance.	Lectures, seminars.	Written post module assignment.
Compare and contrast different tools and techniques for the planning and control of logistics and operations management and justify their use in a variety of operational environments.	Lectures, seminars.	Written post module assignment.
Demonstrate awareness of appropriate technology and critically appraise how it can be applied to improve operations management within a supply chain.	Lectures, seminars.	Written post module assignment.

UNIVERSITY OF WARWICK

Proposal Form for New or Revised Modules (MA1 - version 7 - April 2014)

Approval information	
Approval Type	<input checked="" type="checkbox"/> New module <input type="checkbox"/> Revised module <input type="checkbox"/> Discontinue module
Date of Introduction/Change	2019/20
If new, does this module replace another? If so, enter module code and title:	No
If revised/discontinued, please outline the rationale for the changes:	Required to split apart from an existing module (Lean Principles and Applications) that carries different credit and is for part-time company-based students. This one is for full-time and overseas courses and has been in operation for over 10 years.
Confirmation that affected departments have been consulted:	N/A

Module Summary	
1. Module Code (if known)	WM947-10
2. Module Title	Lean Operations Design and Management
3a. Lead department:	WMG
3b. Teaching Split (if known):	
4. Name of module leader	Neil Davis
5. Level	UG: <input type="checkbox"/> Level 4 (Certificate) <input type="checkbox"/> Level 5 (Intermediate) <input type="checkbox"/> Level 6 (Honours) PG: <input checked="" type="checkbox"/> Level 7 (Masters) <input type="checkbox"/> Level 8 (Doctoral) See Guidance Notes for relationship to years of study
6. Credit value(s) (CATS)	10
7. Principal Module Aims	“Lean”, as a concept, gained wide popularity in the early 1990s partly as a result of a study undertaken by MIT to understand why Japanese companies were so much more successful than their Western counterparts in competing in the auto motive sector. Since then there has been a proliferation of “lean initiatives” often focussing on the adoption of tools and techniques intrinsic to the

Module Summary	
	<p>Toyota Production System and occasionally seeking to apply “lean thinking” to processes and sectors outside of the “medium variety / low order size” manufacturing environment typical of the auto motive sector. The driving force behind these “initiatives” is often to reduce the cost base through the removal of waste.</p> <p>The latest thinking, however, is that it is insufficient to “lean out” isolated parts of the organisation and a supply chain view, which includes suppliers and customers, should be taken (a “lean” enterprise) with a different approach to supplier relationship management.</p> <p>This module examines the principles, techniques, key tools of “Lean” and how they might apply in a variety of processes and sectors. The strategic importance of creating “lean enterprise” is explored as well as the challenges associated with achieving and sustaining this.</p>
8. Principal Learning Outcomes	<p>On successful completion of the module, students should be able to:</p> <p>Compare and discuss the pros and cons of a Lean approach with non-lean approaches in one or more sectors.</p> <p>Select appropriate tools and techniques to support the design and management of lean operations.</p> <p>Develop Lean concepts for new or existing operations.</p> <p>Critically evaluate how “Lean Thinking” challenges the management and leadership of operations within and between business partners.</p>
9. Timetabled Teaching Activities (summary)	<p>The Evolution of Lean</p> <p>Framework for Lean Thinking</p> <p>Extending Lean to the enterprise level</p> <p>Illustrations of “Lean” in different sectors</p> <p>Lean implementation</p> <p>Tools and techniques</p>
10. Departmental Web-link	TBC
11. Other essential notes	

Module Summary

12. Assessment methods (summary)

Post Module Assignment of approximately 3,500 words. Students will be required to examine a relevant organisational situation or practice, undertake an analysis, apply theory and concepts from the background academic literature, compare best practice approaches to addressing issues and challenges, and make recommendations as to the applicability and likely efficacy of such approaches within the assignment context. This will constitute 100% of total assessment.

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Level	JACS3 Code	Teaching Split
		<i>If not provided in 3b above</i>

External Credit Level		Scheme	

Module Context				
13. Please list all departments involved in the teaching of this module. If taught by more than one department, please indicate percentage split.				
WMG				
14. Availability of module				
Degree Code	Title	Study Year	C/OC/A/B/C	Credits
TWMA-H1NB	International Trade, Strategy and Operations	1	Option	10
TESS-H1PU	International Technology Management	1	Option	10
TESS-H1PS	Engineering Business Management (Singapore)	1	Option	10
TWMS-H7A1	Supply Chain and Logistics Management (Singapore)	1	Option	10
TWMS-H7B4	Programme and Project Management (Singapore)	1	Option	10
15. Minimum number of registered students required for module to run				
12				
16. Pre- and Post-Requisite Modules				
N/A				

Module Content and Teaching	
17. Teaching and Learning Activities <i>(totals for module – please see guidance)</i>	
Module duration (weeks)	1
Lectures	25 hours
Seminars	
Tutorials	
Project Supervision	
Demonstration	
Practical Class/Workshops	10 hours
Supervised time in studio/workshop	
Fieldwork	
External visits	
Work based learning	
Placement	
Year abroad	

Module Content and Teaching		
Other activity <i>(please describe): e.g. distance-learning, intensive weekend teaching etc.</i>	5 to 10 hours pre-reading of prepared materials/texts using web-based content, activities and self-assessment quizzes. 55 to 60 hours self-study leading to post module assignment	
18. Assessment Method (Standard)		
Type of assessment	Length	% weighting
Written Examinations	Hours	
Practical Examinations	Hours	
Assessed essays/coursework	Words 3,500	100%
18a. Final chronological assessment <i>(please see guidance)</i>	Marks returned as a single mark, following submission of Post Module Assignment.	

19. Methods for providing feedback on assessment.
<p>Immediate oral feedback will be provided after exercises and games that will focus on formative feedback to correct misunderstanding and highlight good insights and solutions. Feedback will also be provided to any questions which arise from students with the lecture session.</p> <p>Written feedback of approximately 150-250 words comprising mark-up of original document and completion of a rubric based on the assessment criteria will be provided for the Post-Module Assignment within a four week period after the date of submission. This feedback will be focussed upon the strengths and weaknesses of the work with regard to the module learning objectives and the post-module assignment marking guidelines. Suggestions for improvement will also be provided.</p>
20. Outline Syllabus
<p>The Evolution of Lean</p> <p>Framework for Lean Thinking</p> <p>Creating a Lean Enterprise</p> <p>Illustrations of Lean in different sectors</p> <p>Lean implementation</p> <p>Lean tools and techniques</p>
21. Illustrative Bibliography
<p>Text books:</p> <p>“Lean Thinking” – Womack, James P., Jones, Daniel T. c2003 – <i>The seminal text within the subject area in that it introduced the five “lean principles” for the first time</i></p>

"The machine that changed the World" – Womack, James P., Jones Daniel T., Roos, Daniel, 2007 – *A very readable book explaining how paradigms have shifted in the automotive sector and how lean is deployed in the Japanese car industry. Outcome of a five year study on the Japanese car industry by MIT*

"Lean Production Simplified: A Plain-Language Guide to the World's Most Powerful Production System", Pascal Dennis, 3rd edition 2015.

"Toyota Kata : Managing People for Improvement, Adaptiveness and Superior results", Rother, M., 2010.

"Lean Solutions" – Womack, James P., Jones, Daniel T. 2005.

"The Toyota Way to Lean Leadership" – Liker, Jeffrey K., & Convis, Gary L., 2012.

"Gemba Kaizen – A commonsense low cost approach to management" – Imai, 1997 – *One of the most authoritative books on the subject. Again, very readable.*

"Lean enterprise value: Insights from MIT's lean aerospace initiative", Murman, Earl M. 2002 – *As with, "The Machine...", this book provides insights into MIT's Lean Aerospace initiative focussing on how "value" has changed in the sector and how the sector is responding.*

"The Toyota Product Development System", Morgan, J. and Liker, J. 2006

"Creating a Lean and Green Business System: Techniques for Improving Profits and Sustainability", Dr's Keivan Zokaei, Hunter Lovins, Andy Wood and Peter Hines. 2013

"Learning to See : Value Stream mapping to create value and eliminate muda", Rother, M., Shook, J., 2003

"Seeing the whole: mapping the extended value system", Jones, Daniel T., Womack, James P. 2002 – *Both over simplified but both are must haves for lean practitioners.*

"Creating mixed model value streams" – Duggan, K., 2002. Productivity Press

22. Learning outcomes

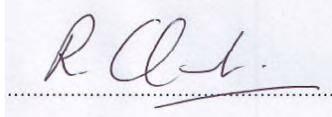
Successful completion of the module leads to the learning outcomes. The learning outcomes identify the knowledge, skills and attributes developed by the module.

Learning Outcomes should be presented in the format "By the end of the module students should be able to..." using the table at the end of the module approval form:

Resources

23. List any additional requirements and indicate the outcome of any discussions about these.

The module resources will be met from existing WMG provision.

Approval	
24. Module leader's signature	
25. Date of approval	09/01/2019
26. Name of Approving Committee (include minute reference if applicable)	Learning and Teaching Committee, January 2019, Chair's Action
27. Chair of Committee's signature	
28. Head of Department(s) signature	

Examination Information		
A1. Name of examiner (if different from module leader)		
A2. Indicate all available methods of assessment in the table below		
% Examined	% Assessed by other methods	Length of examination paper
	100	
A3. Will this module be examined together with any other module (sectioned paper)? If so, please give details below.		
A4. How many papers will the module be examined by?	<input type="checkbox"/> 1 paper <input type="checkbox"/> 2 papers	
A5. When would you wish the exam take place (e.g. Jan, April, Summer)?		
A6. Is reading time required?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
A7. Please specify any special exam timetable arrangements.		
A8. Stationery requirements		
No. of Answer books?		
Graph paper?		
Calculator?		
Any other special stationery requirements (e.g. Data books, tables etc)?		
A9. Type of examination paper		
Seen?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Open Book?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Restricted?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
If restricted, please provide a list of permitted texts:		

LEARNING OUTCOMES		
(By the end of the module the student should be able to....)	Which teaching and learning methods enable students to achieve this learning outcome? (reference activities in section 17)	Which summative assessment method(s) will measure the achievement of this learning outcome? (reference activities in section 18)
Compare and discuss the pros and cons of a Lean approach with non-lean approaches in one or more sectors.	Lectures and discussion.	Post module assignment
Select appropriate tools and techniques to support the design and management of lean operations.	Lectures, small group exercises, role play, case studies and discussion.	Post module assignment
Develop Lean concepts for new or existing operations.	Lectures and small group exercise and/or simulation game	Post module assignment
Critically evaluate how “Lean Thinking” challenges the management and leadership of operations within and between business partners.	Lectures and discussion.	Post module assignment

UNIVERSITY OF WARWICK

Proposal Form for New or Revised Modules (MA1 - version 7 - April 2014)

Approval information	
Approval Type	<input checked="" type="checkbox"/> New module <input type="checkbox"/> Revised module <input type="checkbox"/> Discontinue module
Date of Introduction/Change	2019-20
If new, does this module replace another? If so, enter module code and title:	No
If revised/discontinued, please outline the rationale for the changes:	N/A
Confirmation that affected departments have been consulted:	N/A

Module Summary	
1. Module Code (if known)	WM951-15
2. Module Title	Technology Management
3a. Lead department:	WMG
3b. Teaching Split (if known):	100% WMG
4. Name of module leader	Dr Angela Clarke
5. Level	UG: <input type="checkbox"/> Level 4 (Certificate) <input type="checkbox"/> Level 5 (Intermediate) <input type="checkbox"/> Level 6 (Honours) PG: <input checked="" type="checkbox"/> Level 7 (Masters) <input type="checkbox"/> Level 8 (Doctoral) See Guidance Notes for relationship to years of study
6. Credit value(s) (CATS)	15
7. Principal Module Aims	The module aims to provide an appreciation of the role that technology plays in business. It integrates knowledge and leading edge thinking on the topic and offers insights into how technology is managed in industry, with relevant case studies and simulations to embed the learning. From finding the right technologies to implementing and exploiting them, the module provides useful insights to help current and future managers and technologists.

Module Summary	
8. Principal Learning Outcomes	<p>On completion, learners should be able to:</p> <ul style="list-style-type: none"> • Conclude how technology can best be integrated in pursuit of commercial success • Consider and explain how to influence decision makers when making a case for technology investment • Critically examine the technological competence of a business • Assess a business' technology need and design an approach for accessing and implementing required technologies • Critically evaluate and apply tools & techniques necessary to identify and deliver technological change at an acceptable risk.
9. Timetabled Teaching Activities (summary)	50 hours, face to face. This will be split into lectures, seminars, practical sessions, demonstrations, breakout sessions, external visits and group work.
10. Departmental Web-link	
11. Other essential notes	
12. Assessment methods (summary)	<p>Students will be required to complete a work-based Post Module Assignment (PMA) of around 4,500-5000 words, and accounting for 70% of the overall mark.</p> <p>2 in-module exercises will be undertaken throughout the module, each integrating several objectives and learning points from the module. These exercises will each contribute to 10% of the overall mark.</p> <p>An assessed self-guided team-based case study activity will be undertaken, accounting for 10% of the overall mark.</p>

For use by Strategic Planning and Analytics Office only - Do not fill in this section

Level	JACS3 Code	Teaching Split
		<i>If not provided in 3b above</i>

External Credit Level		Scheme	

Module Context				
13. Please list all departments involved in the teaching of this module. If taught by more than one department, please indicate percentage split.				
100% WMG				
14. Availability of module				
Degree Code	Title	Study Year	C/OC/A/B/C	Credits
TESS-H1PU	MSc in International Technology Management	N/A	C	15
15. Minimum number of registered students required for module to run				
12				
16. Pre- and Post-Requisite Modules				

Module Content and Teaching	
17. Teaching and Learning Activities (<i>totals for module – please see guidance</i>)	
Module duration (weeks)	1 week, plus additional activities (50 hours 'contact' time)
Lectures	13 sessions (20 hours)
Seminars	10 sessions (15 hours)
Tutorials	10 hours (facilitated) using TEL
Project Supervision	
Demonstration	
Practical Class/Workshops	
Supervised time in studio/workshop	
Fieldwork	
External visits	5 hours (accompanied and facilitated)
Work based learning	
Placement	
Year abroad	
Other activity <i>(please describe): e.g. distance-learning, intensive weekend teaching etc.</i>	10 hours of pre-module work 20 hours of unsupervised group work leading to assessed group assignment 70 hours of self-study leading to individual Post Module Assignment

Module Content and Teaching

18. Assessment Method (Standard)		
Type of assessment	Length	% weighting
Written Examinations	Hours	
Practical Examinations	Hours	
Assessed essays/coursework	4,500-5000 word assignment (70%) 2 x in-module case studies (each worth 10%) Team-based, self-directed assignment worth 10%	70 + 20 + 10
18a. Final chronological assessment (<i>please see guidance</i>)	one consolidated assessment component of 100% only	

19. Methods for providing feedback on assessment.

In class debrief and written performance on simulations;
Written feedback will be provided in a report for all Post Module assignments

20. Outline Syllabus

- Technology definitions & classifications
- Benefits & decision making in technology management
- Technology strategy
- Technology management frameworks
- Technology tools & techniques, including technology road mapping
- Readiness assessments & competency frameworks
- Case studies
- Simulation
- Managed industrial visit

21. Illustrative Bibliography

- Cetindamar, D, R. Phaall and D. Probert - Technology Management: Activities and Tools –Palgrave Macmillan, 2016
- Daim, T.U. T. Oliver, R. Phall., Technology Roadmapping: 3 (World Scientific Series in R&D Management), World Scientific Publishing, 2018
- Phaall R., C. Farrukh , D. Probert - Roadmapping for Strategy and Innovation: Aligning Technology and Markets in a Dynamic World, University of Cambridge, Institute for Manufacturing, 2010
- Moehrle, Martin, Ralf Isenmann and Robert Phaal - Technology Roadmapping for Strategy and Innovation: Charting the Route to Success, Springer Publications, 2013
- Tolfree D. & A. Smith - Roadmapping Emergent Technologies, Matador, 2009
- Ng I., G. Parry, P. Wild and D. McFarlane, Complex Engineering Service Systems: Concepts and Research (Decision Engineering), Springer Publications, 2011
- E. Brynjolfsson and A. McAfee - Second Machine Age: Work, Progress, and Prosperity in a Time of Brilliant Technologies, Norton, 2014

- Petrozzo, D.P. - The Fast Forward MBA in Technology Management, John Wiley & Sons 1998
- Simon, P. - The Next Wave of Technologies: Opportunities from Chaos, John Wiley & Sons, 2010.
- Agarwal, A., Emerging Technology Trends - Frequently Asked Questions: Blockchain, Cryptocurrencies, Artificial Intelligence, Augmented Reality, Smart Homes, Aditi Agarwal Publishing, 2018

22. Learning outcomes

See table at end

Resources

23. List any additional requirements and indicate the outcome of any discussions about these.

Approval

24. Module leader's signature

Angela Cunce

25. Date of approval

28/01/2019

26. Name of Approving Committee (include minute reference if applicable)

Learning and Teaching Committee, March 2019, Chair's Action

27. Chair of Committee's signature

M Jones

28. Head of Department(s) signature

R. A. L.

Examination Information		
A1. Name of examiner (if different from module leader)		
A2. Indicate all available methods of assessment in the table below		
% Examined	% Assessed by other methods	Length of examination paper
NA	100	NA
A3. Will this module be examined together with any other module (sectioned paper)? If so, please give details below.		
A4. How many papers will the module be examined by?	<input type="checkbox"/> 1 paper <input type="checkbox"/> 2 papers	
A5. When would you wish the exam take place (e.g. Jan, April, Summer)?		
A6. Is reading time required?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
A7. Please specify any special exam timetable arrangements.		
A8. Stationery requirements		
No. of Answer books?		
Graph paper?		
Calculator?		
Any other special stationery requirements (e.g. Data books, tables etc)?		
A9. Type of examination paper		
Seen?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Open Book?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Restricted?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
If restricted, please provide a list of permitted texts:		

LEARNING OUTCOMES		
(By the end of the module the student should be able to....)	Which teaching and learning methods enable students to achieve this learning outcome? (reference activities in section 15)	Which summative assessment method(s) will measure the achievement of this learning outcome? (reference activities in section 16)
<ul style="list-style-type: none"> • Conclude how technology can best be integrated in pursuit of commercial success 	Pre-module reading, lectures, discussion, small group syndicate work, and post module assignment	<ul style="list-style-type: none"> • Feedback from discussion, small group syndicate work • Post module assignments
<ul style="list-style-type: none"> • Consider and explain how to influence decision makers when making a case for technology investment 	Lectures, discussion, small group syndicate work, and post module assignment	<ul style="list-style-type: none"> • Feedback from discussion, small group syndicate work • Post module assignments
<ul style="list-style-type: none"> • Critically examine the technological competence of a business 	Pre-module reading, lectures, discussion, small group syndicate work, and post module assignment	<ul style="list-style-type: none"> • Feedback from discussion, small group syndicate work • Post module assignments
<ul style="list-style-type: none"> • Assess a business' technology needs and design an approach for accessing and implementing required technologies 	Lectures, discussion, small group syndicate work, in module assessment and post module assignment	<ul style="list-style-type: none"> • Feedback from discussion, small group syndicate work, case study analysis • Post module assignments
<ul style="list-style-type: none"> • Critically evaluate and apply tools & techniques necessary to identify and deliver technological change at an acceptable risk. 	Lectures, discussion, small group syndicate work, in module assessment and post module assignment	<ul style="list-style-type: none"> • Feedback from discussion, small group syndicate work • Post module assignments

UNIVERSITY OF WARWICK

Proposal Form for New or Revised Modules (MA1 - version 7 - April 2014)

Approval information	
Approval Type	<input type="checkbox"/> New module <input checked="" type="checkbox"/> Revised module <input type="checkbox"/> Discontinue module
Date of Introduction/Change	2019/20
If new, does this module replace another? If so, enter module code and title:	Existing Module
If revised/discontinued, please outline the rationale for the changes:	Expanded from 10 credits to 15 credits
Confirmation that affected departments have been consulted:	n/a

Module Summary	
1. Module Code (if known)	ES919-15
2. Module Title	eBusiness Fundamentals (eBF)
3a. Lead department:	WMG
3b. Teaching Split (if known):	
4. Name of module leader	Margaret Low
5. Level	UG: <input type="checkbox"/> Level 4 (Certificate) <input type="checkbox"/> Level 5 (Intermediate) <input type="checkbox"/> Level 6 (Honours) PG: <input checked="" type="checkbox"/> Level 7 (Masters) <input type="checkbox"/> Level 8 (Doctoral) See Guidance Notes for relationship to years of study
6. Credit value(s) (CATS)	15
7. Principal Module Aims	<p>The module addresses accelerating change and competitiveness in a client-driven environment, the use of ever more sophisticated IT and emerging lifestyles whilst maintaining robust core business values and commercial and operational integrity.</p> <p>This module allows the participants to examine the impact of eBusiness techniques on individual organisations, and it provides a</p>

Module Summary

structure within which delegates are able to place learning from subsequent specialist modules in context.

It enables delegates to approach the use of developing electronic technologies for business management from a new perspective. In the past the use of communication has been used as an enabler to enhance business practice. In this module participants will consider the eBusiness and eCommerce techniques as a structural core around which traditional business processes can be mapped, thus providing organisations with the potential for massive improvement in the way in which their enterprises are managed.

Alongside shared content, which focuses on the fundamentals of eBusiness practice across the full breadth of its applications, participants will also cover a set of topics and activities focusing on a pre-selected specialism. These specialisms allow a focus on specific applications and industries relevant to the specialism, but across a set of shared themes that are covered in all specialisms. In other words, all participants cover the same themes, but for some of these the context in which they are covered varies based on specialism.

The module incorporates two group-based, in-module projects that participants will engage in. The first is an industry consultancy project where participants are required to evaluate the impact of eBusiness technologies (related to their specialism) on that industry, as well as to evaluate potential future changes. The second is the creation of a Wiki section (online, collaboratively-built web pages) to publish their research on a topic linked to their specialisation. The first project is assessed via presentation, and the second on the content produced (the Wiki) and a reflection exercise (marks are attributed to the post module assignment component of 85%).

8. Principal Learning Outcomes

- Demonstrate a comprehensive understanding of the key drivers and uses of eBusiness technology in organisations.
- Critically evaluate specific eBusiness technologies and techniques, and assess their impact upon existing business models.
- Critically evaluate new opportunities to support and optimise business processes using eBusiness technologies and methodologies.
- Interpret and evaluate complex organisational problems and requirements
- Apply advanced and cutting-edge online technologies for collaboration and to produce and publish research outputs.

Module Summary	
9. Timetabled Teaching Activities (summary)	42 Hours face to face
10. Departmental Web-link	https://warwick.ac.uk/fac/sci/wmg/education/wmgmasters/structure/modules/ebf/
11. Other essential notes	None.
12. Assessment methods (summary)	Assessment is by in-module group work (15%), and post module assignment (85%).

For use by Strategic Planning and Analytics Office only - Do not fill in this section

Level	JACS3 Code	Teaching Split
		<i>If not provided in 3b above</i>

External Credit Level		Scheme	

Module Content and Teaching		
Written Examinations	0 Hours	0
Practical Examinations	0 Hours	0
Assessed essays/coursework	6000 words Post Module Assignment. In-module Assignment (presentations)	85% 15%
18a. Final chronological assessment (<i>please see guidance</i>)	One assessment component of 100% only.	

19. Methods for providing feedback on assessment.

For post module work – individual feedback on PMA.

20. Outline Syllabus

- eBusiness Core Concepts
 - Key Topics in eBusiness
 - Research Themes in eBusiness
- Management of eBusiness
 - Information Systems
 - International eBusiness
 - eBusiness Security
 - eSupply Chain Management
- eBusiness Applications
 - Digital Marketing
 - Knowledge Management
 - Big Data and Data Science
 - eTransformation and Collaboration
- Specialisms
 - Current Trends
 - Case Studies
 - Data Analysis Methods
 - Applications
 - Management Issues
 - Industry Consultancy Projects
- Collaborative work
 - Building and editing a wiki website.

21. Illustrative Bibliography

Chaffey D (2014). *Digital Business and E-Commerce Management*. Pearson: Harlow, UK. ISBN-13: 978-0273786542.

Jelassi T, Enders A and Martínez-López FJ (2014). *Strategies for e-Business: Creating value through electronic and mobile commerce*. Pearson: Harlow, UK. ISBN-13: 978-0273757870.

Kaufman A and Horton C (2015). *Digital Marketing: Integrating strategy and tactics with values; a guidebook for executives, managers, and students*. Routledge: New York, NY; and London, UK. ISBN-13: 978-0415716741.

Kim G, Behr K and Spafford G (2013). *The Phoenix Project: A novel about IT, DevOps, and helping your business win*. IT Revolution Press. ISBN-13: 978-0988262591

Laudon KC and Traver CG (2016). *E-commerce 2016: Business, technology, society*. Pearson: Harlow, UK. ISBN-13: 978-1292109961.

Mayer-Schönberger V and Cukier K (2013). *Big Data – A Revolution That Will Transform How We Live, Think and Work*. John Murray: London, UK. ISBN-13: 978-184854790

Meier A and Stormer H (2009). *eBusiness & eCommerce: Managing the digital value chain*. Springer: Berlin, DE and London, UK. ISBN-13 978-3540893288.

Reis E (2011). *The Lean Startup: How constant innovation creates radically successful businesses*. Penguin: London, UK. ISBN-13: 978-0670921607

Turban E, Outland J, King D, Lee J, Liang T and Turban D (2018). *Electronic Commerce 2018: A managerial and social networks perspective*. Springer: Cham, CH. ISBN-13: 978-3319587141.

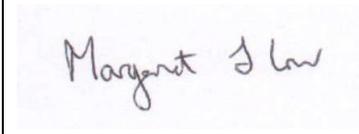
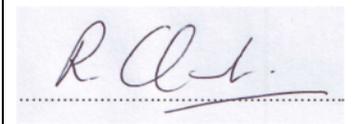
22. Learning outcomes

- Demonstrate a comprehensive understanding of the key drivers and uses of eBusiness technology in organisations.
- Critically evaluate specific eBusiness technologies and techniques, and assess their impact upon existing business models.
- Critically evaluate new opportunities to support and optimise business processes using eBusiness technologies and methodologies.
- Interpret and evaluate complex organisational problems and requirements
- Apply advanced and cutting-edge online technologies for collaboration and to produce and publish research outputs.

Resources

23. List any additional requirements and indicate the outcome of any discussions about these.

No additional requirements

Approval	
24. Module leader's signature	
25. Date of approval	15.02.2019
26. Name of Approving Committee (include minute reference if applicable)	Learning and Teaching Committee, March 2019, Chair's Action
27. Chair of Committee's signature	
28. Head of Department(s) signature	

Examination Information		
A1. Name of examiner (if different from module leader)		
A2. Indicate all available methods of assessment in the table below		
% Examined	% Assessed by other methods	Length of examination paper
	100%	
A3. Will this module be examined together with any other module (sectioned paper)? If so, please give details below.		
A4. How many papers will the module be examined by?	<input type="checkbox"/> 1 paper <input type="checkbox"/> 2 papers	
A5. When would you wish the exam take place (e.g. Jan, April, Summer)?		
A6. Is reading time required?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
A7. Please specify any special exam timetable arrangements.		
A8. Stationery requirements		
No. of Answer books?		
Graph paper?		
Calculator?		
Any other special stationery requirements (e.g. Data books, tables etc)?		
A9. Type of examination paper		
Seen?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Open Book?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Restricted?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
If restricted, please provide a list of permitted texts:		

LEARNING OUTCOMES		
(By the end of the module the student should be able to....)	Which teaching and learning methods enable students to achieve this learning outcome? (reference activities in section 17)	Which summative assessment method(s) will measure the achievement of this learning outcome? (reference activities in section 18)
L1. Demonstrate a comprehensive understanding of the key drivers and uses of eBusiness technology in organisations.	Lectures Seminars Online collaborative activity	Post Module Assignment In-Module Assignment
L2. Critically evaluate specific eBusiness technologies and techniques, and assess their impact upon existing business models.	Lectures Seminars Online collaborative activity	Post Module Assignment In-Module Assignment
L3. Critically evaluate new opportunities to support and optimise business processes using eBusiness technologies and methodologies.	Lectures Seminars	Post Module Assignment In-Module Assignment
L4. Interpret and evaluate complex organisational problems and requirements	Lectures Seminars	Post Module Assignment
L5. Apply advanced and cutting-edge online technologies for collaboration and to produce and publish research outputs.	Online collaborative activity	Post Module Assignment

UNIVERSITY OF WARWICK

Proposal Form for New or Revised Modules (MA1 - version 7 - April 2014)

Approval information	
Approval Type	<input type="checkbox"/> New module <input checked="" type="checkbox"/> Revised module <input type="checkbox"/> Discontinue module
Date of Introduction/Change	01/09/2019
If new, does this module replace another? If so, enter module code and title:	No
If revised/discontinued, please outline the rationale for the changes:	Introducing an In-Module Assessment (IMA) in order to encourage small group working, greater classroom interaction and to confirm understanding at the end of the module. No other aspects of the module have been changed.
Confirmation that affected departments have been consulted:	No other departments affected

Module Summary	
1. Module Code (if known)	WM 326-15
2. Module Title	Functional Systems
3a. Lead department:	WMG
3b. Teaching Split (if known):	100% WMG
4. Name of module leader	David Wright
5. Level	UG: <input type="checkbox"/> Level 4 (Certificate) <input type="checkbox"/> Level 5 (Intermediate) <input checked="" type="checkbox"/> Level 6 (Honours) PG: <input type="checkbox"/> Level 7 (Masters) <input type="checkbox"/> Level 8 (Doctoral) See Guidance Notes for relationship to years of study
6. Credit value(s) (CATS)	15

Module Summary

7. Principal Module Aims

This module will continue to further develop a student's understanding and application of systems engineering (SE) from the basic introduction provided in the second year module Engineering Systems (WM204). This will extend the coverage of SE to include the whole system life-cycle and seek to develop the student's ability to apply the techniques of SE to real-life problems. The module will further develop Concept Development (discussed in WM204) by describing the early stages of the system life cycle in which a need for a new system is demonstrated, its requirements identified, alternative implementations developed, and key program and technical decisions made. Engineering Development will then be covered and will describe the later stages of the system life cycle, in which the system building blocks are engineered (to include both software and hardware subsystems) and the total system is integrated and evaluated in an operational environment. The role of SE in Post-development, (describing the roles of SE in production, operation and support phases of the system life cycle) and what domain knowledge of these phases a systems engineer should acquire, will be identified and developed through the use of examples.

8. Principal Learning Outcomes

By the end of the module students should be able to.

- Apply Systems Engineering (SE) models and techniques to complex problem situations in order to clearly articulate and respond to a customer's need.
- Model a solution that meets the customer's need using methods that do not restrict that solution to a particular discipline or technology.
- Select a solution that meets the customer's need from a number of potential alternatives, giving due consideration to relevant physical, environmental and resource constraints.
- Assess the impact of trade-off decisions with respect to the viability of the proposed solutions.
- Explain how lifecycle models can be used to plan the design, development and support of a complex system throughout its life.
- Describe the role of SE in production, operation and support phases of the system life cycle.
- Outline the domain knowledge required to guide each stage of the lifecycle of a system.

9. Timetabled Teaching Activities (summary)

Normally as follows:

35 hours of teaching including classroom lectures, discussions/seminars and small group exercises (single week module)

Module Summary	
10. Departmental Web-link	http://www2.warwick.ac.uk/fac/sci/wmg/education/prof-ed/undergraduate/aep/
11. Other essential notes	None
12. Assessment methods (summary)	This module is assessed by post-module assessment (85%) and by in-module assessment (15%).

For use by Strategic Planning and Analytics Office only - Do not fill in this section

Level	JACS3 Code	Teaching Split
		<i>If not provided in 3b above</i>

External Credit Level		Scheme	

Module Context				
13. Please list all departments involved in the teaching of this module. If taught by more than one department, please indicate percentage split.				
WMG				
14. Availability of module				
Degree Code	Title	Study Year	C/OC/A/B/C	Credits
H7B1	Applied Engineering	3 or 4	C	15
H7BC	Applied Engineering (Business)	3 or 4	O	15
H7BA	Applied Engineering (Manufacturing	3 or 4	O	15
H7BB	Systems)			
	Applied Engineering (Product Creation)	3 or 4	O	15
H7BD	Applied Engineering (Rail)	3 or 4	O	15
15. Minimum number of registered students required for module to run				
15				
16. Pre- and Post-Requisite Modules				
WM204-15				

Module Content and Teaching	
17. Teaching and Learning Activities (<i>totals for module – please see guidance</i>)	
Module duration (weeks)	1
Lectures	15
Seminars	5
Tutorials	
Project Supervision	
Demonstration	
Practical Class/Workshops	
Supervised time in studio/workshop	15
Fieldwork	
External visits	
Work based learning	
Placement	
Year abroad	
Other activity (<i>please describe</i>): e.g. distance-learning, intensive weekend teaching etc.	115 hours of self-guided including;

Module Content and Teaching

	The Post-Module Assignment (PMA) and additional support and learning material provided via VLE (recommended reading, supplementary notes for classroom activities, recommended Internet-based resources, discussion forums)	
18. Assessment Method (Standard)		
Type of assessment	Length	% weighting
Written Examinations	0 Hours	
Practical Examinations	0 Hours	
Assessed essays/coursework	PMA (coursework, equivalent to 2500 Words)	85
	IMA (group presentation, equivalent to 1000 words)	15
18a. Final chronological assessment (<i>please see guidance</i>)	One assessment component of 100% only	

19. Methods for providing feedback on assessment.

Written feedback for summative assessment (PMA and any materials submitted in connection with IMA) will be issued via Virtual Learning Environment (Moodle, Tabula and/or Turnitin).
 Verbal feedback for summative assessment (IMA) will be given in class.
 Verbal feedback for formative assessment will be given in class.

20. Outline Syllabus

The module will consist of activities exploring the following topics:

- Introduction to Functional Systems
- System Concepts
- Soft Systems Methodology
- Hard Systems Analysis
- System Lifecycles
- Engineering Development
- Post-development and Support

21. Illustrative Bibliography

- Blanchard, B.S. (2008) System engineering management, 4th ed. Hoboken, N.J. : John Wiley & Sons, Inc. ISBN: 9780470167359
- Checkland, P. and Scholes, J. (1999) Soft Systems Methodology in Action. Chichester: John Wiley & Sons Ltd. ISBN: 0471986054 (pbk)
- Hitchins, D.K. (2007) Systems engineering: a 21st century systems methodology. Hoboken, NJ : John Wiley & Sons, Inc. ISBN: 9780470518762

- Holt, J. (2004) UML for systems engineering: watching the wheels. Stevenage: The Institution of Electrical Engineers. ISBN: 9780863413544
- Walden, D.D., Roedler, G.J., Forsberg, K., Hamelin, R.D. and Shortell, T.M. ed. (2015) INCOSE Systems Engineering Handbook, 4th ed. Hoboken: John Wiley & Sons, Inc. ISBN: 9781118999400
- Kossiakoff, A., Sweet, W.N., Seymour, S.J. and Biemer, S.M. (2011) Systems Engineering: Principles and Practice, 2nd ed. Hoboken: John Wiley & Sons, Inc. ISBN: 9780470405482
- Wasson, C.S. (2006) System analysis, design, and development: concepts, principles, and practices. [online] Hoboken, N.J. : Wiley-Interscience. ISBN: 9780471728245

22. Learning outcomes

By the end of the module students should be able to.

[Learning outcomes as shown elsewhere in this document]

Resources

23. List any additional requirements and indicate the outcome of any discussions about these.

No additional requirements

Approval

24. Module leader's signature



25. Date of approval

03/04/2019

26. Name of Approving Committee (include minute reference if applicable)

Learning and Teaching Committee, May 2019, Chair's Action

27. Chair of Committee's signature



28. Head of Department(s) signature



Examination Information		
A1. Name of examiner (if different from module leader)		
A2. Indicate all available methods of assessment in the table below		
% Examined	% Assessed by other methods	Length of examination paper
	100	
A3. Will this module be examined together with any other module (sectioned paper)? If so, please give details below.		
No		
A4. How many papers will the module be examined by?	<input type="checkbox"/> 1 paper	<input type="checkbox"/> 2 papers
A5. When would you wish the exam take place (e.g. Jan, April, Summer)?		
A6. Is reading time required?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
A7. Please specify any special exam timetable arrangements.		
A8. Stationery requirements		
No. of Answer books?		
Graph paper?		
Calculator?		
Any other special stationery requirements (e.g. Data books, tables etc)?		
A9. Type of examination paper		
Seen?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Open Book?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Restricted?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
If restricted, please provide a list of permitted texts:		

LEARNING OUTCOMES		
(By the end of the module the student should be able to....)	Which teaching and learning methods enable students to achieve this learning outcome? (reference activities in section 17)	Which summative assessment method(s) will measure the achievement of this learning outcome? (reference activities in section 18)
Apply Systems Engineering (SE) models and techniques to complex problem situations in order to clearly articulate and respond to a customer's need.	Classroom lectures, discussions/seminars, small group exercises, TEL	Assessed essays/coursework/presentations
Model a solution that meets the customer's need using methods that do not restrict that solution to a particular discipline or technology.	Classroom lectures, discussions/seminars, small group exercises, TEL	Assessed essays/coursework/presentations
Select a solution that meets the customer's need from a number of potential alternatives, giving due consideration to relevant physical, environmental and resource constraints.	Classroom lectures, discussions/seminars, small group exercises, TEL	Assessed essays/coursework/presentations
Assess the impact of trade-off decisions with respect to the viability of the proposed solutions.	Classroom lectures, discussions/seminars, small group exercises, TEL	Assessed essays/coursework/presentations
Explain how lifecycle models can be used to plan the design, development and support of a complex system throughout its life.	Classroom lectures, discussions/seminars, small group exercises, TEL	Assessed essays/coursework
Describe the role of SE in production, operation and support phases of the system life cycle.	Classroom lectures, discussions/seminars, small group exercises, TEL	Assessed essays/coursework
Outline the domain knowledge required to guide each stage of the lifecycle of a system.	Classroom lectures, discussions/seminars, small group exercises, TEL	Assessed essays/coursework

WMG Learning and Teaching Committee (LTC)
Minutes for the meeting
held on 20th September 2018 at 12.00 in IMC109

Non-reserved papers to be accessed via the Sharepoint site

Reserved papers (c.f. reserved agenda) to be accessed via files.warwick

1. Attendance

Name	Role	Review pair	Initials	Attendance
Jeff Jones	Chair	0: JJ/AHC	JJ	Present
Liubov Lobanova	Secretary	n/a	LL	Present
Members:				
Ahmed Er	Director of Full Time Programmes	2: AE/HEN	AE	Present
Amy Collins	Academic Quality Officer	0: JJ/AHC	AHC	Present
Gareth Taylor	Professional & Executive Programmes Manager	5: GT/ISC	GT	Present
Graeme Knowles	Convener of the Pedagogic Interest Group	1: GK/KN	GK	Apologies
Helen Neal	PGT Exam Board Secretary	2: AE/HEN	HEN	Present
Kevin Neailey	Director of Undergraduate Studies (Quality & Governance)	1: GK/KN	KN	Present
Maddie Langeveld	Head of Administration (Teaching and Learning)	3: MGL/JMN	MGL	Apologies
Martyn Pinfold	Full Time Programmes Manager	4: MP/RC	MP	Apologies
Mathew Jones	Deputy Director of UG Programmes		MJ	Present
Mike Newton	Director of Overseas Programmes	3: MGL/JMN	JMN	Apologies
Robin Clark	Associate Director of Postgraduate Programmes	4: MP/RC	RC	Expected 2pm
Shaheen Charlwood	UG Teaching and Learning Manager	5: GT/ISC	ISC	Apologies
Meera Maheswaran	Student representative, PGT	n/a	MM	Apologies
Hamdi Hmani	Student representative, PGT	n/a	HH	Apologies
Simon FitzGerald	Student representative, UG	n/a	SF	Apologies
In Attendance:				
Jonathon Hunt	Assessment Coordinator	n/a	JH	Present

1.1. Review of LTC Membership

Noted that Shaheen Charlwood will not be a member of LTC this academic year and the student representatives would be replaced.

Action: GT to find student representatives for 2018/19 academic year.

LTC membership was discussed. The proposal to exclude members from the membership for a non-attendance of a two (or more) consequent committee meetings was made, however it was agreed that we would look into members' contribution over the year instead. LTC supported the view that it would be a good practice for members who are unable to attend the meeting to delegate attendance to an appropriate colleague or to send written updates to the secretary of the committee prior to the meeting. LTC agreed that the membership of the committee would be reviewed annually.

Action: AHC to invite India Palmer, Teaching and Learning Officer, to be a new member of LTC for 2018/19.

2. Minutes of Last Meeting

2.1. *Last meeting of the Learning and Teaching Committee (available at <https://warwick.ac.uk/fac/sci/wmq/intranet/info/governance/wmqcommittees/ltc/tlc-minutes/>)*

The minutes were accepted as a true and accurate record.

3. Matters Arising from Minutes and Previous Cascade Points

3.1. *Actions out of 7th August 2018 meeting*

Person Responsible	Action	Status
Graeme Knowles	Ask PIG to consider relationship between number of words in assignment and percentage of assessment that assignment comprises	Ongoing
Maddie Langeveld	To reform the role descriptions working group with the addition of AHC to its membership; with a new remit to identify which members of WMG staff are representing us on University committees and to whom they should be cascading information from those committees; to write a policy; to add the cascading of the information to the relevant role descriptions	Complete
All Members	Members to send their comments relating to what needs adding in the Handbook and who might be responsible for which areas to AHC	Complete
Jeff Jones	To build query in SITS-ad-hoc-queries database in order to check supervisory experience of past WMG staff applying to be external supervisors	Ongoing
Jeff Jones	To book a new meeting for Exam Board Processes Working Group	Complete
Jeff Jones	To book a new meeting for External Examiners Reports Review Working Group	Complete
Martyn Pinfold	To book a new meeting for Plagiarism Process Working Group in Oct 2018, once the dissertations had been marked in Sept 2018	Ongoing
Kevin Neailey	To book a new meeting for KN/RC/MGL to discuss the Cyber audit	Ongoing
Amy Collins/ Jeff Jones	To trial the task-and-finish group process with NP's pre-masters paperwork and to further discuss logistics and processes for such groups with JJ	Complete
Liubov Lobanova	LL to ensure that an appointment of the task-and-finish group for MSc Cyber Security Engineering programme is included into Sep-18 LTC agenda	Complete
Graeme Knowles	GK to report the progress made on Review of Pedagogic Initiatives and TEL Processes to the next LTC meeting	Ongoing

Amy Collins	AHC to make the suggested changes to the document 8.3.2 and publish the final versions of the following documents - Authorisation of module exemptions for students (Academic guidance), Course Regulations Change Request Form and Guidance on Course Regulations	Complete
Robin Clark	RC to finalise the Annual Course Review process document	Ongoing
Robin Clark	RC to form a working group to work on dissertations review process	Ongoing
Jeff Jones	JJ to produce External Examiner Assessment Approval Form;	Complete
Helen Neal/Jeff Jones	HEN and JJ to do a shortlist for potential new external examiners	Complete
Amy Collins	AHC to make details of the numbering systems for all WMG teaching quality document and a document log available on website	Ongoing
Lee Griffin	Lee Griffin form a working group do discuss 2nd marking process	Complete
Liubov Lobanova	LL to add a standing item into the LTC Agenda – updates from T&F groups	Complete
Amy Collins	AHC to include a composition of T&F group in the guidance document.	Ongoing
Robin Clark	RC to set up T&F group for the Design Thinking module	Complete
Robin Clark	RC to ask Catherine Gordon to include the discussion about Ethics Approval into OEG Agenda.	Ongoing

3.2. *Other matters arising*

4. Chairman's Actions since Last Meeting

Action	Item	Level	Approved by		Minute reference	Other notes
			Chair	Head of Education		
Approval	Revised Modules: <ul style="list-style-type: none"> - Quality, Reliability and Maintenance - eBusiness Fundamentals - Supply Chain Management - Finance for e-business - International Trade 	PGT PGT PGT PGT PGT	JJ JJ JJ JJ JJ	RC RC RC RC RC	NA	Revised due to missing MA1 form and to ensure correct Masters level Vocabulary used
Approval	Revised Module: <ul style="list-style-type: none"> - Performance Evaluation & Control 	PGT	JJ	RC	NA	The online test has been removed and replaced with work-based learning in two phases
Approval	Revised Course: <ul style="list-style-type: none"> - The (part-time) Applied Engineering Programme (AEP) 	UG	JJ	KN	NA	A change to the AEP work-based projects from a 15 credit project in each of years 3 and 4 to a single 30 credit project in year 4.
Approval	New Course: <ul style="list-style-type: none"> - North China University of Technology (NCUT) Pre-Masters Programme 		JJ		Jul-18 LTC, Item 6.4	This programme has been designed and will be run by NCUT. The programme will be an approved entry qualification for WMG Full-time Masters Programmes in the UK.
Approval	Revised Course Regulations: <ul style="list-style-type: none"> - Engineering Business Management (FT) 	PGT	JJ		NA	Removal of one optional module (SM)

JJ reported that several MA1 forms were approved as Chair's Action for the modules with previously missing or outdated MA1 forms. This was triggered by the new assessment approval process. It was noted that JJ couldn't approve MA1 for the Asset Management module via Chair's Action as it was one of his own modules. It was agreed that LTC need to appoint the Deputy Chair to give more flexibility to the committee.

Action: JJ to ask JMN to be a Deputy Chair for LTC

Secretary's Note: subsequent to meeting but before minutes were completed, JMN agreed to be a Deputy Chair for LTC.

Action: AHC to set up a group to prepare NCUT & BCU letters

5. Annual Review of Academic Quality Processes

5.1. *Process for Approval of external project supervisors via Triage (due August 2019)*

Not due yet.

5.2. *Process for dealing with suspected plagiarism in modules (due September 2018)*

MP not present, therefore will be reported at the next meeting.

Action: AHC to present the paper for process for dealing with suspected plagiarism in modules for an annual review of at the next LTC meeting

5.3. *Process for approval of supervisor workload via Triage (due September 2018)*

Action: AHC to liaise with Tanya Carey about the process for approval of supervisor workload via Triage and to report at the next LTC meeting

5.4. *Process for Approval of Module Owners, Tutors, Markers and Course leaders (due 1 year after formalisation)*

5.5. *Process for annual assessment of courses (due 1 year after formalisation)*

5.6. *Process for annual assessment of modules (due 1 year after formalisation)*

5.7. *Process for moderation of coursework (due September 2018)*

Revision for the 'Moderation of M-Level coursework' document (paper 5.7.1) was presented and approved by LTC. It was noted that the following clarifications around 2nd marking where there has been a plagiarism outcome have already been proposed:

- Deliberate cheating/severe plagiarism and award zero: No 2nd marking required
- Deliberate cheating/severe plagiarism and tutor to mark: **2nd marking is required**
- Poor academic practice but still passed: No 2nd marking required
- Poor academic practice but failed: **2nd marking is required**

The question was raised if similar guidance were applied to UG work. KN clarified that the guidelines are as similar as possible, however because there are not so many running on UG programmes, on UG programmes we moderated every run.

KN raised a question about '20-day turnaround' as he felt it need to be clarified both to staff and to students:

20 working days are starting from the day of the submission; marking staff do not have 20 working days to do the marking as sufficient time needs to be allowed for admin processes and this should be clarified in the guidance to staff.

Wider discussion about feedback/marking processes took place. It was agreed that options for an electronic marking should be investigated.

Action: JJ to send the email out to ask for volunteers to form a group to look into an electronic marking options

6. Course & Module Approval

6.1. *New Course Proposals, Revisions & Discontinuation*

There were no new proposals to consider, however it was noted that it would be useful to report the status of previously approved by LTC courses back to LTC.

Action: LL to add a new standing item into the LTC Agenda – Updates on New Course approval (University Level).

KN provided an update on THaWS' course approval. He reported that the course was approved academically, but it was decided to defer student recruitment to the programme to 2019/20 as it was too late for 2018 start.

6.2. New Module Proposals, Revisions & Discontinuation

Min.	Doc type	Level	Module(s)	Submitted by	Paper(s)	Review pair(s) 0: JJ/AHC for all	In-principle approval	Notes	Outcome
6.2.1	Revised MA1	PGT	Programming and Fundamental Algorithms for Scientists and Engineers The proposed changes to LO	Kurt Debattista	6.2.1a 6.2.1b	All All	Not required (revision)	This is a change of title (discussed and agreed by Jul-18 LTC <u>and</u> some changes to LO	Approved subject to changes Agreed that rationale was not very clear. Other comments were put on SharePoint. Agreed to request the proposer to review the paper. Revised paper could then be submitted for an approval by CA
6.2.2	Revised MA1	PGT	Logistics & Operations Management	Karen Bradbury	6.2.2a	All		MA1 form for ES961 Logistics and Operations Management 10-credit module amended to reflect different assessment methods.	Approved subject to changes Comments were put on SharePoint. To Request the proposer to review the paper. Revised paper could then be submitted for an approval by CA

7. Monitor & Review

7.1. Course Reviews

None to consider.

7.2. Module Reviews

None to consider.

7.3. Dissertation Reviews

None to consider.

7.4. Review of Exam Board Processes

None to consider.

7.5. Review of Pedagogic Initiatives and TEL Processes.

No updated available. Will be provided at the next meeting

8. Work in progress (sub-groups)

8.1. Module Role Definitions working group (lead MGL)

Received:

8.1.a_Teaching role outlines working group Explanatory paper

8.1.b_module teaching role outlines3 – presented for an approval

8.1.c_management teaching role outlines – not complete, presented for info only

A summary of discussion of Module Teaching Role Outlines document

- LTC agreed that Module Owners must be internal staff, i.e. Warwick employees.
- LTC noted that the issue with the current external Module Owners should be treated sensitively, prior to the publication of the document.
- Agreed that Module Owners should be LTC approved, but LTC would trust Module Owners to decide on appointments to the lower roles (tutors and markers). All appointments should be done in consultation with HR/Finance. All appointments to be reported to LTC.
- All appointments should be reported to LTC for record.
- LTC agreed that change of Module Owner would lead to a change of MA1 form and therefore should follow the normal process / could be done via Chair's Action; noted that teaching on a different module should go through a separate process
- Module Owner role should include complying with course accreditation in collaboration with course leader
- Module Owner role should include looking into student feedback
- Module Owner role should include directing students to mitigating circumstance, complaints processes, etc.
- In module Tutor/Marker role – to change the wording to 'Ensuring marking returned by deadline', i.e. not specifying in how many days it should be done.

All comments/suggestions were added to the document on SharePoint.

A summary of discussion of Management Teaching Role Outlines document

- Review of resources should it be included in Subject Leader role
- Holistic review view of student feedback should be included in Subject Leader role

- Appeals and complaints – noted that Stage 1 should be a different person from Stage 2 – should it be a Programme Director and a Course Leader? It was noted that currently JJ was dealing with Stage 2 complaints, and Stage 1 were dealt with by administrators, but signed by a Programme Director.
- Programme Manager role needs more clarification. Noted that currently on FT programmes there was an academic (MP) performing this role; on PT programmes there was no separate role for this and on OS programmes there were effectively managers of the different partners.
- It was suggested by RC that we probably need to focus on Subject Leader and Course Leader role descriptions first, and then look into other roles.
- Agreed to include Gareth Taylor into this group.

Action: MGL to include GT into the Module Role Definitions working group

Agreed:

1. Teaching role outlines document was approved subject to the suggested amendments. Noted that a minor adaptation would be needed for UG programmes roles prior to publication.
2. Comments/suggestions were added into the Management Teaching Role Outlines document on the SharePoint for further amendments/development.

Action: LL to add an Annual Review of Module Role Definitions as new standing item into the LTC Agenda, so it can be reviewed regularly, with the next review due in September 2019

8.2. Exam Board Processes working group (lead JJ)

JJ reported that the Group met yesterday, there are three main outcomes:

1. Remedying failure:
The current practice is that we do offer resits opportunity in August, after the project's submission, therefore the University could say is not fair for students, as they need an opportunity to re-sit failed modules as soon as possible. JJ would organise further meetings to discuss remedying failure for modules.

Action: JJ to organise Exam Board Processes group meeting to discuss remedying failure for modules.

2. Ethics decision-making:
JJ reported that one student failed last year due to poor Ethics and there are several students this year with potential problems. JJ reported that we are struggling to generate rules, therefore to start with we need to form an ethics panel and record the decisions. This will naturally happen in preparation for the next exam board since we have a planned ethics panel pre-board.
3. "Downgrades"/RPL: needs a board, much like in-reg module failures

KN reported that newly formed working group was looking into the Ethics Approval process. (DW, GT, KN, TC)

Action: LL to add updates from a new working group - Ethical Approval of Projects - in to LTC Agenda

8.3. Rules for Changing Course Regulations working group (lead JJ)

JJ reported that rules and supporting system was now in place. LTC agreed that this group would disband but would be monitored and if changes needed a new group would be started.

Action: LL to take Rules for Changing Course Regulations working group off LTC Agenda

8.4. External Examiners' Reports review group (lead JJ)

JJ reported that the group would meet 8th October. UG done already – no problems to report.

8.5. Course, module & dissertation reviews (lead RC)

RC reported that PG processes would initially be the main focus of this group and UG processes would be reviewed later.

Action: AHC to ask for volunteers to be included in the dissertation review group (in addition to Tanya Carey, David Wright and Robin Clark) – volunteers to volunteer directly to RC

8.6. Plagiarism process working group (lead MP)

Noted that MP was not present and the update would be provided at the next meeting.

8.7. Cyber programmes audit team (lead KN)

KN reported that a group was formed; this group would review the paperwork and then would meet with the MSc Cyber team.

8.8. Quality handbook team (lead AHC)

AHC reported that comments from LTC members were received via SharePoint. Next step would be to work on the content. It was noted that an initial aim was for the Quality Handbook to be ready for the next academic year, but it would be difficult to achieve. Therefore, it was suggested to identify the riskiest areas to prioritise workload. AHC would be forming the group shortly.

8.9. Moderation process (lead JJ)

Noted that a trail of new online systems had started. This encapsulates the old process. Initial test would be done on a single course with a few moderators.

8.10. PMA approval (lead JJ)

JJ reported that he would need support to review assessments at departmental level. It was agreed that KN and the UG team would look into UG assessments.

Action: JJ to ask for volunteers to help him with PGT assessments

Action: LL to disband PMA approval working group from the LTC Agenda

9. Updates from Task and Finish Groups (TFG)

9.1. MSc Cyber Security Engineering (CSE) programme review (lead TBC)

It was agreed to ask Peter Norris to lead the group. KN will be in this group as LTC person and will report back to LTC.

Action: KN to invite Peter Norris to lead CSE TFG.

9.2. Degree Apprenticeship in Digital & Technology Solutions (DTS) programme (KN)

KN reported that the work was very close to the completion; three CA forms were done, and all comments were addressed; last changes would be sent to JJ for to be approved via Chair's action.

Secretary's Note: DTS has been approved via Chair's Action subsequent to meeting but before minutes were completed.

9.3. Design Thinking Module (lead RC)

RC reported that the meeting was scheduled for this week. Update would be provided at the next LTC.

9.4. NCUT pre-masters (lead JMN)

Approved via Chair's Action

Action: LL to disband NCUT pre-masters working group from the LTC Agenda

9.5. MSc International Technology Management (ITM) programme review and an appointment of the task-and-finish group for this programme (lead TBC)

Action: JJ to ask GK to lead ITM programme review TFG.

10. Issues Arising from the Teaching Excellence and Student Outcomes Framework (TEF)

10.1. TEF working groups and steering committee

RC informed that the University would be running some TEF workshops. They were also looking to run some MOCK TEF in spring. Updates from the workshops would be provided at the next LTC meeting.

11. Respond & Report

11.1. External Examiners Reports

JJ reported that all PGT reports were submitted; they will be looked at by sub-group in October. UG externals have submitted their reports and are positive, with no need for us to note anything.

Two new external examiners were appointed recently:

- Professor Tom Crick, Swansea University
- Professor Steve Brown, Southampton University

We are still waiting to hear about the other two:

- JunFeng Yang, University of Leeds (Automotive),
- Langes Supramaniam, Cardiff Metropolitan University.

Secretary's Note: subsequent to meeting but before minutes were completed, the nomination of Dr L Supramaniam has been approved and the nomination of JunFeng Yang was rejected by a sub-group of the Senate Steering Committee.

Action JJ and HEN to look for a new External Examiner (Automotive Specialist)

11.2. Cascade Points

- A. JMN appointed as a Deputy Chair for LTC
- B. New 2nd marking rules to clarify what happened with plagiarism cases
- C. Teaching role descriptions have been developed and will be available on the web soon.
- D. New web based moderation process, should make moderation and the contact with assessors smoother.
- E. New External examiners appointed – Prof Tom Crick from Swansea, Prof Steve Brown from Southampton and Dr Langes Supramaniam from Cardiff Metropolitan.
- F. FT MSc students will no longer have the option of booking a 10th additional module.

12. Any Other Business

12.1. Plagiarism in Assignments

LTC to ask the programme directors to send out a reminder to all markers/tutors/module owners to do a plagiarism check when marking PMAs during the next academic year.

Action: AHC to write a template email-reminder about plagiarism check when marking PMAs.

RC informed that the University would be looking into Contract Cheating issues.

12.2. *Responsibility for Annual Return of Module Assessment Components to Exams*

LTC was asked to consider which roles (in communication with the Academic Quality team) need to take responsibility for Annual Return of Module Assessment Components to Exams, which is required annually during the summer and to consider an appropriate process by which this should be done. It was noted that the task was previously undertaken by the Academic Director of Graduate Studies and is currently undertaken by the Head of Administration for Teaching and Learning.

It was agreed to invite somebody from UG team to help doing this, but otherwise to leave this process as it currently is.

12.3. *Cessation of 10th module*

JJ reported that WMG would no longer be offering FT MSc students the option of booking a 10th additional module in 18/19 and beyond. It was clarified that this would be the same for PT programmes as well and only OS programmes would be different.

12.4. *Absence Policy*

JJ reported that we need to revisit and to check our rules about absence, to clarify at what level is it a non-attendance, at what level do we give extra work etc., therefore a new working group should be formed.

It was agreed that GT would lead this group from LTC.

Action: GT to form Absence Policy working group

Action: LL to add Absence Policy working group updates into LTC agenda

12.5. *New External Project Supervisors*

It was noted that we should not be setting up anyone new as an external project supervisor for the 2018/19 cohort barring those already approved, as we already have far too many external supervisors (currently there is 218 external supervisors on FT MSc) for one person to manage. Also noted that WMG have a waiting list of potential project supervisors and we're getting some loss, since we are removing some supervisors from the books.

12.6. *Tutors Training Needs for Next Academic Year.*

JJ reported that it was clear from the recent tutors briefing that we need to provide some training as few tutors understand LO etc. To identify the training need we need to form a new working group.

Action: JJ to form and lead tutors training need working group

Action: LL to add Tutors Training Need working group updates into LTC agenda

12.7. *Traceability in Task and Finish Groups (TFGs)*

It was agreed that we need a record of membership, meetings, and notes etc for all TFGs for future reference, therefore we need to put a system in place to do that.

Action: AHC to add a mechanism of capturing feedback from TFGs into TFG's rules document

12.8. *Policy on Publication with MSc students*

It was noted that we need to:

- 1) Write some guidelines to ensure fair treatment, and that Intellectual Property Rights (IPR) etc. is protected.
- 2) Have a way of recording this has happened.

Action: RC to speak to Barbara Shollock about IPR for MSc projects and other research collaborations.

Action: RC to speak to HR about the situations with publications of WMG students' work under external supervisors' names

12.9. *Marking grid for PMA*

It was noted that Marking Grid for PMA need updating as the one that is currently published on WMG website is dated 2008, and the University's equivalent is dated 2015.

Action: JJ to form Marking grid for PMA Working Group and to find a lead person for this group.

Action: LL to add Marking Grid for PMA working group updates into LTC agenda

12.10. *Words used in PMA questions*

JJ asked LTC if anything needs to be done around guidance about the words that should be used in the PMA questions and should a guidance on what the different aspects of questions mean to be provided. It was reported that WMG have asked the centre to look at this, but this would take time.

It was agreed that training for staff and clarification for students was needed. It was noted that University of Leicester link, which was available through Moodle, contained lots of useful information.

Action: JJ to ask Vagelis to look into guidance for staff/students about words which should be used in PMA questions.

12.11. *Declarations in Tabula*

JJ reported that Teaching Quality have confirmed that Tabula had been set up to prevent the need for any other declarations to be included on PMAs, therefore we can scrap using our declarations.

Action: LL to inform FT, PT and OS Teams that WMG can scrap using our declarations as they would be replaced by Tabula's declaration set up.

12.12. *Failed Practical Element in the LO*

JJ reported that we need to establish how we should deal with the modules, where there is a large "practical" element in the learning outcome that may need to be re-done, in a lab for instance, and that can't be left to the end of the year for obvious reasons. It was clarified that this is likely to on SAE, SCAV and future Degree Apprenticeships programmes.

Action: JJ to ask Anthony Allen and Neal Davis to form a TFG to look at how we deal with practice based LO in resubmissions.

12.13. *PhD students who teach*

KN reported that often supervisors do not follow the policy for PhD Students. Matt Jones would be looking into this.

13. Date of Next Meeting

30th October 2018, 12.00-16.00, IMC 109 (Papers Deadline 16th October 2018)

ACTIONS:

Person Responsible	Action	Status
Graeme Knowles	Ask PIG to consider relationship between number of words in assignment and percentage of assessment that assignment comprises	
Jeff Jones	To build query in SITS-ad-hoc-queries database in order to check supervisory experience of past WMG staff applying to be external supervisors	
Martyn Pinfold	To book a new meeting for Plagiarism Process Working Group in Oct 2018, once the dissertations had been marked in Sept 2018.	
Kevin Neailey	To book a new meeting for KN/RC/MGL to discuss the Cyber audit	
Graeme Knowles	GK to report the progress made on Review of Pedagogic Initiatives and TEL Processes to the next LTC meeting	
Robin Clark	RC to finalise the Annual Course Review process document	
Robin Clark	RC to form a working group to work on dissertations review process	
Amy Collins	AHC to make details of the numbering systems for all WMG teaching quality document and a document log available on website	
Amy Collins	AHC to include a composition of T&F group in the guidance document.	
Robin Clark	RC to ask Catherine Gordon to include the discussion about Ethics Approval into OEG Agenda.	
Jeff Jones	JJ to ask JMN to be a Deputy Chair for LTC	Completed
Amy Collins	AHC to set up a group to prepare NCUT & BCU letters	
Amy Collins	AHC to present the paper for process for dealing with suspected plagiarism in modules for an annual review of at the next LTC meeting	
Amy Collins	AHC to liaise with Tanya Carey about the process for approval of supervisor workload via Triage and to report at the next LTC meeting	
Jeff Jones	JJ to send the email out to ask for volunteers to form a group to look into an electronic marking options	
Liubov Lobanova	LL to add a new standing item into the LTC Agenda – Updates on New Course approval (University Level).	

Maddie Langeveld	MGL to include GT into the Module Role Definitions working group	
Liubov Lobanova	LL to add an Annual Review of Module Role Definitions as new standing item into the LTC Agenda, so it can be reviewed regularly, with the next review due in September 2019	
Jeff Jones	JJ to organise Exam Board Processes group meeting to discuss remedying failure for modules	
Liubov Lobanova	LL to add updates from a new working group - Ethical Approval of Projects - in to LTC Agenda	
Liubov Lobanova	LL to take Rules for Changing Course Regulations working group off LTC Agenda	
Amy Collins	AHC to ask for volunteers to be included in the dissertation review group (in addition to Tanya Carey, David Wright and Robin Clark) – volunteers to volunteer directly to RC	
Jeff Jones	JJ to ask for volunteers to help him with PGT assessments	
Liubov Lobanova	LL to disband PMA approval working group from the LTC Agenda	
Kevin Neailey	KN to invite Peter Norris to lead CSE TFG.	
Liubov Lobanova	LL to disband NCUT pre-masters working group from the LTC Agenda	
Jeff Jones	JJ to ask GK to lead ITM programme review TFG.	
Jeff Jones/ Helen Neal	JJ and HEN to look for a new External Examiner (Automotive Specialist)	
Amy Collins	AHC to write a template email-reminder about plagiarism check when marking PMAs.	
Gareth Taylor	GT to form Absence Policy working group	
Liubov Lobanova	LL to add Absence Policy working group updates into LTC agenda	
Jeff Jones	JJ to form and lead tutors training need working group	
Liubov Lobanova	LL to add Tutors Training Need working group updates into LTC agenda	
Amy Collins	AHC to add a mechanism of capturing feedback from TFGs into TFG's rules document	

Robin Clark	RC to speak to Barbara Shollock about IPR for MSc projects and other research collaborations	
Robin Clark	RC to speak to HR about the situations with publications of WMG students' work under external supervisors' names	
Jeff Jones	JJ to form Marking grid for PMA Working Group and to find a lead person for this group.	
Liubov Lobanova	LL to add Marking Grid for PMA working group updates into LTC agenda	
Jeff Jones	JJ to ask Vagelis to look into guidance for staff/students about words which should be used in PMA questions.	
Liubov Lobanova	LL to inform FT, PT and OS Teams that WMG can scrap using our declarations as they would be replaced by Tabula's declaration set up.	
Jeff Jones	JJ to ask Antony Allen and Neal Davis to form a TFG to look at how we deal with practice based LO in resubmissions.	

WMG Learning and Teaching Committee (LTC)
Minutes of the meeting
held on 30th October 2018 at 12.00 in IMC109

1. Attendance

Name	Role	Initials	Attendance
Jeff Jones	Chair	JJ	Present
Liubov Lobanova	Secretary	LL	Apologies
Jonathon Hunt	Deputy Secretary	JH	Present
Members:			
Ahmed Er	Director of Full Time Programmes	AE	Apologies
Amy Collins	Academic Quality Officer	AHC	Present
Gareth Taylor	Professional & Executive Programmes Manager	GT	Present
Graeme Knowles	Convener of the Pedagogic Interest Group	GK	Apologies
Helen Neal	PGT Exam Board Secretary	HEN	Present for item 6.2.4
India Palmer	Teaching and Learning Officer, UG Programmes	IP	Apologies
Kevin Neailey	Director of Undergraduate Studies (Quality & Governance)	KN	Present
Maddie Langeveld	Head of Administration (Teaching and Learning)	MGL	Present
Martyn Pinfold	Full Time Programmes Manager	MP	Present
Mathew Jones	Deputy Director of UG Programmes	MJ	Apologies
Mike Newton	Director of Overseas Programmes	JMN	Apologies
Robin Clark	Associate Director of Postgraduate Programmes	RC	Apologies
TBC	Student representative, PGT	MM	NA
TBC	Student representative, PGT	HH	NA
Simon FitzGerald	Student representative, UG	SF	Apologies
In Attendance:			
Tanya Carey	Academic Administrator	TC	Present to end of item 5

PGT student representatives are not yet in post, it may be worthwhile to seek a new UG student representative as current representative has not attended. Steve Maggs will be able to advise.

2. Minutes of Last Meeting

2.1. Last meeting of the Learning and Teaching Committee (available at <https://warwick.ac.uk/fac/sci/wmq/intranet/info/governance/wmqcommittees/ltc/tlc-minutes/>)

The minutes of the last meeting were accepted as a true record.

3. Matters Arising from Minutes and Previous Cascade Points

3.1. Actions out of 20th September 2018 meeting

Completed actions:

Person Responsible	Action	Status
Robin Clark	RC to ask Catherine Gordon to include the discussion about Ethics Approval into OEG Agenda.	Completed
Robin Clark	RC to finalise the Annual Course Review process document	Completed
Amy Collins	AHC to include a composition of T&F group in the guidance document.	Completed
Amy Collins	AHC to set up a group to prepare NCUT & BCU letters	Completed
Amy Collins	AHC to present the paper for process for dealing with suspected plagiarism in modules for an annual review of at the next LTC meeting	Completed
Amy Collins	AHC to liaise with Tanya Carey about the process for approval of supervisor workload via Triage and to report at the next LTC meeting	Completed
Amy Collins	AHC to ask for volunteers to be included in the dissertation review group (in addition to Tanya Carey, David Wright and Robin Clark) – volunteers to volunteer directly to RC	Completed
Amy Collins	AHC to add a mechanism of capturing feedback from TFGs into TFG's rules document	Completed within meeting
Amy Collins	AHC to write a template email-reminder about plagiarism check when marking PMAs.	Completed
Jeff Jones	JJ to ask JMN to be a Deputy Chair for LTC	Completed
Jeff Jones	JJ to organise Exam Board Processes group meeting to discuss remedying failure for modules	Completed
Jeff Jones	JJ to ask for volunteers to help him with PGT assessments	No longer required
Jeff Jones	JJ to ask GK to lead ITM programme review TFG.	Completed - agreed
Jeff Jones	JJ to form and lead tutors training need working group	Meeting 13 th Dec 2018, MGL to join group
Jeff Jones	JJ to ask Vagelis to look into guidance for staff/students about words, which should be used in PMA questions.	Completed

Jeff Jones	JJ to ask Antony Allen and Neal Davis to form a TFG to look at how we deal with practice based LO in resubmissions.	Completed
Graeme Knowles	Ask PIG to consider relationship between number of words in assignment and percentage of assessment that assignment comprises	Completed
Graeme Knowles	GK to report the progress made on Review of Pedagogic Initiatives and TEL Processes to the next LTC meeting	Completed
Maddie Langeveld	MGL to include GT into the Module Role Definitions working group	Completed
Liubov Lobanova	LL to add a new standing item into the LTC Agenda – Updates on New Course approval (University Level).	Completed
Liubov Lobanova	LL to add updates from a new working group - Ethical Approval of Projects - in to LTC Agenda	Completed
Liubov Lobanova	LL to take Rules for Changing Course Regulations working group off LTC Agenda	Completed
Liubov Lobanova	LL to add an Annual Review of Module Role Definitions as new standing item into the LTC Agenda, so it can be reviewed regularly, with the next review due in September 2019	Completed
Liubov Lobanova	LL to disband PMA approval working group from the LTC Agenda	Completed
Liubov Lobanova	LL to disband NCUT pre-masters working group from the LTC Agenda	Completed
Liubov Lobanova	LL to add Absence Policy working group updates into LTC agenda	Completed
Liubov Lobanova	LL to add Tutors Training Need working group updates into LTC agenda	Completed
Liubov Lobanova	LL to add Marking Grid for PMA working group updates into LTC agenda	Completed
Liubov Lobanova	LL to inform FT, PT and OS Teams that WMG can scrap using our declarations, as they would be replaced by Tabula's declaration set up.	Completed
Kevin Neailey	To book a new meeting for KN/RC/MGL to discuss the Cyber audit	Completed – meeting 31 st Oct 2018
Martyn Pinfold	To book a new meeting for Plagiarism Process Working Group in Oct 2018, once the dissertations had been marked in Sept 2018.	Completed – meeting 29 th Nov 2018

Ongoing actions:

Robin Clark	RC to form a working group to work on dissertations review process	Ongoing – group to be formed this week
Robin Clark	RC to speak to Barbara Shollock about IPR for MSc projects and other research collaborations	Ongoing
Robin Clark	RC to speak to HR about the situations with publications of WMG students’ work under external supervisors’ names	Ongoing
Amy Collins	AHC to make details of the numbering systems for all WMG teaching quality document and a document log available on website	Ongoing
Jeff Jones	To build query in new supervisor records database in order to check supervisory experience of past WMG staff applying to be external supervisors	Ongoing
Jeff Jones	JJ to send the email out to ask for volunteers to form a group to look into an electronic marking options	Ongoing, in progress
Jeff Jones	JJ to form Marking grid for PMA Working Group and to find a lead person for this group.	In progress
Jeff Jones/ Helen Neal	JJ and HEN to look for a new External Examiner (Automotive Specialist)	Ongoing – to be done after Exam Boards
Kevin Neailey	KN to invite Peter Norris to lead CSE TFG.	Ongoing
Gareth Taylor	GT to form Absence Policy working group	MN & MGL agreed to participate, needs to cover both UG & PG (to go to MJ & KN)

3.2. Other matters arising

Reporting of actions has been split into completed and ongoing, grouped by the person responsible and it was agreed that this will be reported in the same way in future agendas/minutes.

4. Chair's Actions since Last Meeting

Action	Item	Level	Approved by		Minute reference	Other notes
			Chair	Head of Education		
<i>Approval</i>	<p><i>Revised Modules:</i></p> <ul style="list-style-type: none"> - eCommerce (ES9R2-10) - Technology Management (ES973) - Sales and Sales Management - Electrical and Electronic Principles 	<p><i>PGT</i></p> <p><i>PGT</i></p> <p><i>PGT</i></p> <p><i>UG</i></p>	<p><i>JJ</i></p> <p><i>JJ</i></p> <p><i>JJ</i></p> <p><i>JJ</i></p>	<p><i>RC</i></p> <p><i>RC</i></p> <p><i>RC</i></p> <p><i>KN</i></p>	<p><i>NA</i></p> <p><i>NA</i></p> <p><i>NA</i></p> <p><i>NA</i></p>	Revised due to missing MA1 form and to ensure correct level Vocabulary used
<i>Approval</i>	<p><i>Revised Modules:</i></p> <ul style="list-style-type: none"> - Logistics and Operations Management(ES961-10) - Programming and Fundamental Algorithms for Scientists and Engineers (WM908-10) 	<p><i>PGT</i></p> <p><i>PGT</i></p>	<p><i>JJ</i></p> <p><i>JJ</i></p>	<p><i>RC</i></p> <p><i>RC</i></p>	<p><i>Sept-18 LTC, 6.2.2</i></p> <p><i>Sept-18 LTC, 6.2.1</i></p>	<i>Sent to University 26/09/2018; approval received 12/10/2018</i>
<i>Approval</i>	<p><i>Revised Modules:</i></p> <ul style="list-style-type: none"> - Automotive Sensors and Sensor Fusion (WM918-15) - Robust Automotive Embedded Systems (WM915-15) 	<p><i>PGT</i></p> <p><i>PGT</i></p>	<p><i>JJ</i></p> <p><i>JJ</i></p>	<p><i>RC</i></p> <p><i>RC</i></p>	<p><i>NA</i></p> <p><i>NA</i></p>	
<i>Approval</i>	<p><i>New Course:</i></p> <ul style="list-style-type: none"> - Degree Apprenticeship in Digital & Technology Solutions (DTS) 	<p><i>UG</i></p>	<p><i>JJ</i></p>	<p><i>KN</i></p>	<p><i>Aug-18 LTC, Item 6.1.2</i></p>	<i>Sent to University 24/09/2018; changes requested have been actioned</i>
<i>Approval</i>	<p><i>Minor changes to the elective list for Full Time ITM 18/19:</i></p> <ul style="list-style-type: none"> - removal of LOM and - addition of BDAV and ISM; - designation of BDAV and ISM as 'Technology' in addition to their previous designations (in order to allow this). 	<p><i>PGT</i></p>	<p><i>JJ</i></p>		<p><i>NA</i></p>	

Approval	<p><i>Minor changes to regulations of 3 courses at Hong Kong VTC for 2018/19:</i></p> <ul style="list-style-type: none"> - ITM: removal of IPF and FPD; addition of LAGB (International Business list) - PPM: removal of IPF and FPD; addition of LAGB (options) - SMD: removal of IPF and FPD; addition of SCM and LAGB (options) 	PGT	JJ		NA	
Approval	<p><i>Minor changes to e-Business Management Course Regulations (adding modules to option list B):</i></p> <ul style="list-style-type: none"> - Data Science and Machine Learning - Computational Statistics with Python - Big Data Analytics and Visualisation - The Digital Workplace - Digital Entrepreneurship and Digital Disruption 	PGT	JJ		NA	

5. Annual Review of Academic Quality Processes

5.1. *Process for Approval of external project supervisors via Triage (due August 2019)*

5.2. *Process for dealing with suspected plagiarism in modules (due September 2018)*

Received: 5.2.1 – Suspected Cheating in a University Test – WMG PROCESS

5.2.2a – Issue-1 Draft-A_Instructions for completing a plagiarism case form

5.2.2b – Issue-1-Draft-A_Plagiarism Decision Guidance

Paper 5.2.1 was provided for a cursory check only; this was approved by Jeff Jones on Chair's Action and forwarded to AQSC for their approval over the summer. AQSC approval has only just been given so any further changes should not be forwarded immediately, any concerns should be fed into a TFG to further develop this policy, if required.

Papers 5.2.2a and 5.2.2b were submitted for full LTC review and approval as they are part of plagiarism guidance given to panels but have not been officially approved by LTC. AHC proposed that they could be merged into one Panel Guidance document (after whatever other revisions LTC may require).

The documents were approved subject to the changes recommended by members of LTC. AHC to action these changes and merge papers 5.2.2a and 5.2.2b as proposed. It was also suggested that these procedures should also recommend the investigation of supervisors in instances where poor academic practice should have been identified at a much earlier stage. These procedures may also need to be aligned with forthcoming university processes on contract writing once these are available.

5.3. *Process for approval of supervisor workload via Triage (due September 2018)*

Received: 5.3.1 – Triage process for increase in external project supervisors project number allowance

It was recommended that the process should take into account any issues with supervisors' moderation activities, based on specific examples and evidence (for example, where marks are changed past a grade boundary, any substantial change of marks or not reporting plagiarism). It was also proposed that any increase in numbers should be dependent upon supervisors attending training. Recording of all monitoring points (not just the minimum number) should be compulsory for all supervisors. MGL to contact Tabula team re a mechanism for reporting on the number of supervisor meetings with students. Additionally, AHC to update the document according to suggested amendments and re-issue.

5.4. *Process for Approval of Module Owners, Tutors, Markers and Course leaders (due 1 year after formalisation)*

Received: 5.4.1 - Module Owner Approval/Change

This document was submitted for a discussion/approval as the process needs revision/rethinking in the light of decisions made during the Sep-18 LTC, delegating tutor/assessor approval to module owners, but this process still needs to be agreed with respect to the owner role itself.

Sessional teaching issues and concerns also need to be taken into account in the context of this process. There are a number of risks relating to the number of sessional teaching staff currently employed across WMG and the range of activities they are undertaking on behalf of Module Owners. There were at least 180 instances of STP use over the last academic year (17/18) and this figure does not include research student usage or PG supervision usage. Approx. 100 instances are the equivalent to two FTE (full-time equivalents). Marking is a particular concern because of the number of formal complaints in this area and the risk of reputational damage. MJ is currently undertaking work in this area and this also relates to

Catherine Gordon's activities re workload issues. MJ is currently co-ordinating with WMG HR to help set-up an STP (Sessional Teaching Payroll) committee across WMG. JJ to discuss with Jane Coleman to explore how these issues should best be addressed. Paper 5.4.1 will be revisited once there is more clarity on policies for sessional teaching and employing external staff. LL to set up STP as a standing LTC agenda item.

5.5. Process for annual assessment of courses (due October 2019)

5.6. Process for annual assessment of modules (due October 2019)

5.7. Process for moderation of coursework (due September 2019)

5.8. Module Role Definitions review (due September 2019)

6. Course & Module Approval

6.1. Updates on New Course approvals (University Level)

6.2. New Course Proposals, Revisions & Discontinuation

None. KN to circulate details of forthcoming UG programmes to WMG Academic Quality and prepare a paper for consideration by LTC. GT advised that two partially retrospective approvals for part-time postgraduate degree apprenticeships will also be subject to LTC oversight; LTC will need to consider and plan how to manage this influx of additional programmes.

6.3. New Module Proposals, Revisions & Discontinuation

Min.	Doc type	Level	Module(s)	Submitted by	Paper(s)	In-principle approval	Decision
6.3.1	New MA1	PGT	Composite Materials for Automotive Applications	Andy Clough	6.2.1a	Confirmed at EMG 17 Oct 2018	Approved on the basis that LTC's recommendations are addressed and that an additional tutor is identified to provide contingency
6.3.2	Revised MA1	PGT	Operations Strategy for Industry	Dr Adrian Watt	6.2.2a	NA	Not approved due to inconsistencies with other modules regarding delivery/contact time and PMA requiring too much work; required to resubmit to a future LTC to address the concerns
6.3.3	Revised MA1	PGT	Lean Operations Design and Management	Neil Davis	6.2.3a	NA: splitting out FT/OS from PT provision not technically new provision as it has always been thus	MA1 not approved but change of name approved for 2019/20. Recommended (to EMG) to consider all current LEAN modules as there seemed to be some concern from some staff. This MA1 needs to be revised in the light of EMG considerations and then resubmitted to LTC.
6.3.4	New MA1	PGT	Design Thinking	Mairi Macintyre	8.1		Not approved: LTC supports this module but further details are needed from the TFG before the module can run; RC will support MM to develop module further

MGL and AHC to establish a new TFG to prepare guidance on completing MA1 forms. The module proposal process also needs to address the issues involved when modules with a single running are built around an individual tutor: this creates a single point of failure if the tutor is subsequently unavailable for any reason. Criteria are needed to ensure that modules can be run by more than one individual, can run more than once per academic year and are consistent in terms of contact time hours. Course leaders also need to be consulted in advance regarding the relevance and fit of proposed modules within their courses. Such consultation should occur once a module has been approved in principle by EMG but before significant development work is undertaken (AHC is EMG Secretary).

7. Monitor & Review

7.1. Course Reviews

None at present.

7.2. Module Reviews

None at present.

7.3. Dissertation Reviews

None at present.

7.4. Review of Exam Board Processes

None at present.

7.5. Review of Pedagogic Initiatives and TEL Processes.

Secretary's note: AHC circulated GK's papers after the meeting.

8. Task and Finish Groups (TFGs) in progress

Task and Finish Group	Type	Group Lead	Group Members	Updates
Module Role Definitions	Academic guidance	MGL	TBC	<p>Reported that:</p> <ul style="list-style-type: none"> the September meeting of LTC agreed that approval of module tutors and assessors could be delegated to module owners, with a requirement to report all appointments to LTC. it has since been clarified, that approval of external module tutors or assessors, teaching on Overseas Programmes, requires Partnerships Committee approval and, therefore, the approval of these roles for OS Programmes should be delegated to both the OS Programmes Director and the module owner in collaboration (in place of LTC); these appointments should be reported to LTC only if and when Partnerships gives approval (as a final and definite appointment). these delegations could have immediate effect and should be communicated to teaching staff. <p>Work is ongoing with a meeting on 31st October 2018 to take activities forward.</p>
Exam Board Processes	Academic guidance	JJ	HEN, AR, MP, AHC, Tanya Carey	A meeting is planned to explore exemptions based on previous experience & qualifications. Need to ensure Exam Boards follow regulations (can a core module be exempted?) – to be revisited – criteria for core, essential core etc
External Examiners' Reports review	Academic guidance	JJ	Neal, Helen Taylor, Gareth Pinfold, Martyn Newton, Mike	Responses to reports have been written, these will be uploaded on Friday 2 nd November TFG can be disbanded
Dissertation reviews	Academic guidance	RC	TBC	RC taking forward, there have been lots of volunteers for this TFG The University has raised concerns re WMG's policy of conducting a viva examination for every student (could be interpreted as an accusation of plagiarism)
Plagiarism process	Academic guidance	MP	JJ, AHC, Christine D'Cruz, Samima Hussain, Lucy Inman, David Wright, Julie Rawlinson	TFG is meeting 29 th November 2018
Cyber programmes audit	Course review	KN	RC, MGL, JMN, Matt Sokola	TFG is meeting 31 st October 2018
Quality handbook	Academic guidance	AHC	TBC	TFG members have been identified, a meeting needs to be arranged

Ethical Approval of Projects	Academic guidance	KN	Stewart Birrell, Tanya Carey, Nikki Knowles, GT, David Wright	TFG has met; KN reported that this TFG could not have achieved anything without TC's input. TC circulated a form used for FT projects, it would be best to employ the same form for all programmes if possible. Important to ensure that students fully understand what they need to do in this area and the consequences if they don't. Better communications around ethical considerations are needed across WMG and the long term goal should be to reduce the number of issues arising in this area
Absence Policy	Academic guidance	GT	TBC	JMN & MGL have agreed to participate, TFG needs to address both UG & PG (MJ & KN to consider)
Tutors Training Need	Academic guidance	JJ	Edwards, Rachel Coleman, Jane Knowles, Graeme Marshall, Jane Pinfold, Martyn Malins, Morag Carey, Tanya Newton, Mike Schrock, Lauren Collins, Amy	TFG is meeting on 13 th December 2018 MGL to join group
Marking Grid For PMA	Academic guidance	TBC	TBC	Completed
MSc Cyber Security Engineering (CSE)	Course	Peter Norris, (KN)	TBC	Ongoing (see actions from September meeting)
DA in Digital & Technology Solutions (DTS)	Course	KN	TBC	Approved via CA; sent to University 24/09/2018 TFG can now be disbanded
Design Thinking Module	Module	RC	HEN, Mairi MacIntyre	Paper 8.1.a_MA1 Design Thinking V8 submitted for discussion/LTC approval (see previous section 6.3)
MSc International Technology Management (ITM)	Course	Angela Clarke (with GK)	TBC	Angela Clarke leading with support from GK
Resubmission of work to remedy failure for modules when some of LOs is practically based	Academic guidance	TBC	Peter Norris, Neil Davis, Antony Allen, Valentina Donzella	Completed
Taxonomy of words used in learning outcomes and questions	Academic guidance	Vagelis Kitsos	AHC, Lauren Schrock	Only just formed after LTC meeting
Late Marking/Extensions (Marking Recovery Process)	Academic guidance	MGL	TBC	Set up under item 11.1 below
HOMS Degree Apprenticeship	Course	Sudi Lahiri	GT, Sue Parr	Set up under item 11.5 below

Received: 8.1.a_MA1 Design Thinking V8 (see previous section 6.3)

9. Issues Arising from the Teaching Excellence and Student Outcomes Framework (TEF)

9.1. TEF working groups and steering committee

The intention is to complete module feedback questions at the next meeting to trial with students shortly.

10. Respond & Report

10.1. External Examiners Reports

Nothing to report.

10.2. Cascade Points

We have formalised the new process for review of our courses and modules, which was developed by the working group led by Robin Clark; the new process is now published at <https://warwick.ac.uk/fac/sci/wmg/intranet/student/academic/coursemodreviews/>. The intention is for every course to have completed their course and module review by the end of this academic year (i.e. summer 2019). Course leaders have been notified and will be contacting their teams (as defined in the process) in due course.

11. Any Other Business

11.1. Late Marking/Extensions (Marking Recovery Process)

A web form (<https://warwick.ac.uk/fac/sci/wmg/intranet/student/academic/modules/latemarking>) has been developed to capture and report instances where marks will be returned late. It was noted that this will document rather than directly address late marking issues. Processes need to encompass UG and PG and line managers should also be informed. The new process will be applied and reviewed over the coming weeks. It was also noted that the University expects departments to cover instances of staff illness without impact on marking deadlines.

A TFG will be formed in relation to the above with MGL to lead the group.

11.2. Clarification around Module Exemptions Criteria (M level requirement)

This will be explored by the Exam Board Processes TFG.

11.3. TFGs Rules

Received: 11.3.1 – Issue-1-Draft-A_LTC-task-and-finish-group-rules

It was suggested that reporting requirements for TFGs may vary between groups. It may be appropriate to alternate requests for updates for some groups so they report at every other rather than at every meeting. AHC to make changes and publish document.

11.4. Guidance for group work within modules

Matt Sokola has asked whether any guidance is available in relation to the above, covering aspects such as peer assessment and group marking. Practices currently vary across WMG so this may be something LTC wishes to consider in future.

11.5. HOMS Degree Apprenticeship

A TFG is needed in relation to the above, GT to be LTC representative with Sue Parr and Sudi Lahiri leading.

12. Date of Next Meeting

12th December 2018, 12.00-16.00, IMC 110 (Papers Deadline is 28th November 2018)

New actions:

Person Responsible	Action	Status
Amy Collins	Processes for dealing with suspected plagiarism: action changes requested by LTC and merge papers 5.2.2a and 5.2.2b as proposed	
Amy Collins	Update the process for approval of supervisor workload via triage document according to suggested amendments and re-issue	
Amy Collins	AHC to make changes to LTC TFG rules document re TFG reporting frequency and publish document	
Jeff Jones	Discuss with Jane Coleman to explore how STP (Sessional Teaching Payroll) issues should best be addressed across WMG	
Jeff Jones	Circulate updates Pedagogic Initiatives and TEL Processes provided by GK	
Jeff Jones	Complete External Examiners reports	
Mathew Jones & Kevin Neailey	Consider UG input to absence policy TFG	
Maddie Langeveld & Amy Collins	Establish a new TFG to prepare guidance on completing MA1 forms	
Maddie Langeveld	Contact Tabula team re a mechanism for reporting on the number of supervisor meetings with students (re triage process for approving increases to supervisors' project number allowance)	
Liubov Lobanova	Set up new LTC standing agenda item on STP	
Kevin Neailey	Circulate details of forthcoming UG programmes to Academic Quality and prepare a paper for consideration by LTC	
Gareth Taylor	Confirm establishment of & participation in new HOMS Degree Apprenticeship TFG with Sue Parr & Sudi Lahiri	
Maddie Langeveld	Establish a new TFG to look into Late Marking/Extensions (Marking Recovery Process)	

**WMG Learning and Teaching Committee (LTC)
Minutes for the meeting
held on 12th December 2018 at 12.00 in IMC110**

1. Attendance

Name	Role	Initials	Attendance
Jeff Jones	Chair	JJ	Present
Liubov Lobanova	Secretary	LL	Present
Members:			
Ahmed Er	Director of Full Time Programmes	AE	Present
Amy Collins	Academic Quality Officer	AHC	Present
Gareth Taylor	Professional & Executive Programmes Manager	GT	Present
Graeme Knowles	Convener of the Pedagogic Interest Group	GK	Apologies
Helen Neal	PGT Exam Board Secretary	HEN	Present
India Palmer	Teaching and Learning Officer, UG Programmes	IP	Present
Kevin Neailey	Director of Undergraduate Studies (Quality & Governance)	KN	Present
Maddie Langeveld	Head of Administration (Teaching and Learning)	MGL	Present
Martyn Pinfold	Full Time Programmes Manager	MP	Present
Mathew Jones	Deputy Director of UG Programmes	MJ	Apologies
Mike Newton	Director of Overseas Programmes	JMN	Apologies
Robin Clark	Associate Director of Postgraduate Programmes	RC	Present
Angie Zhao Dai	Student representative, PGT	AZD	Present
Saurabh Kukreja	Student representative, PGT	SK	Apologies
Luciana Gaspar Zamora	Student representative, PGT	LGZ	Apologies
Simon FitzGerald	Student representative, UG	SF	Apologies
In Attendance:			
Matt Sokola	Senior Teaching Fellow, Director of the EDA study programme	MS	Present For Item 6.2.2 only

Clive Reynolds		CR	Present For Items 6.2.1 & 6.3.1-6.3.4 only
Roland Ingram	Process Owner, Registrar's Group	RI	Present For Item 11.1.1 only

The Chair welcomed a new Student Representative who joined the committee and gave a round of introductions.

2. Minutes of Last Meeting

2.1. Last meeting of the Learning and Teaching Committee (available at <https://warwick.ac.uk/fac/sci/wmq/intranet/info/governance/wmqcommittees/ltc/tlc-minutes/>)

The minutes of the last meeting were accepted as a true record.

3. Matters Arising from Minutes and Previous Cascade Points

3.1. Actions out of 20th September 2018 meeting

Person Responsible	Action	Status
Gareth Taylor	Confirm establishment of & participation in new HOMS Degree Apprenticeship TFG with Sue Parr & Sudi Lahiri	Complete
Jeff Jones	Circulate updates Pedagogic Initiatives and TEL Processes provided by GK	Complete
Jeff Jones	Complete External Examiners reports	Complete
Maddie Langeveld	Establish a new TFG to look into Late Marking/Extensions (Marking Recovery Process)	Complete
Gareth Taylor	GT to form Absence Policy working group	Complete
Amy Collins	AHC to make details of the numbering systems for all WMG teaching quality document and a document log available on website	Complete: AHC made available what she feels is sensible to make available at this stage (the numbering system) and she will consider how best to publish a log once the AQ guide TFG has done a lot more work on this (LTC action no longer needed as it's part of that group's work)
Jeff Jones	JJ to form Marking grid for PMA Working Group and to find a lead person for this group.	Complete: First meeting is Friday 18 th January 2019 @10:00 Location TBD

Jeff Jones	To build query in new supervisor records database in order to check supervisory experience of past WMG staff applying to be external supervisors.	<p>Complete: It's in SITS-ad-Hoc-Queries and is called Project-Supervisor-History. It prompts for the name of the supervisor and will take sub strings of the name and will return all supervisors that match</p> <p>New Action: AHC to copy "Project-Supervisor-History" query to new supervisor records database in order to check supervisory experience of past WMG staff.</p>
Kevin Neailey	Circulate details of forthcoming UG programmes to Academic Quality and prepare a paper for consideration by LTC	Complete: List of courses sent to JJ and AHC; no need for a paper at this stage
Jeff Jones	JJ to send the email out to ask for volunteers to form a group to look into an electronic marking options	Complete: first meeting is scheduled for 14 th January 2019 @ 10:00; Location TBD
Amy Collins	Processes for dealing with suspected plagiarism: action changes requested by LTC and merge papers 5.2.2a and 5.2.2b as proposed	Complete: submitted for review to this LTC
Jeff Jones/ Helen Neal	JJ and HEN to look for a new External Examiner (Automotive Specialist)	Carried forward. Will start looking after Christmas.
Maddie Langeveld & Amy Collins	Establish a new TFG to prepare guidance on completing MA1 forms	In progress: group not yet fully established
Kevin Neailey	KN to invite Peter Norris to lead CSE TFG.	Complete. Peter Norris will lead the group.

Mathew Jones & Kevin Neailey	Consider UG input to absence policy TFG	Ongoing. Comments sent to GT
Amy Collins	Update the process for approval of supervisor workload via triage document according to suggested amendments and re-issue	Complete
Amy Collins	AHC to make changes to LTC TFG rules document re TFG reporting frequency and publish document	Complete
Jeff Jones	Discuss with Jane Coleman to explore how STP (Sessional Teaching Payroll) issues should best be addressed across WMG	Superseded by formation of another admin based group to look at this
Liubov Lobanova	Set up new LTC standing agenda item on STP	No longer required
Maddie Langeveld	Contact Tabula team re a mechanism for reporting on the number of supervisor meetings with students (re triage process for approving increases to supervisors' project number allowance)	Complete
Robin Clark	RC to form a working group to work on dissertations review process	In Progress: Have had a lot of interest. First meeting in January 2019
Robin Clark	RC to speak to Barbara Shollock about IPR for MSc projects and other research collaborations	In Progress: RC will speak with Tony McNally in January 2019
Robin Clark	RC to speak to HR about the situations with publications of WMG students' work under external supervisors' names	In Progress: RC will schedule a meeting with HR ASAP.

3.2. Other matters arising

4. Chair's Actions since Last Meeting

Action	Item	Level	Approved by		Minute reference	Other notes
			Chair	Head of Education		
Approval	Revised Modules:					
	- Digital Marketing Systems & Techniques (ES921-10)	PGT	JJ	RC	NA	Revised to ensure correct level Vocabulary used Clarification of Learning Outcomes Both MA1 forms were sent to University
	- Process Improvement Using Six Sigma (ES91L-10)	PGT	JJ	RC	NA	
Approval	Revised Process:	NA	JJ		NA	Minor changes to wording of various parts that referred to specific years and past events, and also amendment of the line about what a module tutor's role is for the purposes of this process, to clarify it's the person taking specific responsibility for a given running.
	- Process for review of courses and modules					

5. Annual Review of Academic Quality Processes

Nothing to review for this meeting.

6. Course & Module Approval

6.1. Updates on New Course approvals (University Level)

KN reported the following:

- The change from 15 to 30 credit project on AEP programme was recently approved by the University for 2019-20 start
- Digital Technology Solutions (DTS) course was academically approved, however there were some financial issues outstanding; it was recommended to change to 120/120/120 credit for this course.

6.2. New Course Proposals, Revisions & Discontinuation

Min.	Doc type	Level	Course	Submitted by	Paper(s)	Notes	Decision
6.2.1	<ul style="list-style-type: none"> - TFG Report - Revised CA From - External Evaluation Report – David Probert - External Evaluation Report – Ron Matthews 	PGT	International Technology Management	Angela Clarke	6.2.1a 6.2.1b 6.2.1c 6.2.1d	The paperwork has been reviewed and approved by the Task & Finish Group	Approved subject to changes (to be signed off on Chair’s Action)
6.2.2	<ul style="list-style-type: none"> - Proposed Revisions for September 2019 	UG	BEng (Hons) Engineering – Degree Apprenticeship	Matt Sokola	6.2.2		To form TFG.

Summary of discussions:

6.2.1– TFG may not have understood the expectations (including the group cross-checking all paperwork, presenting it in a clear and consistent style to LTC, etc.), therefore has not been fully effective; LTC agreed to appoint an additional LTC representative – AHC – who will provide an additional guidance on the correct TFG process.

LTC agreed that the proposal was academically appropriate, but inconsistencies and errors in the papers should be corrected.

Noted that ITM programme is running overseas (VTC, HK) and the question was raised as how the proposed changes will affect this variant of the programme? Agreed that Overseas Programme Director should be consulted.

CR answered various questions from LTC members, explaining why the changes to the programme were necessary

Action: AHC to arrange a meeting with Angela Clarke first week in January 2019. (Secretary Note: Action complete prior to issue of minutes)

Action: GK to nominate a deputy for LTC if he is unable to attend

6.2.2 – MS explained that the proposed revision of EDA programme was prompted by Dyson’s evolving product portfolio. The proposed programme will have 4 streams as described in the proposal document. Noted that, for the proposed programme, 16 mods needs to be changed, but 21 will remain unchanged. Six new modules on Electronics-Software stream are similar to new DTS modules and thus can be co-developed. Agreed to form TFG wit Matt Sokola to lead, and KN being an LTC representative.

6.3. New Module Proposals, Revisions & Discontinuation

Min.	Doc type	Level	Module(s)	Submitted by	Paper(s)	In-principle approval	Notes	Decision
6.3.1	New MA1	PGT	Emerging Technologies for Business	Angela Clarke	6.3.1	Yes	The paperwork has been reviewed and approved by the Task & Finish Group	Approved subject to changes (to be signed off on Chair's Action)
6.3.2	New MA1	PGT	Managing Innovation and Change	Angela Clarke	6.3.2	Yes	The paperwork has been reviewed and approved by the Task & Finish Group	Approved subject to changes (to be signed off on Chair's Action)
6.3.3	New MA1	PGT	Systems Thinking & Systems Engineering	Angela Clarke	6.3.3	Yes	The paperwork has been reviewed and approved by the Task & Finish Group	Approved subject to changes (to be signed off on Chair's Action)
6.3.4	New MA1	PGT	Technology Management	Angela Clarke	6.3.4	Yes	The paperwork has been reviewed and approved by the Task & Finish Group	Approved subject to changes (to be signed off on Chair's Action)
6.3.5	Revised MA1	PGT	eCustomer Relationship Management	Michael Mortenson	6.3.5	Not required (revision)	This MA1 is submitted primarily to update the learning objectives in time to get approval for the PMA question	Not Approved; Pending changes to LTC (need to come back to LTC with changes alongside the CA form)
6.3.6	New MA1	PGT	Cloud Native Computing	Michael Mortenson	6.3.6a	Yes	This module is designed to complement Information Systems Management (ISM) by offering content that is more appropriate for those developing software in organisation rather than those charged with managing software (technology and managers). It is the intention that students who are on the Digital and Data Science pathway, and are therefore more likely to be developing software products, would be better served by this module, whereas those who are studying other pathways, and	Not Approved; Pending changes to LTC (need to come back to LTC with changes alongside the CA form)

	Timetable				6.3.6b		are more likely to be managers or customers of software developers, would be better served by the ISM module. As the intention is to have a more restrictive policy to elective choices, CA1 to follow for the next meeting, there would be no issue with students taking both these modules. Timetable submitted for information only	
6.3.7	New MA1 Timetable	PGT	Digital Consultancy	Michael Mortenson	6.3.7a 6.3.7b	Yes	Timetable submitted for information only	Not Approved; Pending changes to LTC (need to come back to LTC with changes alongside the CA form)

Various issues with timetabling of the modules were briefly discussed. It was agreed that providing tutors with examples of timetabling for 'standard' modules would be helpful but that should not be constraining tutors' creativity in way they deliver modules.

Action: MGL to provide examples of timetabling for standard modules.
Action: LL to include timetabling into Agenda for the next LTC meeting.

7. Monitor & Review

7.1. Course Reviews –

None

7.2. Module Reviews –

None

7.3. Dissertation Reviews

None

7.4. Review of Exam Board Processes

HEN reported that:

- a new SharePoint system was used as part of the Exam Board process. Six external examiners in total, including three new examiners, were involved in the Exam Board in November 2018. The feedback was generally positive- they all liked the new system and were happy with the processes. No written reports were received yet. Some verbal comments about supervisors assessing projects were noted.
- that after the Board, notifications to students were delayed due to some issues with using SharePoint; this delay was combined with the fact that Student Records coded the extensions pretty instantly; these caused a big volume of queries from the students.
- There were a few issues with applying of ReMe penalties as it seems that some students and supervisors were not aware about this.
- Some Project submission dates were incorrectly recorded in SITS and this was extracted in SharePoint

JJ pointed that we have been misinterpreting the clause;

(c) Where the failure on an initial assessment in a taught module, dissertation or similar piece of independent project work is the result of penalties for late submission, the student should normally not be allowed to revise or resubmit the same assessment in order to remedy that failure, but should be required to undertake a new assessment, dissertation or project. Where it is impracticable for the department to allow the student to undertake a new assessment, dissertation or project that has failed due to penalties for late submission, the initial failure should be allowed to stand (and the matter referred to the Board of Examiners for their consideration of all the circumstances relevant to the case).

It does not say that the failed student has to take a new module. It is just saying that the same assessment (i.e. the assignment failed due to late penalty) cannot be resubmitted, but a new assessment (i.e. a completely new assignment) has to be undertaken. This has implication for projects where it implies if a project fails for late penalties we must ask the student to change something. The TFG group will meet to address this.

7.5. Review of Pedagogic Initiatives and TEL Processes.

RC reported that the Education Innovation Group (EIG) has been formed to support the development of Learning and Teaching in WMG. It was clarified that EIG would be covering four areas of work including TEL and would itself report into LTC. It was clarified after the meeting that PIG was being continued as a forum and not a committee, and as such would not report into LTC.

8. Task and Finish Groups (TFGs) in progress

Task and Finish Group	Type	LTC when the group was formed	Group Lead	LTC Rep (if different from Group Lead)	Group Members	Updates
Module Role Definitions	Academic guidance	Jan-18	MGL		MGL, AHC, GT, GK, JMN, Steve Maggs	<p>GT & MGL updated definitions but wanted to run it by Sue Parr, as her role is unique. (Director of Degree Apprenticeship). The paper will be submitted to Jan-19 LTC</p> <p>Action: LL to change the name of the 'Module Role Definitions' group to 'Role Definition' group.</p>
Exam Board Processes	Academic guidance	Jan-18	JJ		HEN, GT, MP, JMN, JJ	<p><u>Recommended:</u></p> <p>That we will institute progression boards to make decisions on resubmissions and mitigation for modules:</p> <ul style="list-style-type: none"> • For FT students this would be a board in August that considers 'the spreadsheet' of fails (note: must be chaired by Sujit) <ul style="list-style-type: none"> ○ There would be a mitigation panel prior to this which considers mitigation and makes recommendation to that board (suggest July using normal FT mitigation panel of Helen, Ahmet and Martyn at least) • For PT and OS students this would be a regular monthly board (Sujit, Mike, Gareth, Helen, HC via Skype at least) to consider resubmission requests according to the usual process <ul style="list-style-type: none"> ○ A mitigation panel (Helen, Mike, Gareth... anyone else?) which takes place immediately before the 'board' above and considers any mitigation for that month, reporting outcomes into the following meeting <p><u>Resolved:</u> that progression boards would be instituted and that timings would be arranged ASAP</p> <p>Action: HEN to make the necessary arrangements for progression boards with EB team</p>

Dissertation reviews	Academic guidance	Sep-18	RC		TBC	
Plagiarism process	Academic guidance	Mar-18	MP		JJ, AHC, Christine D'cruz Samima Hussain, Lucy Inman, David Wright, Julie Rawlinson	MP reported that after the last meeting, wording in the PL letters was slightly changed and Jeff's name is now on letters. More tutors/supervisors trainings are needed. Action: LL to disband the group and to remove it from the TFG table. Action: AHC to send the agreed wording of PL letters to AE. (Secretary Note: Action complete prior to issue of minutes)
Cyber programmes audit	Course review	Aug-18	KN		RC, MGL, JMN, Matt Sokola	Group met a couple of times. Problems were identified. Next stage is to meet with Tim Watson.
Quality handbook	Academic guidance	Apr-18	AHC		AHC, JJ, MGL, JMN, GT, AE, RC, Stuart Barnes, Kurt Debattista, KN	Meeting held. Another meeting is scheduled for January; updates will be provided to January LTC meeting
Ethical Approval of Projects	Academic guidance	Sep-18	KN		Stewart Birrell, Tanya Carey, Nikki Knowles, GT, David Wright	KN reported on the progress: For PT still a bit of work to be done, and lots of work to be done for UG. Next step is to have a look at how to ensure compliance. Noted that more training for supervisors is needed. Tanya Carey will need a support from a more senior level.
Absence Policy	Academic guidance	Aug-18	GT		GT, JMN, MGL, KN, MJ	TFG established. Draft text created. Suitability confirmed for UG and PT PG. Waiting for final confirmation from FT PG and OS PG. Group didn't meet yet. Agreed that there will be one document with some basic principles across all programmes and additional separate documents with specific information for different programmes.
Tutors Training Need	Academic guidance	Nov-18	JJ		Rachel Edwards, Jane Coleman, GK, Jane Marshall, MP, Morag Malins, Tanya Carey, JMN, Lauren Schrock, David Wright, ACH, JJ, MGL	First meeting is scheduled for Thursday 13 th December at 14:00 in IMC108 to discuss what the policy will be.

Marking Grid For PMA	Academic guidance	Sep-18	TBC	JJ	JJ, Karen Bradbury, Vagelis Kitsos, Adrian Watt, Andrea Latham, Lee Griffin, Morag Malins	First meeting is scheduled for 8 th January at 10:00 Location TBD
MSc Cyber Security Engineering (CSE)	Course	Aug-18	Peter Norris	KN	TBC	KN reported that the group was formed. Peter Norris is chairing it. The members will be Kath Garnett, Duncan Hine and KN as LTC representative. HN agreed to join the group.
Design Thinking Module	Module	Jun-18	RC		HEN, Mairi MacIntyre	Group hasn't met yet. To report in January 2019
MSc International Technology Management (ITM)	Course	Sep-18	Angela Clarke	GK	Angela Clarke, GK, Cathy Fawcett, Teng Zhang, Clive Reynolds, Kim Stansfield, Dee Nicholls, Michael Mortenson, Steve Raynor, Edwina Jones	Received: See items 6.2 & 6.3
Resubmission of work to remedy failure for modules when some of LOs is practically based	Academic guidance	Sep-18	Antony Allen	AE	Peter Norris, Neil Davis, Antony Allen, Valentina Donzella	AE agreed to join this TFG as LTC representative however there was nothing to report yet. Action: JJ to send Antony Allen a reminder about TFG for Resubmission of work to remedy failure for modules when some of LOs is practically based.
Taxonomy of words used in learning outcomes and questions	Academic guidance	Nov-18	Vagelis Kitsos	AHC	AHC, Lauren Schrock	Report was circulated at the meeting. Action: AHC to submit 'Taxonomy of words' paper for January 2019 meeting for a detailed discussion
Late Marking/Extensions (Marking Recovery Process)	Academic guidance	Nov-18	MGL		AE, India Palmer, Liz Elliott, Morag, Angela	Group agreed that Module Owners should be completing the web forms for late marking/extensions. Spreadsheet with all deadlines created and available online. Currently waiting to test the process. Question was raised if all Module Owners know that they are Module Owners? How to deal with the modules owned by externals? Action: AHC to contact all recorded module owners to check if they are aware that they are module owners Action: RC to look into the issue of modules owned by the externals

HOMS Degree Apprenticeship	Course	Nov-18	Sudi Lahiri	GT	GT, Sue Parr	Will be reported in January 2019.
Guidance on completing MA1 forms	Academic Guidance	Nov-18	MGL & AHC		TBC	The group will meet in January 2019.
E-marking guidance development	Academic guidance	Nov-18	JJ		James Pennington, Michael Mortenson, Stuart Coles, Freeha Azmat, Matt Sokola, Tara Schiller, Chris Evans, JJ	First meeting is scheduled for 14 th January @ 10:00 Location TBD
Peer Observation Process (for lectures).	Academic guidance	Dec-18	KN		TBC	TFG will be set up with KN to chair. RC & JJ want to be part of it.

9. Issues Arising from the Teaching Excellence and Student Outcomes Framework (TEF)

9.1. *TEF working groups and steering committee*

Reported that there will be TQLE & SOLG Joint meeting week commencing 17th December 2018.

TEG –RC reported that the Centre was happy with what WMG is doing. The main message was to carry on doing what we're doing and to concentrate on how WMG and School of Engineering are working together.

RC attended a meeting in London about learning gain. People are taking an extremely broad view on it. No changes to our approach is needed.

10. Respond & Report

10.1. *External Examiners Reports*

All reports from May 2018 now have department responses drafted (pending AQSC's additional responses from the University level). No new written reports yet.

10.2. *Cascade Points*

- deadline for module/course changes for 2019/20 Academic Year should be March 2019 LTC

Three pages newly added to Intranet:

- Task and Finish Group rules: <https://warwick.ac.uk/fac/sci/wmg/intranet/student/academic/ltc-tfg-rules>
- Module Role Outlines: <https://warwick.ac.uk/fac/sci/wmg/intranet/student/academic/module-role-outlines>
- Triage process for increase in FTMSc external project supervisors' allowance: <https://warwick.ac.uk/fac/sci/wmg/intranet/student/academic/increase-in-supervision-ftmsc-projects/>

11. Any Other Business

11.1. Changes to the module approval process

Received: 11.1.1 Module Approval Process

Roland Ingram gave a short presentation of the newly developed Module Approval Process, which was to replace the paper MA forms and to streamline the process. It was explained that this online paperless system will be feeding directly into SITS and other systems (i.e. module catalogues, module diets). It was confirmed that everything that all module information available in SITS will be pre-populated in the new system. The new module approval system will also be linked with the new course approval system. The new system will be available to use early 2019 and will completely replace MA1 from for new modules. Re-approvals and discontinuations will be replaced a year later. The system is cruelty in testing and is accessible here <https://moduleapproval-sandbox.warwick.ac.uk>

Resolved: Information about new module approval process was noted

11.2. Concerns around Second Marking Process (modules)

A concern was raised by AHC around the amount of significant mark changes reported to the November 2018 Exam Board, particularly from the OPP module; AHC was concerned that where there were large-scale 2nd marking changes we were not requiring the module team to report more formally to anyone (e.g. management, students, Exam Board) and may be at risk of complaints.

It was agreed that the problems with OPP should be investigated as we need to understand the problem.

Action: AHC & HEN to collate & circulate information about changes to OPP grades following 2nd marking
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11.3. Feedback from SEMEC: Opportunity for face-to-face feedback on assessment.

KN reported that at the last Faculty Education Committee meeting WMG were asked to address the patchy opportunity for face to face feedback on assessment.

It was noted that WMG offer face to face feedback on request.

Action: KN to feed back to the FEC that WMG offer face to face feedback on request.

11.4. Requests for changes to course regulations

AHC asked to consider whether the existing guidance needs making more explicit that all changes to course regulations should be requested in consultation with course leader, or whether there's anything we need to do at the point LTC receive the requests to check the consultation has actually taken place. This was agreed by LTC.

Action: AHC Amy to update the guidance to make it more explicit that all changes to course regulations should be requested in consultation with course leader.

11.5. Concern about 20 day turnaround

To consider a concern raised about 20 day turnaround. Clarity is needed on what level of 2nd marking is to be required because the current workload model suggests that blind double marking is not feasible.

Received: 11.5.1 From Workload Group 13/11/18

AHC commented that there were no requirements for 2nd marking to be full double-blind marking, and we're only doing samples. Some of this is requested within 20 day turnaround but only for modules which run once; for modules that run more than once it is within 40 days of the final running of the year and it is still sample.

Resolved: more clarity on the process should be provided.

Action: AHC to form a TFG to review the existing document about the 2nd marking process and to put together a requirements list for various programmes.

Action: LL to add 2nd Marking TFG to the TFG list

Action: IP to contact Engineering Department to check their requirements for the 2nd Marking.

11.6. Revision of Dyson Engineering UG degree programme

It was reported that January 2019 LTC should expect a Course Approval form revision for the Dyson Engineering UG degree.

11.7. Plagiarism Panel Guidance

Received: 11.7.1 Issue 1 Draft B Plagiarism Decision guidance

The last LTC recommended that two documents it had considered be merged into the one document. Given the extent of the change AHC would prefer LTC to review and approve this version, rather than immediately publishing.

Resolved: Approved subject to recommended changes in the document

Action: AHC to revise the Plagiarism Decision guidance

11.8. *New EXAM BOARD/MODERATION/ MITIGATION/ETHICS/ASSESSMENT System*

JJ reported that the new system was generally working well; now starting work on ethics and assessment parts. Moderation issues will be discussed at the Meeting on 12th January @10:00-12:00 as some tweaks to criteria are needed.

11.9. *Updating of the LTC agenda.*

Reported that AQ Team are going to revisit the LTC agenda to rationalise it and may move to University of Warwick standard format.

11.10. *Anonymous marking*

JJ reported that Module owners can't "see" the progress of their markers, therefore unable to monitor and to identify what marking may be late.

Action: MGL to investigate if it possible to set Tabula up to allow module owners to see marking allocated to other people on their module?

12. Date of Next Meeting

29th January 2019, 12.00-16.00, IMC 108 (Papers Deadline is 15th January 2019)

ACTIONS

Person Responsible	Action
Amy Collins	AHC to copy "Project-Supervisor-History" query to new supervisor records database in order to check supervisory experience of past WMG staff.
Maddie Langeveld & Amy Collins	Establish a new TFG to prepare guidance on completing MA1 forms
Robin Clark	RC to form a working group to work on dissertations review process
Robin Clark	RC to speak with Tony McNally in January 2019 about IPR for MSc projects and other research collaborations
Robin Clark	RC to speak to HR about the situations with publications of WMG students' work under external supervisors' names
Maddie Langeveld	MGL to provide examples of timetabling for standard modules.
Liubov Lobanova	LL to include timetabling into Agenda for the next LTC meeting
Liubov Lobanova	LL to change the name of the 'Module Role Definitions' group to 'Role Definition' group.
Helen Neal	HEN to make the necessary arrangements for progression boards with EB team
Liubov Lobanova	LL to disband the group and to remove it from the TFG table.
Amy Collins	AHC to send the agreed wording of PL letters to AE (COMPLETE)
Jeff Jones	JJ to send Antony Allen a reminder about TFG for Resubmission of work to remedy failure for modules when some of LOs is practically based
Amy Collins	AHC to submit 'Taxonomy of words' paper for January 2019 meeting for a detailed discussion
Amy Collins	AHC to contact all recorded module owners to check if they are aware that they are module owners
Robin Clark	RC to look into the issue of modules owned by the externals
Amy Collins	AHC to form a TFG to review the existing document about the 2nd marking process and to put together a requirements list for various programmes.
India Palmer	IP to contact Engineering Department to check their requirements for the 2nd Marking
Liubov Lobanova	LL to add 2 nd Marking TFG to the TFG list
Amy Collins	AHC to revise the Plagiarism Decision guidance
Maddie Langeveld	MGL to investigate if it possible to set Tabula up to allow module owners to see marking allocated to other people on their module?

WMG LEARNING AND TEACHING COMMITTEE (LTC)

Minutes of the meeting of the Learning and Teaching Committee held on Tuesday, 29 January 2019
from 12.00 to 16.00, in IMC108.

Liubov Lobanova
Secretary of LTC

MINUTES

1. Attendance:

Name	Role	Initials	Attendance
Clark, Robin	Associate Director of Postgraduate Programmes	RC	Present
Collins, Amy	Academic Quality Officer	AHC	Present
Dai, Angie Zhao	Student representative, PGT	AZD	Absent
Er, Ahmet	Director of Full Time Programmes	AE	Present
FitzGerald, Simon	Student representative, UG	SF	Absent
Gaspar Zamora, Luciana	Student representative, PGT	LG	Apologies
Jones, Jeff	Director of Academic Quality, Chair	JJ	Apologies
Jones, Matt	Deputy Director of UG Programmes	MJ	Present
Knowles, Graeme	Convener of the Pedagogic Interest Group	GK	Absent
Kukreja, Saurabh	Student representative, PGT	SK	Present
Langeveld, Maddie	Head of Administration (Teaching and Learning)	MGL	Present
Lobanova, Liubov	Academic Quality Administrative Assistant, Secretary	LL	Apologies
Neailey, Kevin	Director of Undergraduate Programmes (Quality & Governance)	KN	Present
Neal, Helen	PGT Exam Board Secretary	HEN	Present
Newton, Mike	Director of Overseas Programmes, Deputy Chair	JMN	Present
Pacelli, Nisia	Assessment Coordinator	NP	Present
Palmer, India	Teaching and Learning Officer, UG Programmes	IP	Apologies
Pinfold, Martyn	Full Time Programmes Manager	MP	Present
Taylor, Gareth	Professional & Executive Programmes Manager	GT	Apologies

REPORTED:

- a. That the agenda had been restructured to be more in line with University meeting style and practice (covered under paper 7.5).
- b. That the Academic Quality Officer was taking minutes of the meeting in the absence of the Academic Quality Administrative Assistant.

2. Any Other Business: Course approval process

REPORTED: (by the Associate Director of Postgraduate Programmes)

That it had become apparent that there was a lack of clarity and a sense of inconsistency around the process to be followed from idea through to fulfilment of a new course (on any programme), and that LTC had been volunteered to coordinate a TFG

to map out this process, which RC would be discussing further with the Academic Quality team initially.

3. Declaration of Conflicts of Interest

There were no conflicts of interests declared.

4. Minutes

CONSIDERED:

The minutes of the meeting held on 12 December 2018.

RESOLVED:

That the minutes were a true and accurate record, noting that the DTS course had now been approved, and that the new online module approval system would be rolled out from February and fully implemented by October, according to the University.

5. Matters Arising from the Minutes (Updates on previous actions)

Person Responsible	Action	REPORTED:
AHC	to contact all recorded module owners to check if they are aware that they are module owners	Waiting for Robin to confirm situations of external named owners (blocked)
AHC	to form a TFG to review the existing document about the 2nd marking process and to put together a requirements list for various programmes.	Ongoing (not yet decided whom to ask; intend to have done more before LTC)
HEN	to make the necessary arrangements for progression boards with EB team	That the TFG for EB processes needed to reform to review some unforeseen challenges with the process.
RC	to form a working group to work on dissertations review process	Completed – TFG meeting w/c 4 February 2019.
RC	to speak with Tony McNally in January 2019 about IPR for MSc projects and other research collaborations	To be reported further at March 2019 LTC
RC	to speak to HR about the situations with publications of WMG students' work under external supervisors' names	To be reported further at March 2019 LTC
RC	to look into the issue of modules owned by the externals	Ongoing – to feed back to Academic Quality Officer by w/c 4 February 2019

6. Alignment of Learning Outcomes with Marking problems

REPORTED:

- a. That it had been noted that some tutors were returning marks above the pass mark and at the same time were saying that some learning outcomes of the module were not met. This was contrary to the meaning of module learning outcomes. This was a problem since student appeared to have passed the module when they had not and this could cause them not to meet course learning outcomes and make them ineligible for accreditation by PSRBs.
- b. That this appeared to be related to a poor credit framework for a module where marks and learning outcomes were split across in-module and post-module work or where insufficient attention had been given to the alignment between learning outcomes, assessment tasks and marking plans.

- c. That the Director of Academic Quality felt that a TFG was needed 1) to decide how we are going to address this problem in the short term, 2) to produce some guidance for tutors on how to deal with this and 3) to make some longer term recommendation for how to avoid this problem in the future, noting that the output from this TFG should feed into the training TFG and should work closely with the PMA-marking grid TFG.

REPORTED: (by the student representative)

- d. That the MBE course allowed students to self-define some LOs and follow only 2-3 module LOs which made things easier for those students.

REPORTED: (by the Deputy Director of Undergraduate Programmes)

- e. That the issue of marker approval raised by several members of committee in relation to this was being dealt with by a task-and-finish group being led by the WMG Senior Administrator and would feed its recommendations into LTC when appropriate.

RESOLVED:

- f. That the issue would be referred back to the TEF TQLE working group to determine the long term resolution, as they had developed the feedback form and needed to review issues with its usage.
ACTION JJ to refer the long term solution to the issue around learning outcomes being passed to pass the module back to the TEF TQLE group as a follow-up to their development of the new feedback form
- g. That, in order to address the issue in the short term:
- i. The operation teams for FT, PT and Overseas would be asked to report any such issues, as they arose, to both their Programme Director (for follow up) and the Associate Director of Postgraduate Programmes (to give a picture of the extent of the issue); the offending feedback sheet should be attached to the reporting email for the reference of these directors.
ACTION MGL to ask FT ops team to forward any problematic feedback sheets they spot to Ahmet, Martyn and Robin
ACTION JMN to ask OS ops team to forward any problematic feedback sheets they spot to Mike and Robin
ACTION GT to ask PT team to forward any problematic feedback sheets they spot to Gareth and Robin
- ii. That Associate Director of Postgraduate Programmes and Academic Quality Officer would draft an email to staff to highlight this issue and request that it be urgently addressed within marking teams.
ACTION RC and AHC to write email to tutors highlighting the issue of learning outcomes needing to be met in order to pass a module and this apparently not being understood by tutors based on review of some feedback sheets

7. New Course/Module Proposals, Revisions & Discontinuation

CONSIDERED:

Min.	Doc type	Level	Course/Module(s)	Submitted by	Paper(s)	In-principle approval	RESOLVED:
6.1	Annual Review Report	Pre-Master	BCU Pre-Master Programme	Nick Phillips	6.1.a	NA – existing course	Approved subject to corrections being addressed (corrected version to be emailed to WMG-Academic-Quality@warwick.ac.uk for final sign-off by the Chair)
6.2	CA1 & corresponding MA1s and Timetables	PGT	eBusiness Management (eBM); <ul style="list-style-type: none"> • Cloud Native Computing (CNC); • Digital Consultancy (DC); • Digital Marketing Strategy and Management (DSSM); • eBusiness Fundamentals (eBF); • eCustomer Relationship Management (eCRM); • Emerging Digital Technology (EDT); • Enterprise eCommerce Solutions (EeS) 	Michael Mortenson	6.2.a 6.2.b 6.2.c 6.2.d 6.2.e 6.2.f 6.2.g 6.2.h	Yes	<ul style="list-style-type: none"> • Academically approved course and 10 credit MA1s subject to corrections being addressed (corrected version to be emailed to WMG-Academic-Quality@warwick.ac.uk for final sign-off by the Chair) • Operationally rejected 15 credit MA1s for DMSM and EeS (54 hrs / 1.5 wks), and eBT (42 hrs / 3 wks), unless the following major issue can be addressed, in which case those MA1s may be signed off on Chair's Action as above: proposal of more than 40 hours of contact time over more than 1 week is not operationally feasible for WMG so the LTC recommends: <ul style="list-style-type: none"> ○ EITHER max. 40 hours in 1 week ○ OR max. 40 hours split over two weeks of mornings/afternoons only (such that two runnings could be scheduled over the same 2 week period) ○ Extra hours of learning and teaching should be made up for through e-learning facilities to compensate • The Associate Director of Postgraduate Programmes would refer the strategic issue of module delivery modes to the Education Management Group and would discuss the issue with the course leader for e-BM.

6.3	DA approval Form	PGT	Engineering Business Management DA	Katy Angliss	6.3.a	Yes	<p>Approved subject to corrections being addressed (corrected version to be emailed to WMG-Academic-Quality@warwick.ac.uk for final sign-off by the Chair AND some combination of KN/MJ/RC) noting that particular clarity is needed around</p> <ul style="list-style-type: none"> • the DA standard being Diploma where the Warwick qualification will be MSc • where the EPA falls and what it's assessing
6.4	MA1	PGT	Business and Operations Design	Wendy Wilson	6.4.a	NA – existing module	<p>Approved subject to corrections being addressed (corrected version to be emailed to WMG-Academic-Quality@warwick.ac.uk for final sign-off by the Chair)</p>
6.5	MA1	PGT	Computer Programming	Margaret Low	6.5.a	NA – existing module	<p>Approved subject to corrections being addressed (corrected version to be emailed to WMG-Academic-Quality@warwick.ac.uk for final sign-off by the Chair)</p>

8. Updates from Quality Process and Other Task and Finish Groups

TFG	Type	LTC when the group was formed	Group Lead	LTC Rep	Group Members	RECEIVED/REPORTED	RESOLVED:
Role Definition	Quality Process	Jan-18	MGL	MGL	MGL, AHC, GT, GK, JMN, Steve Maggs	CONSIDERED: 7.1 – Management teaching role outlines for WMG	RESOLVED: <ul style="list-style-type: none"> RC and JMN would have a conversation about whether course leader is responsible for OS as well as FT/PT UK. ACTION RC/JMN A concern about opportunity for people to represent WMG on committees outside of Programme Director role would be referred to Jane Coleman. ACTION KN Approved subject to corrections being addressed (corrected version to be emailed to WMG-Academic-Quality@warwick.ac.uk for final sign-off by the Chair), noting that the RC/JMN conversation would need to be resolved first and that the guidance must not be published until a course leader meeting and tutor briefing had ensured staff in these positions were aware of the descriptions.
Exam Board Processes	Quality Process	Jan-18	JJ	JJ	HEN, GT, MP, JMN, JJ	REPORTED: That the last meeting was held on 23 November and this was reported at the last LTC; That there had been no meetings since.	RESOLVED: That the group would reform in accordance with minute 5.
Dissertation Reviews	Quality Process	Sep-18	RC	RC	TBC	REPORTED: First meeting to be 5 February.	
Quality Handbook	Quality Process	Apr-18	AHC	AHC	AHC, JJ, MGL, JMN, GT, AE, RC, Stuart	REPORTED: <ul style="list-style-type: none"> That there would be a meeting held w/c 4 February to review actions from last meeting; 	

					Barnes, Kurt Debattista, KN, Julia Fan	<ul style="list-style-type: none"> That there were no major developments as yet (still early stages) 	
Ethical Approval of Projects	Quality Process	Sep-18	KN	KN	Stewart Birrell, Tanya Carey, Nikki Knowles, GT, David Wright	REPORTED: That the TFG had not met since last LTC but that a meeting was planned for 5 February.	
Absence Policy	Quality Process	Aug-18	GT	GT	GT, JMN, MGL, KN, MJ	REPORTED: That the group was waiting for the final feedback from FT, OS feedback having been provided just before the LTC met.	
Tutors Training Need	Quality Process	No-18	JJ	JJ	Rachel Edwards, Jane Coleman, GK, Jane Marshall, MP, Morag Malins, Tanya Carey, JMN, Lauren Schrock, David Wright, AHC , JJ, MGL	REPORTED: That the first meeting was held on 14 December and there were following Notes & Actions: <ul style="list-style-type: none"> To write a policy statement based around a commitment from staff and WMG to attend and provide training in appropriate areas. Based on principle of "Passport to Success" as used in schools To identify and provide information of induction training given to new staff To develop the idea of a "training week" to be set up in the summer. To define a departmental strategy to support the development of "communities of practise" to support staff. That the next meeting was scheduled for 8 February at 2pm in IMC 111	RESOLVED: That the scope of this group needed to be focussed towards getting some training developed urgently for the most urgent issues, rather than identifying all issues before addressing any. ACTION JJ
Resubmission of work to remedy failure for modules when some of	Quality Process	Sep-18	Antony Allen	AE	Peter Norris, Neil Davis, Antony Allen,	REPORTED: <ul style="list-style-type: none"> The group had met in Oct 2018 but not since; no agreements could be reached; AE was attempting to 	RESOLVED: <ul style="list-style-type: none"> That a short-term solution should be implemented, whereby module tutors inform programme director who authorises IMA resit if required during

LOs is practically based					Valentina Donzella	<p>reconvene a meeting to have another look.</p> <ul style="list-style-type: none"> An urgent operational solution was required. The TFG also needs to address the issue that the information is not administratively captured and therefore needs to be fed by the markers/tutors. 	<p>registration (on behalf of the Board, as is done for PMAs). ACTION AE to inform the TFG and implement a cascade of the information to appropriate marking staff</p> <ul style="list-style-type: none"> TFG to come up with long term solution noting that the information is not administratively captured and therefore needs to be fed by the markers/tutors. ACTION AE to inform the TFG
Taxonomy of words used in learning outcomes and questions	Quality Process	Nov-18	Vagelis Kitsos	AHC	AHC, Lauren Schrock	<p>CONSIDERED: 7.2 – PMA operational terms</p>	<p>RESOLVED: Approved subject to corrections being addressed (corrected version to be emailed to WMG-Academic-Quality@warwick.ac.uk for final sign-off by the Chair)</p>
Late Marking/Extensions (Marking Recovery Process)	Quality Process	Nov-18	MGL	MGL	AE, India Palmer, Liz Elliott, Morag, Angela Latham	<p>REPORTED: That</p> <ul style="list-style-type: none"> Webform for reporting of late (or anticipated late) marking developed and now in use. Module owners were asked to complete and this was helping to bring to their attention earlier/awareness of owner responsibility. RC made aware of all late marking in real time (about 4-5 markers that were expected to be late have been on time as a result so far) List of all due dates for full year (for FT Progs) was now available on website for owners (coordinators drawing their attention to it when needed) Next meeting would be to review how the above was working, so possibly not till March 	
Guidance on completing MA1 forms	Quality Process	Nov-18	MGL & AHC	MGL & AHC	TBC	<p>CONSIDERED: 7.3 – Annotated MA1</p>	<p>RESOLVED: • 7.3 – Approved subject to corrections being addressed</p>

						7.4 – Timetabling – module models	<p>(corrected version to be emailed to WMG-Academic-Quality@warwick.ac.uk for final sign-off by the Chair)</p> <ul style="list-style-type: none"> 7.4 – Rejected requiring resubmission to a future LTC meeting with tabs added for PT, UG and OS delivery modes (contacting appropriate staff for input); the consideration should be as a separate non-standing item as this was broader than the TFG’s remit but undoubtedly important. ACTIONS MGL to submit; LL to add to Mar agenda as its own item That the TFG was closed on the basis of these resolutions
E-marking guidance development	Quality Process	Nov-18	JJ	JJ	James Pennington, Michael Mortenson, Stuart Coles, Freeha Azmat, Matt Sokola, Tara Schiller, Chris Evans, JJ	<p>REPORTED: That the first meeting was held on 14 January and there were the following Notes & Actions:</p> <ul style="list-style-type: none"> To review staff use of e-marking via a questionnaire. Questions to be developed by members independently and consolidated at next meeting. Next meeting 11th Feb @10:00, IMC 108 	
Peer Observation Process (for lectures).	Quality Process	Dec-18	KN	KN	KN, RC, JJ, others TBC	<p>REPORTED: That this TFG was still to be set up</p>	<p>RESOLVED: That there was an urgent need for this group to be set up and to meet.</p>
2nd Marking	Quality Process	Dec-18	AHC	AHC	TBC	<p>REPORTED: That this TFG was not yet formed</p>	
LTC Agenda Planning	Quality Process	NA	JJ	JJ	JJ, AHC, LL	<p>CONSIDERED: 7.5 – Learning and Teaching Committee Agenda Generation</p>	<p>RESOLVED: Approved subject to corrections being addressed (corrected version to be emailed to WMG-Academic-Quality@warwick.ac.uk for final sign-off by the Chair), noting that a</p>

							standing item on feedback turnaround was required in addition and that MGL would need to feed into how that would be reported and when; noting also that dates of future meetings should be above the line.
Cyber programmes audit	Other	Aug-18	KN	KN	RC, MGL, JMN, Matt Sokola	REPORTED: <ul style="list-style-type: none"> • That a meeting to explore issues took place. • That RC and KN would meet with Tim Watson on 5 February to prepare for a full review. 	

9. Updates from Education Innovation Group (EIG) and Teaching Excellence Framework

Not reported this time

10. External Exam Reports

Not reported this time.

11. Any Other Business: Compensation in Accreditation Rules

REPORTED: (by the Academic Quality Officer)

That the Engineering Council had issued a rule that no more than 20 credits at PGT or 30 credits at UG could be compensated on an accredited degree, noting that compensation was the practice of allowing fail marks within a certain bracket (40s for PGT and 30s for UG) and that Warwick PGT regulations allowed 30 credits to be compensated; also noting that this would affect IET accreditation visits effective 2019/20 onwards.

CONSIDERED:

A concern raised by the Associate Director of Postgraduate Programmes that it appeared the Engineering Council were unaware of the majority of UK PGT courses being based around a 15 credit framework (as if only 20 credits could be compensated, that automatically meant only 15 credits on a course with 15 credit modules).

RESOLVED:

That the Director of Academic Quality would be asked to query with the IET/Engineering Council whether this decision has taken into account the wide usage of 15 credit module frameworks across the UK at PGT level.

ACTION JJ to make enquiries with the IET/Engineering Council about why 20 credits has been chosen for PGT when most UK PGT courses use bases of 15.

12. Any Other Business: Student Attendance at LTC

CONSIDERED:

A concern raised by the Chair about lack of responsiveness of student members to attendance requests for LTC, noting that there had not been Undergraduate representation for over a year.

RESOLVED:

- a. That the Academic Quality Team would ask the Teaching and Learning Officer (Undergraduate) to recruit some representatives that might be asked to serve on LTC.
ACTION LL to ask IP to recruit UG LTC reps
- b. That further thought could be given to this point by members, noting that staff in UG and PGT with responsibilities in the Student Experience area might be leveraged for ideas.

13. Dates of Future Meetings

REPORTED:

That the future meetings of the Committee for the 2018/19 academic year were as follows:

- Wednesday, 13 March 2019 from 12.00 to 16.00 in IMC108. (Papers deadline 27 February 2019): **note for cascade points** that this would be the absolute last opportunity for new or revised MA1s for the academic year 2019/20.

That dates for future meetings of the Committee were to be communicated later.

MATTERS TO RECEIVE AND APPROVE WITHOUT FURTHER DISCUSSION

Note: The following papers are considered non-controversial or can be accepted with a minimum of explanation. Members of the Committee may, however, ask for any of the following items to be transferred to the 'Matters for Consideration' element of the Agenda by contacting the Secretary prior to the meeting, via e-mail to wmg-academic-quality@warwick.ac.uk or by raising the item at the commencement of the meeting.

14. Matters Arising on the Minutes (Updates on completed, superseded, no longer required previous actions)

REPORTED:

Person Responsible	Action	Status
AHC	to copy "Project-Supervisor-History" query to new supervisor records database in order to check supervisory experience of past WMG staff.	Completed
AHC	to submit 'Taxonomy of words' paper for January 2019 meeting for a detailed discussion	Completed
AHC	to revise the Plagiarism Decision guidance	Completed (published)
IP	to contact Engineering Department to check their requirements for the 2nd Marking	Completed: The School of Engineering require all second marking to be done within the 20 day turnaround.
JJ	to send Antony Allen a reminder about TFG for Resubmission of work to remedy failure for modules when some of LOs is practically based	Completed
LL	to include timetabling into Agenda for the next LTC meeting	Completed
LL	to change the name of the 'Module Role Definitions' group to 'Role Definition' group.	Completed
LL	to disband Plagiarism Process group and to remove it from the TFG table.	Completed
LL	to add 2 nd Marking TFG to the TFG list	Completed
MGL	to investigate if it possible to set Tabula up to allow module owners to see marking allocated to other people on their module?	Completed: We think there is a way to do this but it would mean module owners would see the names of all students on the module, so would remove the anonymity for their own marking. Potential to do this perhaps for module owners who don't routinely mark?
MGL	to provide examples of timetabling for standard modules.	Completed
MGL & AHC	Establish a new TFG to prepare guidance on completing MA1 forms	Completed

15. Chair's Actions

REPORTED:

Action	Item	Level	Approved by		Minute reference
			Chair	Head of Education	
Approval	Revised MA1, Product Excellence Using Six Sigma, ES91M-10	PGT	JJ	RC	NA
Approval	Revised MA1, Information & Communications Technologies, ES915-10	PGT	JJ	RC	NA
Approval	Revised MA1, Research Methodology, ES9Y9-10	PGT	JJ	RC	NA
Approval	Revised MA1, Lean Operations Design and Management	PGT	JJ	RC	NA
Approval	Revised MA1, The Virtual Factory, ES91Z	PGT	JJ	RC	NA

16. Updates on New Courses

Nothing reported at this time

17. Ongoing Course/Module Task and Finish Groups (TFG)

REPORTED:

TFG	Type	LTC when the group was formed	Group Lead	LTC Rep	Group Members
MSc Cyber Security Engineering (CSE)	Course	Aug-18	Peter Norris	KN	Peter Norris, Kath Garnett, Duncan Hine, KN
MSc International Technology Management (ITM)	Course	Sep-18	Angela Clarke	GK, AHC	Angela Clarke, GK, Cathy Fawcett, Teng Zhang, Clive Reynolds, Kim Stansfield, Dee Nicholls, Michael Mortenson, Steve Raynor, Edwina Jones, AHC
HOMS Degree Apprenticeship	Course	Nov-18	Sudi Lahiri	GT	GT, Sue Parr
BEng (Hons) Engineering – Degree Apprenticeship (Dyson)	Course	Dec-18	Matt Sokola	KN	Matt Sokola, Kevin Neailey, Matt Jones, (Freeha Azmat), Zeina Rihawi, Alaa Al Sebae, Mir Seyedebrahimi, Glenn Miles, Mohammad Nasr Esfahani, Alex Glazer
Design Thinking Module	Module	Jun-18	RC	RC	HEN, Mairi MacIntyre

18. Cascade Points

- The new LTC-approved guidance on conducting plagiarism panels has been published: <https://warwick.ac.uk/fac/sci/wmg/intranet/student/academic/plagiarism-panels>

19. Academic Quality Process Documents List with stability dates

REPORTED:

That the above list would be included later.

As at 29 January 2019

WMG LEARNING AND TEACHING COMMITTEE (LTC)

Minutes of the meeting of the Learning and Teaching Committee held on Wednesday, 13
March 2019, from 12.00 to 16.00, in IMC108.

Liubov Lobanova
Secretary of LTC

MINUTES

1. Attendance

Name	Role	Initials	Attendance
Aitken, James	Student representative, UG	JA	Apologies
Clark, Robin	Associate Director of Postgraduate Programmes, Head of Education (PG), Part Time PGT Programme Director and/or manager	RC	Apologies
Collins, Amy	Academic Quality Officer	AHC	Present
Er, Ahmet	Director of Full Time Programmes	AE	Present
Gaspar Zamora, Luciana	Student representative, PGT	LG	Apologies
Jones, Jeff	Chair , Director of Academic Quality	JJ	Present
Jones, Matt	Deputy Director of UG Programmes	MJ	Present
Knowles, Graeme	Convener of the Education Innovation Group	GK	Apologies
Kyei-Baffour, Elgin	Student representative, PGT	EK	Present
Langeveld, Maddie	Head of Administration (Teaching and Learning)	MGL	Present
Lobanova, Liubov	Secretary , Academic Quality Administrative Assistant,	LL	Present
Martin, Celine	Convener of the Pedagogic Interest Group	CM	Present
Murray, Sharon	Teaching and Learning Officer, OS Programmes	SM	Present
Neailey, Kevin	Director of Undergraduate Programmes (Quality & Governance)	KN	Present
Neal, Helen	PGT Exam Board Secretary	HEN	Present
Newton, Mike	Deputy Chair , Director of Overseas Programmes	JMN	Apologies
Pacelli, Nisia	Assessment Coordinator	NP	Present
Palmer, India	Teaching and Learning Officer, UG Programmes	IP	Present
Pinfold, Martyn	Full Time Programmes Manager	MP	Present
Taylor, Gareth	Professional & Executive Programmes Manager	GT	Present
In Attendance			
Lahiri, Sudakshina	For Item 8.1 only	SL	1pm
Griffin, Lee	For Item 8.3 only	LG	1.30pm
Mortenson, Michael	For Item 8.4 only	MM	1.30pm

2. Declaration of Conflicts of Interest

There were no conflicts of interests declared

3. Minutes

CONSIDERED:

The minutes of the meeting of the Learning and Teaching Committee held on 29 January 2019

RESOLVED:

That the minutes were a true and accurate record.

4. Matters Arising from the Minutes (Updates on previous actions)

Person Responsible	Action	REPORTED
Kevin Neailey	To refer a concern about opportunity for people to represent WMG on committees outside of Programme Director role to Jane Coleman.	Complete. KN verbally reported that there are very few formal positions within committees and the membership is determined by the role, however there are more opportunities available at the departmental level (e.g. participation in TFGs, helping to organise events, conferences etc.) Jane Coleman will bring this to OEG. NEW ACTION: JJ to contact HR asking them to write up a formal process about opportunity for people to represent WMG at the departmental level
Amy Collins	AHC to form a TFG to review the existing document about the 2nd marking process and to put together a requirements list for various programmes.	In progress: AHC to gather some appropriate academics into a TFG to review those processes and decide whether anything needs to change
India Palmer	IP to recruit UG LTC reps	Ongoing: recruited one UG Student Representative recently but they sent apologies for March-19 LTC due to a short notice
Maddie Langeveld	MGL to submit Timetabling- module models file with tabs added for PT, UG and OS delivery mods	Partly Complete (UK Delivery, not OS yet), See Item 6.1. MGL to complete the spreadsheet to OS models
Ahmet Er	AE to inform the TFG and implement a cascade of the information to appropriate marking staff : • That a short-term solution should be implemented, whereby module tutors inform programme director who authorises IMA resit if required during registration (on behalf of the Board, as is done for PMAs)	Complete. AE reported that he discussed the situation with course leaders and he is not anticipating any problems with remedy failure for PGT modules when some of LOs is practically based however some further discussions / involvement of the wider team is needed for UG modules.
	• That TFG to come up with long term solution noting that the information is not administratively captured and therefore needs to be fed by the markers/tutors.	Complete. The TFG will report its future progress under its TFG reports.
Mike Newton	JMN to ask OS ops team to forward any problematic feedback sheets they spot (re: Alignment of Learning Outcomes with Marking problems) to Mike Newton and Robin Clark	Complete. <i>Secretary comment</i> – JMN reported this action as complete after the meeting, but prior to the distribution of the minutes.

Person Responsible	Action	REPORTED
Robin Clark	RC to speak with Tony McNally in January 2019 about IPR for MSc projects and other research collaborations (To be reported further at March 2019 LTC)	Complete. JJ verbally reported that Tony McNally agreed that this is an important issues therefore LTC need to write a policy and get it ratified by OEG. This can then be written into external supervisors contracts.
	RC to speak to HR about the situations with publications of WMG students' work under external supervisors' names (To be reported further at March 2019 LTC)	NEW ACTION: JJ to write a policy about IPR for MSc projects and other collaborations
	RC to look into the issue of modules owned by the externals & to feed back to Academic Quality Officer by w/c 4 February 2019	Complete. AHC verbally reported that a few PGT modules are currently owned by external members of staff however, going forward no new external module owners will be assigned, therefore the problem should be sorted with time. NEW ACTION: IP to check the situation with external module owners on UG programme
Robin Clark & Mike Newton	RC and JMN to have a conversation about whether course leader is responsible for OS as well as FT/PT UK.	Carried Forward

5. Updates on Feedback Turnaround

Not reported this time.

6. Timetabling – Module Models

CONSIDERED:

6.1 Module Models for UK delivery

1. an approval of the document 6.1 and
2. the process for an approval of new models

It was noted that document 6.1 was a good representation of the current situation but the growing Degree Apprenticeship and Online Learning provision will lead to changes in module models, however, all substantial changes in module provision will require changes to MA1 forms, and therefore it will be presented for LTC approval. It was also noted that student experience and pedagogical point of view should also be taken into consideration when approving modules delivery models.

RESOLVED:

1. Document 6.1 was approved subject to adding a pedagogical rational

ACTION: CM to discuss the Module Models for UK delivery document at the Pedagogic Interest Group in order to add pedagogical rational to the document

2. The process for an approval of new module delivery models was approved as follows: an approval form for new models should be completed and submitted to LTC for an approval.

ACTION: MGL to draft a Module Delivery Model Approval Form

7. Task and Finish Group (TFG) Report to Learning and Teaching Committee (LTC)

CONSIDERED:

7.1 TFG Report to LTC - a draft reporting form that LTC could ask TFGs to complete

RESOLVED:

The TFG Report to LTC form was approved subject to corrections being addressed (corrected version to be emailed to wmg-academic-quality@warwick.ac.uk for final sign off by the Chair)

8. New Course/Module Proposals, Revisions & Discontinuation

REPORTED:

- 1 That JJ was asked what future WMG's plans (for the next 5 years) for course and module are, as this data is needed for the ARC bid.

RESOLVED:

ACTION: JJ will speak to Teng Zhang to obtain this information and will feedback to ARC

- 2 That the University is now in the pilot phase of its new online course and module approval systems and WMG have been asked to participate to check usability. It was proposed that we use the following to trial the system, and members are asked to consider which PGT and UG modules could be used.

RESOLVED:

To trial new module approval system on MA1s for two FACS modules

ACTION: JJ to advise FACS Module Owner that these modules have been selected for a trial of the new module approval system.

Min.	Doc type	Level	Course/Module(s)	Submitted by	Paper(s)	In-principle approval	Notes	RESOLVED:
8.1	DA for HOM	PG, Level 7	1. Healthcare Operational Management DA1 Form 2. External Assessor Report 3. MA1s for core modules: a) WM076-15 Leading Change in Healthcare b) WM087-15 Quality and Productivity in Health Service Systems c) MW00E-15 Introduction to Health Informatics d) WM00P-15 Epidemiological and Statistical Methods for Quality Improvement e) WM085-15 Operational Management and Clinical Systems Improvement f) WM00D-15 Electronic Health	Gareth Taylor	8.1.1 8.1.2 8.1.3a 8.1.3b 8.1.3c 8.1.3d 8.1.3e 8.1.3f		- DA is being launched in October 2019 -There are no changes to the MA1s but they are circulated to check as we'll need to provide them to the University	Rejected requiring resubmission to a future LTC; noted that all MAs also need to be amended to include a line about HOM DA in section 14

Min.	Doc type	Level	Course/Module(s)	Submitted by	Paper(s)	In-principle approval	Notes	RESOLVED:
			Records Systems g) WM00F-15 Resource Management in Healthcare Service Delivery h) MD990 Introduction to Health Economic (offered through the Warwick Medical School)		8.1.3g 8.1.3h			
8.2	New Course Proposal (2 pager)	PG, Level 7	P3M strand to the 'Senior Leader' DA	Jayne Redfern	8.2.1	Yes	Education Management Group (EMG) has given in-principle approval for the development of this Degree Apprenticeship and recommended that a TFG is set up for the P3M Degree Apprenticeship; MA1s for two modules, and DA1 and CA1 are being drafted by Jane Redfern, and will be available for fairly immediate review (but not available for review now); Jane also suggested the following people as participants: - Malcolm Wyatt, Client Development Manager	<ol style="list-style-type: none"> 1. To address LTC comments in the 2 pager document before sending it to Partnership Committee 2. To form TFG with Jayne Redfern as a leader and GT as a LTC representative noting that no externals should be part of TFG

Min.	Doc type	Level	Course/Module(s)	Submitted by	Paper(s)	In-principle approval	Notes	RESOLVED:
							at WMG (reports to Sue Parr) - Pf Darren Dalcher, Professor of Strategic Project Management at University of Lancaster (as the external expert) - Dr Peter Harpum, Visiting Professor at UCL and external tutor at WMG, as module leader for the two new modules - Dr Caroline Tite, Snr Teaching Fellow at WMG, as my Deputy	
8.3	Revised MA1	PG, Level 7	Financial Analysis and Control Systems, ES979-10	Nick Phillips	8.3.1	NA	The main change is to change the learning outcomes to ones that align better with M level learning outcomes, and to differentiate between the two modules more to justify the 15 credits of the new module.	Approved subject to corrections being addressed (corrected version to be emailed to WMG-Academic-Quality@warwick.ac.uk for final sign-off by the Chair)
	Revised MA1	PG, Level 7	Financial Analysis and Control Systems, WM909-15	Nick Phillips	8.3.2	NA		Approved subject to corrections being addressed (corrected version to be emailed to WMG-Academic-Quality@warwick.ac.uk for final sign-off by the Chair)
8.4	Revised MA1	PG, Level 7	Information Systems Management, ES916-10	Michael Mortenson	8.4.1	NA	No original MA1 on record. This form updates the wording of the learning objectives and additional details. In-module assignment given increased weighting	Approved subject to corrections being addressed (corrected version to be emailed to WMG-Academic-Quality@warwick.ac.uk for final sign-off by the Chair)

Min.	Doc type	Level	Course/Module(s)	Submitted by	Paper(s)	In-principle approval	Notes	RESOLVED:
8.5	Revised MA1	UG, Level 4	Applied Maths- I	Kevin Neailey	8.5.1	NA	The module was approved previously but there is a slight change in the assessment for the 2019/2020 year (the first year that the module runs).	Approved subject to corrections being addressed (corrected version to be emailed to WMG-Academic-Quality@warwick.ac.uk for final sign-off by the Chair)
	Revised MA1	UG, Level 6	Functional Systems, WM326-15	Kevin Neailey	8.5.2	NA	Introducing an In-Module Assessment (IMA) in order to encourage small group working, greater classroom interaction and to confirm understanding at the end of the module. No other aspects of the module have been changed.	Approved subject to corrections being addressed (corrected version to be emailed to WMG-Academic-Quality@warwick.ac.uk for final sign-off by the Chair)
8.6	Revised MA1	UG, Level 4	Electrical and Electronic Principles, WM102-15	Kevin Neailey	8.6.1	NA	Change in the assessment breakdown, in order to reduce the redundancy.	Approved subject to corrections being addressed (corrected version to be emailed to WMG-Academic-Quality@warwick.ac.uk for final sign-off by the Chair)
	Revised MA1	UG, Level 5	Instrumentation and Control, WM205-15	Kevin Neailey	8.6.2	NA	Updating the learning outcomes – adding a simulation exercise to reflect modern control practices; Revisiting the assessment structure	Approved subject to corrections being addressed (corrected version to be emailed to WMG-Academic-Quality@warwick.ac.uk for final sign-off by the Chair)
	Revised MA1	UG, Level 6	Mechatronics and Systems Control, WM311-15	Kevin Neailey	8.6.3	NA	Minor changes to the content, as some of the communication topics have moved to a new module WM327.	Approved subject to corrections being addressed (corrected version to be emailed to WMG-Academic-Quality@warwick.ac.uk for final sign-off by the Chair)

Min.	Doc type	Level	Course/Module(s)	Submitted by	Paper(s)	In-principle approval	Notes	RESOLVED:
							Modifications to learning outcomes based on the new content	
	Revised MA1	UG, Level 6	Networking, Infrastructure Communication and Interoperability of Systems, WM327-15	Kevin Neailey	8.6.4	NA	Learning outcomes are updated based on industry needs.	Approved subject to corrections being addressed (corrected version to be emailed to WMG-Academic-Quality@warwick.ac.uk for final sign-off by the Chair)
	Revised MA1	UG, Level 6	Sustainable Energy Systems, WM318-15	Kevin Neailey	8.6.5	NA	Considering employer needs, few learning outcomes are updated	Approved subject to corrections being addressed (corrected version to be emailed to WMG-Academic-Quality@warwick.ac.uk for final sign-off by the Chair)
8.7	New / Revised	UG, Level 4	Engineering Thermofluids,	Matt Jones	8.7.1	NA	One of Dyson's modules. Not run yet. Minor changes to the content and the learning outcomes Change of the Module leader	Approved subject to corrections being addressed (corrected version to be emailed to WMG-Academic-Quality@warwick.ac.uk for final sign-off by the Chair)
	Revised	UG, Level 5	Control Theory and its Application, WM213-15	Matt Jones	8.7.2	NA	Changes in learning outcomes, some changes in the content. Increasing the exam time to 3 hours. Change of Module leader.	Approved subject to corrections being addressed (corrected version to be emailed to WMG-Academic-Quality@warwick.ac.uk for final sign-off by the Chair)
	Revised	UG, Level 5	Electrical and Electronic Application, WM212-15	Matt Jones	8.7.3	NA	Minor changes in learning outcomes. Increasing the exam time to 3 hours.	Approved subject to corrections being addressed (corrected version to be emailed to WMG-Academic-Quality@warwick.ac.uk for final sign-off by the Chair)

Min.	Doc type	Level	Course/Module(s)	Submitted by	Paper(s)	In-principle approval	Notes	RESOLVED:
	New/ Revised MA1	UG, Level 6	Agile Software Development	Kevin Neailey	8.7.4	NA	One of Dyson's modules. Not run yet	Approved subject to corrections being addressed (corrected version to be emailed to WMG-Academic- Quality@warwick.ac.uk for final sign-off by the Chair)
	New / Revised	UG, Level 6	Analogue Systems	Matt Jones	8.7.5	NA	One of Dyson's modules. Not run yet. Change in the Module Title Changes in assessment weighting, to be uniform with the other Y3 modules on the EDA programme. Minor changes in learning outcomes. Change of module leader.	Approved subject to corrections being addressed (corrected version to be emailed to WMG-Academic- Quality@warwick.ac.uk for final sign-off by the Chair)
	New/ Revised MA1	UG, Level 6	Cyber Risks in Organisations	Kevin Neailey	8.7.6	NA	One of Dyson's modules. Not run yet	Approved subject to corrections being addressed (corrected version to be emailed to WMG-Academic- Quality@warwick.ac.uk for final sign-off by the Chair)
	New/ Revised MA1	UG, Level 6	Data Science & Machine Learning	Kevin Neailey	8.7.7	NA	One of Dyson's modules. Not run yet	Approved subject to corrections being addressed (corrected version to be emailed to WMG-Academic- Quality@warwick.ac.uk for final sign-off by the Chair)
	New	UG, Level 6	Electronics Manufacturing and Assembly	Matt Jones	8.7.8	NA	One of Dyson's modules. Not run yet	Approved subject to corrections being addressed (corrected version to be emailed to WMG-Academic- Quality@warwick.ac.uk for final sign-off by the Chair)
	New/ Revised MA1	UG, Level 6	Embedded Systems	Kevin Neailey	8.7.9	NA	One of Dyson's modules. Not run yet	Approved subject to corrections being addressed (corrected version to be emailed to WMG-Academic- Quality@warwick.ac.uk for final sign-off by the Chair)

Min.	Doc type	Level	Course/Module(s)	Submitted by	Paper(s)	In-principle approval	Notes	RESOLVED:
								Quality@warwick.ac.uk for final sign-off by the Chair)
	New / Revised	UG, Level 6	Energy Storage Systems	Matt Jones	8.7.10	NA	One of Dyson's modules. Not run yet Changes in assessment weighting, to be uniform with the other Y3 modules. Minor changes in learning outcomes. Change of module leader	Approved subject to corrections being addressed (corrected version to be emailed to WMG-Academic-Quality@warwick.ac.uk for final sign-off by the Chair)
	New/ Revised MA1	UG, Level 6	Internet of things	Kevin Neailey	8.7.11	NA	One of Dyson's modules. Not run yet	Approved subject to corrections being addressed (corrected version to be emailed to WMG-Academic-Quality@warwick.ac.uk for final sign-off by the Chair)
	New / Revised	UG' Level 6	Manufacturing and Metrology	Matt Jones	8.7.12	NA	One of Dyson's modules. Not run yet. Changes in assessment weighting, to be uniform with the other Y3 modules. Due to company requirements, changes in: - module title, - learning outcomes, - contents.	Approved subject to corrections being addressed (corrected version to be emailed to WMG-Academic-Quality@warwick.ac.uk for final sign-off by the Chair)
	New / Revised	UG, Level 6	Signal Processing	Matt Jones	8.7.13	NA	One of Dyson's modules. Not run yet. Changes in assessment weighting, to be uniform with the other Y3 modules.	Approved subject to corrections being addressed (corrected version to be emailed to WMG-Academic-Quality@warwick.ac.uk for final sign-off by the Chair)

Min.	Doc type	Level	Course/Module(s)	Submitted by	Paper(s)	In-principle approval	Notes	RESOLVED:
							Minor changes in learning outcomes. Change of module leader.	
	New/ Revised MA1	UG' Level 6	Software Development for Engineers	Kevin Neailey	8.7.14	NA	One of Dyson's modules. Not run yet	Approved subject to corrections being addressed (corrected version to be emailed to WMG-Academic-Quality@warwick.ac.uk for final sign-off by the Chair)
	New/ Revised MA1	UG, Level 6	Systems & Network Architecture	Kevin Neailey	8.7.15	NA	One of Dyson's modules. Not run yet	Approved subject to corrections being addressed (corrected version to be emailed to WMG-Academic-Quality@warwick.ac.uk for final sign-off by the Chair)
	New / Revised	UG, Level 6	Systems Modelling & Control	Matt Jones	8.7.16	NA	One of Dyson's modules. Not run yet. Changes in assessment weighting, to be uniform with the other Y3 modules. Minor changes in learning outcomes. Change of module leader.	Approved subject to corrections being addressed (corrected version to be emailed to WMG-Academic-Quality@warwick.ac.uk for final sign-off by the Chair)
	New/ Revised MA1	UG' Level 6	Vision & Processing	Kevin Neailey	8.7.17	NA	One of Dyson's modules. Not run yet	Approved subject to corrections being addressed (corrected version to be emailed to WMG-Academic-Quality@warwick.ac.uk for final sign-off by the Chair)

9. Updates from Quality Process and Other Task and Finish Groups

Not reported this time.

10. Updates from Education Innovation Group (EIG) and Teaching Excellence Framework

REPORTED: (by the Convener of the Pedagogic Interest Group)

That PIG recently approved 14 WMG Summer Pedagogical Research Internships

11. Academic Quality Processes Due for Review

Not considered this time

12. External Exam Reports (ONLY June & January LTC)

Not reported this time

13. Any Other Business

a. Submission to LTC: timescales

CONSIDERED:

A request from the Academic Quality Officer that LTC agree a general deadline for course/modules approval paperwork submission for course/modules to run in a given academic year. For example, modules to run in one academic year must come to the March LTC of the previous academic year in order to meet the central Easter deadline. It is suggested that the equivalent deadline for courses (new or revised) could be 18 months ahead – i.e. the March meeting of the academic year that is two years ahead of the proposed course start/change date.

A concern was raised for PT team as due to commercial reasons this could be a problem for PT closed programmes and it was agreed that more urgent approval could be done by an exception in these cases. It was also noted that two years' lead time is required for preparation of prospectus

RESOLVED:

ACTION: AHC to write a guidance on deadlines for submission of paperwork for LTC.

b. LTC reviewing of papers workload

CONSIDERED:

A verbal proposal to form an Approval Panel, a LTC Sub-Group for dealing with the detail of course/module approvals, with an authority to approve modules/courses and reporting it to LTC; it was proposed that the panel should consist of Admin, Academic and Proofreading sub-teams. The panel will have a frequent meetings at peak times.

RESOLVED:

To trial an introduction of an approval panel in advance for May 2019 LTC.
ACTION: Academic Quality Team to plan the first Approval Panel as part of preparation to May LTC.

c. TEG priorities for enhancement

REPORTED by JJ:

That TEG agreed the following priorities for enhancement:

1. Implementing Course and Module Review as a means for facilitating the holistic review and improvement of module design and delivery, and achieving greater clarity on roles and responsibilities.
2. Maximising the impact of student feedback, including through module evaluation, in enhancing the quality of the student learning experience, and the awareness students have of this impact.
3. Evolving and implementing plans for peer observation across WMG and in collaboration with the School of Engineering, with a view to the first observations taking place in early 2019/20.
4. Consistently implementing the new assessment feedback form and approaches to ensuring a timely turnaround so that students across all courses benefit from quality feedback within 20 days of submission.
5. Re-doubling efforts to reduce the levels of plagiarism and cheating, including through consideration of a greater variety and authenticity of assessment methods.
6. Reviewing the structure of courses, their modules and the pattern of delivery

d. Appointment of a leader for the TFG around resubmission of practical learning outcomes.

CONSIDERED:

A request to change a leader for the TFG around resubmission of practical learning outcomes.

RESOLVED:

AE agreed to lead the TFG around resubmission of practical learning outcomes.

e. Staff Away Day.

REPORTED by JJ:

That a teaching away day is scheduled for 1 July 2019. WMG teaching and admin staff will be invited. There is a space for 180 attendees booked. White boards will be put up in staff areas in various departmental buildings during May to collect comments in order to decide which workshops to run during the day.

f. Learning and Teaching Newsletter.

REPORTED by JJ:

That we are Academic Quality team are planning a production of a Learning and Teaching newsletter and that the first letter will be issued after the Away Day.

g. Anonymous marking and in-module marks.

CONSIDERED:

A question about anonymous marking and alignment of IMA and PMA marks issues was raised by AE.

REPORTED by JJ:

That currently IMA marks are returned to the office as a list of marks against names and we are currently investigating some options on how to make it easier for the office to send the list of IMA marks against ID numbers to the tutors together with the control sheet

h. Marks for effort and presentation.

CONSIDERED:

A question about big variations in allocation of marks for effort and presentation was raised by AE.

REPORTED by JJ:

That one of TFGs is looking at developing a new Marking Grid for PMAs with no breakdown for comprehension, presentation and effort, in a similar way to the Project Marking Grid.

i. Devaluation of Merits.

REPORTED by AE:

That it seems that it became much easier to achieve degree with Merit and probably we should reconsider our criteria

KN raised a question if the criteria for a Merit are a part of Regulations or part of Exam Board Conventions.

RESOLVED:

Action: AHC to check with Teaching Quality if we are allowed to change WMG criteria for Merits

j. Oncoming Course & Modules Review.

REPORTED by AHC:

That in April 2019 Academic Quality Team will send an information to Course Leaders/Module Owners as part of the preparation to the review.

k. Degree Apprenticeship programme representation at LTC.

CONSIDERED:

A request for more Degree Apprenticeship representation on LTC.

RESOLVED:

Action: LL to invite Sue Parr to the next LTC meeting

l. UG External Examiners reports timing.

REPORTED by IP:

That UG External Examiners reports are received at different time compared to PGT programme

RESOLVED:

UG Reports to be reported (below the line) to the nearest LTC after the reports are received

REPORTED by IP:

That there is no UG Exam Board representation at LTC

RESOLVED:

ACTION: Academic Quality Team to discuss if UG Exam Board representation at LTC is necessary

m. Modules failed due to failing in-module assessment (IMA).

Student Representative raised a concern that if IMA is failed and because of this the module have to be resubmitted, the final mark is capped at 50%

It was clarified that to pass the module students should demonstrate that they met all learning outcomes. Currently, if IMA is failed, all Learning Outcomes are recovered through PMAs, however, all resubmissions are capped at the minimum pass grate (50% for MSc students) and this is a University requirement.

14. Dates of Future Meetings

REPORTED:

That the future meetings of the Committee for the 2018/19 academic year are as follows:

- Thursday, 9 May 2019 from 12:00 to 16:00 in IMC 108
- Thursday, 20 June 2019 from 12:00 to 16:00 in IMC 108
- Thursday, 8 August 2019 from 12:00 to 16:00 in IMC 108

MATTERS TO RECEIVE AND APPROVE WITHOUT FURTHER DISCUSSION

Note: The following papers are considered non-controversial or can be accepted with a minimum of explanation. Members of the Committee may, however, ask for any of the following items to be transferred to the 'Matters for Consideration' element of the Agenda by contacting the Secretary prior to the meeting, via e-mail to wmg-academic-quality@warwick.ac.uk, or by raising the item at the commencement of the meeting.

15. Matters Arising on the Minutes (Updates on completed, superseded, no longer required previous actions)

Person Responsible	Action	Status
Amy Collins	AHC to contact all recorded module owners to check if they are aware that they are module owners	Complete
Gareth Taylor	GT to ask PT team to forward any problematic feedback sheets they spot (re: Alignment of Learning Outcomes with Marking problems) to Gareth and Robin Clark	Complete
Jeff Jones	JJ to refer the long term solution to the issue around learning outcomes being passed to pass the module back to the TEF TQLE group as a follow-up to their development of the new feedback form	Complete
	JJ to make sure that Tutor Training Need group focuses towards getting some training developed urgently for the most urgent issues, rather than identifying all issues before addressing any	Complete
	JJ to make enquiries with the IET/Engineering Council about why 20 credits has been chosen for PGT when most UK PGT courses use bases of 15.	Complete
Liubov Lobanova	LL to add Timetabling to March-19 agenda as its own item	Complete
	LL to close 'Guidance on completing MA1 forms' TFG	Complete
	LL to ask IP to recruit UG LTC reps	Complete
Maddie Langeveld	MGL to ask FT ops team to forward any problematic feedback sheets they spot (re: Alignment of Learning Outcomes with Marking problems) to Ahmet Er, Martyn Pinfold and Robin Clark	Complete
Robin Clark & Amy Collins	RC and AHC to write email to tutors highlighting the issue of learning outcomes needing to be met in order to pass a module and this apparently not being understood by tutors based on review of some feedback sheets	Complete

16. Chair's Actions

Action	Item	Level	Approved by		Minute reference	Other notes
			Chair	Head of Education		
Approval	New MA1: Composite Materials for Automotive Applications	PGT	JJ	RC	Nov-18, 6.2.1	Waiting for the HOD signature
Approval	Revised Course: International Technology Management (ITM)	PGT	JJ	RC	Dec-18, 6.2.1	Sent to SPA 28/01/2019
Approval	New MA1: Emerging Technologies for Business	PGT	JJ	RC	Dec-18, 6.3.1	Sent to SPA 28/01/2019
Approval	New MA1: Managing Innovation and Change	PGT	JJ	RC	Dec-18, 6.3.2	Sent to SPA 28/01/2019
Approval	New MA1: Systems Thinking & Systems Engineering	PGT	JJ	RC	Dec-18, 6.3.3	Sent to SPA 28/01/2019
Approval	New MA1: Technology Management	PGT	JJ	RC	Dec-18, 6.3.4	Sent to SPA 28/01/2019
Approval	Annual Review Report: BCU Pre-Master Programme	NA	JJ		Jan-19, 6.1.a	
Approval	Revised CA1 & corresponding MA1s: eBusiness Management (eBM); <ul style="list-style-type: none"> • Cloud Native Computing (CNC); • Digital Consultancy (DC); • Digital Marketing Strategy and Management (DSSM); • eBusiness Fundamentals (eBF); • eCustomer Relationship Management (eCRM); • Emerging Digital Technology (EDT); • Enterprise eCommerce Solutions (EeS) 	PGT	JJ	RC	Jan-19, 6.2.a 6.2.b 6.2.c 6.2.d 6.2.e 6.2.f 6.2.g 6.2.h	Sent to SPA 20/02/2019

Action	Item	Level	Approved by		Minute reference	Other notes
			Chair	Head of Education		
Approval	Revised MA1: Business and Operations Design	PGT	JJ	RC	Jan-19, 6.4.a	Sent to Spa 07/03/2019
Approval	Revised MA1: Computer Programming, ES9H5-10	PGT	JJ	RC	Jan-19, 6.5.a	Sent to SPA 04/02/2019
Approval	Academic Guidance: PMA Operational Terms	NA	JJ		Jan-19, 7.2	
Approval	Academic Guidance: MA1 annotated with WMG guidance	NA	JJ		Jan-19, 7.3	
Approval	Revised MA1: International Joint ventures, ES982-10	PGT	JJ	RC	NA	Sent to SPA 28/01/2019
Approval	Academic Guidance: Issue1 draft A Guidance for approving markers	NA	JJ		NA	
Approval	Academic Guidance: Issue 1 Draft A Process for Approval: New/Revised Modules	NA	JJ		NA	

17. Updates on New Courses

Nothing to report at this time

18. Ongoing Course/Module Task and Finish Groups (TFG)

TFG	Type	LTC when the group was formed	Group Lead	LTC Rep	Group Members
MSc Cyber Security Engineering (CSE)	Course	Aug-18	Peter Norris	KN	Peter Norris, Kath Garnett, Duncan Hine, KN
MSc International Technology Management (ITM)	Course	Sep-18	Angela Clarke	GK, AHC	Angela Clarke, GK, Cathy Fawcett, Teng Zhang, Clive Reynolds, Kim Stansfield, Dee Nicholls, Michael Mortenson, Steve Raynor, Edwina Jones, AHC
HOMS Degree Apprenticeship	Course	Nov-18	Sudi Lahiri	GT	GT, Sue Parr
BEng (Hons) Engineering – Degree Apprenticeship (Dyson)	Course	Dec-18	Matt Sokola	KN	Matt Sokola, Kevin Neailey, Matt Jones, (Freeha Azmat), Zeina Rihawi, Alaa Al Sebae, Mir Seyedebrahimi, Glenn Miles, Mohammad Nasr Esfahani, Alex Glazer
Design Thinking Module	Module	Jun-18	RC	RC	HEN, Mairi MacIntyre

19. Cascade Points

That the Chair, Secretary and Academic Quality Officer agreed that the following updates should be cascaded to learning and teaching staff:

- New Academic Guidance Stylistic and Formatting Rules was published:
<https://warwick.ac.uk/fac/sci/wmg/intranet/student/academic/aq-guide/intro/aq-style>
- Process for Approval: New/Revised modules was published:
<https://warwick.ac.uk/fac/sci/wmg/intranet/student/academic/aq-guide/courseregs/module-approval>
- WMG Annotated MA1 (guidance on completion) was published
<https://warwick.ac.uk/fac/sci/wmg/intranet/student/academic/aq-guide/courseregs/wmg-annotated-ma1>
- Teaching away day is scheduled for 1 July 2019. WMG teaching and admin staff will be invited. More details to be communicated later.

20. Academic Quality Process Documents List with stability dates

Title	Original Author	Last Author	Approving Committee	Status	Date Created	Date Last Reviewed	Last-Revision Date	Date Approved	Version Number	Section for AQ-guide	Stability-Date
Plagiarism Panel Guidance	Martyn Pinfold	Amy Collins	LTC	Approved	01/05/2018	30/10/2018	26/11/2018	12/12/2018	Issue 1 Approved	Discipline	12/12/2019
Authorisation of module exemptions for students (Academic guidance)	Amy Collins	Amy Collins	LTC	Approved	01/06/2018	07/08/2018	21/08/2018	21/08/2018	Issue 1 Approved	Course and Module Regulations and Approvals	21/08/2019
Course regulations change request form (word copy)	Amy Collins	Amy Collins	LTC	Approved	01/07/2018	07/08/2018	01/07/2018	07/08/2018	Issue 1 Approved	Course and Module Regulations and Approvals	07/08/2019
Guidance on Course Regulations	Amy Collins	Amy Collins	LTC	Approved	01/07/2018	07/08/2018	01/07/2018	07/08/2018	Issue 1 Approved	Course and Module Regulations and Approvals	07/08/2019
Learning and Teaching Committee Task-and-Finish Group Rules	Amy Collins	Amy Collins	LTC	Approved	15/10/2018	30/10/2018	26/11/2018	30/10/2018	Issue 1 Approved	Teaching Quality Committees	30/10/2019
Module role outlines	Maddie Langeveld	Amy Collins	LTC	Approved	01/07/2018	30/10/2018	26/11/2018	30/10/2018	Issue 1 Approved	Staff Roles	30/10/2019
Suspected Cheating in a University Test – WMG PROCESS	Jeff Jones	Amy Collins	AQSC	Approved	28/11/2017	01/07/2018	30/07/2018	08/10/2018	Issue 2 Approved	Discipline	08/10/2019
Triage process for acceptance of external project supervisors	Jeff Jones	Amy Collins	LTC	Approved	01/07/2018	07/08/2018	21/08/2018	21/08/2018	Issue 2 Approved	Staff Roles	21/08/2019

Title	Original Author	Last Author	Approving Committee	Status	Date Created	Date Last Reviewed	Last-Revision Date	Date Approved	Version Number	Section for AQ-guide	Stability-Date
WMG Annual Course Review Process	Robin Clark	Amy Collins	LTC	Approved	01/07/2018	20/09/2018	30/10/2018	29/10/2018	Issue 2 Approved	Monitoring and Review	29/10/2019
Triage process for increase in FT Masters external project supervisors' project number allowance	Jeff Jones	Amy Collins	LTC	Approved	01/09/2017	30/10/2018	26/11/2018	30/10/2018	Issue 2 Approved	Staff Roles	30/10/2019
MSc Programmes Module Assessment Report	Jeff Jones	Jeff Jones			13/08/2018		13/09/2018		none attributed	Assessment Processes	
Guidance for Approving Markers	Maddie Langeveld	Maddie Langeveld	LTC	Approved	24/01/2019	25/01/2019	24/01/2019	25/01/2019	Issue 1 Approved	Staff Roles	25/01/2020
Masters level post-module assignment operational terms	Vagelis Kitsos	Amy Collins	LTC	Approved	05/11/2018	29/01/2019	05/02/2019	06/02/2019	Issue 1 Approved	Assessment Processes	06/02/2020
MA1 annotated with WMG guidance	Amy Collins	Amy Collins	LTC	Approved	15/01/2019	29/01/2019	05/02/2019	07/02/2019	Issue 1 Approved	Course and Module Regulations and Approvals	07/02/2020

21. Quality Assuring in Higher Education in Apprenticeships

RECEIVED:

21.1 Quality Assuring Higher Education in Apprenticeships.

The document was published by QAA (July 2018) and could provide a good checklist when LTC considers new programmes

As at 13 March 2019

WMG LEARNING AND TEACHING COMMITTEE (LTC)

Minutes of the meeting of the Learning and Teaching Committee held on Thursday, 9 May 2019 from 12.00 to 15.30, in IMC108.

Liubov Lobanova
Secretary of LTC

MINUTES

1. Attendance

Name	Role	Initials	Attendance
Aitken, James	Student representative, UG	JA	Present
Clark, Robin	Associate Director of Postgraduate Programmes, Head of Education (PG), Part Time PGT Programme Director and/or manager	RC	Present (from 2.30pm)
Collins, Amy	Academic Quality Officer	AHC	Present
Er, Ahmet	Director of Full Time Programmes	AE	Present
Gaspar Zamora, Luciana	Student representative, PGT	LG	Apologies
Jones, Jeff	Chair , Director of Academic Quality	JJ	Present
Jones, Matt	Deputy Director of UG Programmes	MJ	Apologies
Knowles, Graeme	Convener of the Education Innovation Group	GK	Present
Kyei-Baffour, Elgin	Student representative, PGT	EK	Apologies
Langeveld, Maddie	Head of Administration (Teaching and Learning)	MGL	Present
Lobanova, Liubov	Secretary , Academic Quality Administrative Assistant,	LL	Present
Martin, Celine	Convener of the Pedagogic Interest Group	CM	Present
Murray, Sharon	Teaching and Learning Officer, OS Programmes	SM	Present (until 2.30pm)
Neailey, Kevin	Director of Undergraduate Programmes (Quality & Governance)	KN	Present
Neal, Helen	PGT Exam Board Secretary	HEN	Present
Newton, Mike	Deputy Chair , Director of Overseas Programmes	JMN	Apologies
Pacelli, Nisia	Assessment Coordinator	NP	Present
Palmer, India	Teaching and Learning Officer, UG Programmes	IP	Present
Pinfold, Martyn	Full Time Programmes Manager	MP	Present
Taylor, Gareth	Professional & Executive Programmes Manager	GT	Present
In Attendance			
Sue Parr		SP	Apologies
Tanya Carey		TC	Present

2. Declaration of Conflicts of Interest

There were no conflicts of interests declared

3. Minutes

CONSIDERED:

The minutes of the meeting held on 13 March 2019

RESOLVED:

That the minutes were a true and accurate record.

4. Matters Arising from the Minutes (Updates on previous actions)

Person Responsible	Action	REPORTED
Amy Collins	AHC to chase up Teaching Quality on query if we are allowed to change WMG criteria for Merits	In Progress
Celine Martin	CM to discuss the Module Models for UK delivery document at the Pedagogic Interest Group in order to add pedagogical rational to the document	In Progress: the module model was discussed at PIG meetings. CM to circulate the document with PIG's comments and recommendations to LTC.
India Palmer	IP to recruit UG LTC reps	Complete
Jeff Jones	JJ to contact HR asking them to write up a formal process about opportunity for people to represent WMG at the departmental level	In Progress: HR are looking at this and they will get back to JJ later this month.
	JJ to write a policy about IPR for MSc projects and other collaborations	Superseded by a new action: JJ reported that this is very complex issue therefore we need to put together a group to look at this and then will need to go to the University IPR team for checking and final approval. NEW ACTION: JJ to form IPR Policy for MSc Projects TFG. TC volunteered to participate
	JJ to write a draft WMG policy around the dignity at Warwick policy	Complete. NEW ACTION: JJ to pass the WMG policy around the dignity at Warwick policy to TFG for Quality Handbook and also to HR
Amy Collins	MGL to write an administrative process for the situations where a tutor is not available (including project supervision and teaching/marking/ownership of modules)	Carried Forward: MGL passed to Academic Quality Officer as more suitable for this person to take this action
Robin Clark & Mike Newton	RC and JMN to have a conversation about whether course leader is responsible for OS as well as FT/PT UK.	Carried Forward

5. Updates on Feedback Turnaround

Not reported this time.

6. Course Structure Changes

REPORTED:

- a. That it has recently come to light that WMG's standard practice of awarding PgDip is not correct and is contrary to university rules, therefore, in order to provide an exit point for student at PgDip level we need to reconfigure our course structures so that the taught component allows them to come out with 120 CATS;
- b. That we need to do this quite quickly to meet university regulation and this will, of course, have major implication across all out PGT provision;
- c. That before we embark on the revision we need to examine the different risk factors and likely consequences of doing this.

SUMMARY OF DISCUSSION:

To focus the discussion a printed *Course Structure Change Mind Map* was distributed by the chair and is circulated with these minutes. (Attachments 1 and 2). It was clarified that an interim solution for ITM and eBM courses is required for 19/20 academic year and that the rest of the course should be restructured for 20/21 academic year.

Various interim solutions were proposed briefly discussed, i.e.:

- temporary to remove PgDip option from ITM and eBM course regulations until the permanent solution is agreed
- to introduce 60 CATS project and additional 30 CATS of modules (15 CATS REME module plus other additional 15 CATS module)
- 60 CATS module plus one 30 CATS module (to include REME and Literature Review)
- to offer students an opportunity to complete additional 30 CATS of modules in order to let them have 120 CAT of modules and exit with PgDip if they failed the project
- to offer students an opportunity to complete additional 30 CATS (by introducing a completely new 30 CATS module) in order to let them have 120 CAT of modules and exit with PgDip if they failed the project

However, no decision about interim solution for ITM and eBM courses had been made at the meeting.

A proposal to add a compulsory REME module to all courses was also discussed as a long term solution to the problem. It was clarified that it would be a standard PMA based module. Various potential issues i.e. problems with scheduling, resources and potential problems for PT & OS students, in particular students enrolled into joint degrees with Hong Kong Polytechnic University, were noted. It was proposed by GK to call the new module 'Personal Development' instead of 'REME', as this could minimise the potential issues of adding this module to PT programmes.

The complexity and huge effect of the course change structure on all WMG PGT provision were noted and it was agreed that focus groups should be formed to investigate all possible options; key people were identified to look at the main areas affected by the course changes:

Area	Person
Resources	MGL, IP, AE, TC, SM, GT
Regulations/Documentation/Operations/Courses	AHC, SM, MJ, JJ, HEN

Project & REME	TC, RC, MP
Modules	CM, GK
Student Experience	MP, TC, Nicola Knowles; agreed to include student representatives into this group at a later stage

RESOLVED:

Action: MGL, AHC, JJ & RC to discuss an interim solution to the course structure changes

Action: Focus groups (as per table above) to look at separate areas of various possible course models to identify potential problems and solutions and the potential effect of the course structure change to their area.

7. Timetabling – Module Models

CONSIDERED:

7.1 Module Models for OS delivery

7.2 Delivery Module Approval - DRAFT page can be found in 'modules' within Academic Guidelines or direct at

<https://warwick.ac.uk/fac/sci/wmg/intranet/student/academic/modules/delivery/>

RESOLVED:

1. Document 7.1 was approved.
2. Document 7.2 was approved subject to the recommended amendments (for which MGL took notes)
3. Agreed that the location of the final version of the form should be changed, as the current location was within PGT only area of the Intranet

8. WMG (and School of Engineering) coursework moderation procedures

CONSIDERED:

8.1 Issue 2 Draft B WMG (and School of Engineering) coursework moderation procedures

This document was submitted for LTC approval to document and clarify current practice across all programmes. It was explained that the previously approved document clarified rules, but did not clarify different programmes' practice, which we would be beneficial to tutors until those practices can be better aligned. It was noted that we were aware that there were issues with current practice and the Academic Quality Officer was in the process of setting up the TFG to look at this document and review/change this current process as necessary.

RESOLVED:

Document 8.1 was approved

9. Internal Exam Boards

CONSIDERED:

9.1 Proposal for WMG to hold interim Postgraduate Taught Exam Boards

The Learning and Teaching Committee was invited to:

- a. Approve this proposal
- b. Comment on any issues which need to be addressed prior to introduction of interim boards
- c. Note that the existing WMG Exam Board system in SharePoint is not designed to support interim boards as it was built with awarding boards in mind and has limited scope for further development; this proposal may require a different supporting system

RESOLVED:

Document 9.1 was approved, subject to recommended changes, to be used from the next academic year.

10. Courses approval timescales and process

CONSIDERED:

10.1 Issue 1 Draft A Process for Approval: New/Revised Courses

RESOLVED:

Document 10.1 was approved

11. Updates from Quality Process and Other Task and Finish Groups (OR the NEXT ITEM)

TFG	Type	LTC when the group was formed	Group Lead	LTC Rep	Group Members	RECEIVED/REPORTED/CONSIDERED	RESOLVED
Role Definition	Quality Process	Jan-18	MGL	MGL	MGL, AHC, GT, GK, JMN, Steve Maggs	RECEIVED: 11.1.1 REPORTED: that a separate version for UG programmes would be presented to the next LTC for a final approval	ACTION: <i>MGL to form a separate TFG for Research Degree Programmes Role Definition</i>
Exam Board Processes	Quality Process	Jan-18	JJ	JJ	HEN, GT, MP, JMN, JJ	RECEIVED: 11.2.1 REPORTED : <ol style="list-style-type: none"> 1. That a review of exam board practice in WMG and of the suggestions of the university wide review of assessment suggested that WMG needs to introduce interim boards and a paper had been submitted to LTC to propose this. 2. That the decisions process had been documented and this decision process had, in part, being encapsulated in the SharePoint system. 3. That there were some problems reported by two current external examiners who were not happy with the current workload/payments system 	ACTION: <i>LL to close down the Exam Board Processes TFG</i>
Academic Quality Guide	Quality Process	Apr-18	AHC	AHC	AHC, JJ, MGL, JMN, GT, AE, RC, Stuart Barnes, Kurt Debattista, KN, Julia Fan	RECEIVED: 11.3.1 CONSIDERED: Paper 11.3.2	Agreed to allow Academic Quality Guide TFG 6 more month to continue Paper 11.3.2 was approved

TFG	Type	LTC when the group was formed	Group Lead	LTC Rep	Group Members	RECEIVED/REPORTED/CONSIDERED	RESOLVED
Absence Policy	Quality Process	Aug-18	GT	GT	GT, JMN, MGL, KN, MJ	RECEIVED: Paper 11.4.1 CONSIDERED: Paper 11.4.2	Paper 11.4.2 was approved subject to recommended changes ACTIONS: LL to close down the Absence Policy TFG LL to publish the amended version of the Absence Policy LL to distribute the Absence Policy to TLOs to be included in Student Handbooks
Dissertation Reviews	Quality Process	Sep-18	RC	RC	TBC	REPORTED: that the group met twice and this TFG is ongoing.	
Ethical Approval of Projects	Quality Process	Sep-18	KN	KN	Stewart Birrell, Tanya Carey, Nikki Knowles, GT, David Wright	RECEIVED: Paper 11.5.1 REPORTED: Work in progress, a list of recommendations would be given to LTC in June for consideration	
Resubmission of work to remedy failure for modules when some of LOs is practically based	Quality Process	Sep-18	AE	AE	Peter Norris, Neil Davis, Antony Allen, Valentina Donzella	CONSIDERED: Paper 11.6.1	LTC was happy with AE's recommendations ACTIONS: AE to write the guidance on Resubmission of work to remedy failure for modules when some of LOs is practically based LL to close down the Resubmission of work to remedy failure for modules when some of LOs is practically based TFG

TFG	Type	LTC when the group was formed	Group Lead	LTC Rep	Group Members	RECEIVED/REPORTED/CONSIDERED	RESOLVED
Marking Grid for PMA	Quality Process	Sep-18	JJ	JJ	JJ, Karen Bradbury, Vagelis Kitsos, Adrian Watt, Andrea Latham, Lee Griffin, Morag Malins	<p>RECEIVED: 11.7.1</p> <p>REPORTED that:</p> <ol style="list-style-type: none"> 1. That a decision to remove presentation as separate mark items has been made; these will be rolled up into the single mark in a similar way to projects. 2. that headline grid topics have been decided "Comprehension & Analysis, Criticality & Presentation" 3. that a decision to map to number of LO achieved has been made 4. that a decision to add suggested feedback words for each level has been made and is being worked on 5. That descriptors for the columns are being developed. 	<p>ACTION:</p> <p><i>LL to rename 'Marking Grid for PMA' TFG to 'PGT Marking Grid for PMA'</i></p>
Tutors Training Need	Quality Process	Nov-18	JJ	JJ	Rachel Edwards, Jane Coleman, GK, Jane Marshall, MP, Morag Malins, Tanya Carey, JMN, Lauren Schrock, David Wright, ACH, JJ, MGL	<p>RECEIVED: 11.8.1</p> <p>REPORTED:</p> <ol style="list-style-type: none"> 1. that a training policy and a training agreement had been written and were currently with HR for checking 2. that training areas had been identified and investigation were underway to find what was available in WMG, the University or wider world in each area that JJ met with Dr.Peter Fossey, Academic Developer from Academic Development Centre and had attended a new course in constructive alignment; 3. that Dr Fossey was willing to come to WMG to carry out training in many areas 	

TFG	Type	LTC when the group was formed	Group Lead	LTC Rep	Group Members	RECEIVED/REPORTED/CONSIDERED	RESOLVED
						and JJ would make the necessary arrangements	
Late Marking/Extensions (Marking Recovery Process)	Quality Process	Nov-18	MGL	MGL	AE, India Palmer, Liz Elliott, Morag, Angela	RECEIVED: 11.9.1 REPORTED: 1. that web form was created to facilitate conversations; 2. the process was working as well as it could	ACTION: LL to close down the Late Marking/Extensions TFG
E-marking guidance development	Quality Process	Nov-18	JJ	JJ	James Pennington, Michael Mortenson, Stuart Coles, Freeha Azmat, Matt Sokola, Tara Schiller, Chris Evans, JJ	RECEIVED: 11.10.1 REPORTED: 1. that a review of methods currently used had been done 2. that these methods were now being tested by members to identify which were the "best" 3. that guidance is to be written by the next meeting	
Peer Observation Process (for lectures).	Quality Process	Dec-18	KN	KN	KN, RC, JJ, others TBC	RECEIVED: Paper 11.11.1 REPORTED: that the group would be working on the best way to implement peer observations guidelines	
2nd Marking	Quality Process	Dec-18	AHC	AHC	TBC	RECEIVED: Paper 11.12.1	

Cyber programmes audit	Other	Aug-18	KN	KN	RC, MGL, JMN	RECEIVED: Paper 11.13.1 REPORTED: that Clarification was needed of whether to pursue issues now or after the course and module review process operates in 2019.	ACTION: <i>To put the Cyber programmes audit TFG on hold until course/module review process is complete over the summer; to revisit in October 2019.</i>
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12. Updates from Education Innovation Group (EIG) and Teaching Excellence Framework (OR the PREVIOUS ITEM)

Not reported this time.

13. Academic Quality Processes Due for Review

Nothing considered this time.

14. External Exam Reports (ONLY June & January LTC)

Not reported this time.

15. Any Other Business

REPORTED:

a. Change to late penalties for 19/20

REPORTED:

That there would be a change to late penalties for 19/20: the penalty per working day late would be 5% across all UG and PGT (WVG UG are already at 5%, but PGT are at 3%)

16. Dates of Future Meetings

REPORTED:

That the future meetings of the Committee for the 2018/19 academic year are as follows:

Thursday, 20 June 2019 from 12:00 to 16:00 in IMC 108
Thursday, 8 August 2019 from 12:00 to 16:00 in IMC 108

MATTERS TO RECEIVE AND APPROVE WITHOUT FURTHER DISCUSSION

Note: The following papers are considered non-controversial or can be accepted with a minimum of explanation. Members of the Committee may, however, ask for any of the following items to be transferred to the 'Matters for Consideration' element of the Agenda by contacting the Secretary prior to the meeting, via e-mail to wmg-academic-quality@warwick.ac.uk, or by raising the item at the commencement of the meeting.

17. Matters Arising on the Minutes (Updates on completed, superseded, no longer required previous actions)

REPORTED:

Person Responsible	Action	Status
Amy Collins	AHC to form a TFG to review the existing document about the 2nd marking process and to put together a requirements list for various programmes	Complete
	AHC to write guidance on timeframes/deadlines for submission of course and module paperwork.	Complete. See Paper 10.1
AQ Team	Academic Quality Team to plan the first Approval Panel as part of preparation to May LTC	Complete
AQ Team	Academic Quality Team to discuss if UG Exam Board representation at LTC is necessary	Complete
India Palmer	IP to check the situation with external module owners on UG programme	Complete. Reported under Reserved Agenda
Jeff Jones	JJ to advise FACS Module Owner that these modules have been selected for a trial of the new module approval system	Complete
Jeff Jones	JJ will speak to Teng Zhang to obtain this information and will feedback to ARC	Superseded
Liubov Lobanova	LL to invite Sue Parr to the next LTC meeting	Complete
Maddie Langeveld	MGL to submit Timetabling- module models file with tabs added for PT, UG and OS delivery mods - Partly Complete (UK Delivery, not OS yet) MGL to complete the spreadsheet to OS models	Complete. See Paper 7.1

Person Responsible	Action	Status
Maddie Langeveld	MGL to draft a Module Delivery Model Approval Form	Completed: DRAFT done – page can be found in 'modules' bit within Academic Guidelines or direct at https://warwick.ac.uk/fac/sci/wmg/intranet/student/academic/modules/delivery/ See Paper 7.2

18. New Course/Module Proposals, Revisions & Discontinuation

RECEIVED:

a. Course Discontinuation Report

Min	Course Code	Full Course Title	Acronym	Centre	Level	Rationale
18.1	TWMS-H7A8	Postgraduate Taught Supply Chain and Logistics Management (Malaysia)	SC&LM MY	MY	PGT	This programme was taught for DRB HICOM employees in collaboration with National Defence University of Malaysia (NDUM); neither DRB or NDUM are interested in continuing the course
18.2	TWMS-H7B3	Postgraduate Taught Service Management and Design (Singapore)	SM&D SING	SI	PGT	This programme was authorized for Singapore but was never marketed or launched. Singapore have no capacity to add additional streams to their existing programme

REPORTED:

b. Name change of the recently approved THaWS and HaWSat in response to recommendation from accreditation body to :

- i. Digital Health Science (BSc Degree Apprenticeship)
- ii. Digital Health Science (BSc)
- iii. Digital Health Science (MSci)

RECEIVED:

- c. Minutes of WMG School of Engineering Courses and Modules Approval Committee (CMAC) where MA1 and CA1 changes for WMG degree courses in the School of Engineering were approved

RECEIVED:

- d. Approval Panel Report

Nothing to be reported this time

19. Chair's Actions

RECEIVED:

Chair's Actions Report:

Action	Item	Level	Approved by		Minute reference	Other notes
			Chair	Head of Education		
Approval	Academic Guidance: Academic Guidance Template - Issue 1 Draft B	NA	JJ	NA	NA	
Approval	Academic Guidance: Task and Finish Group (TFG) Report to Learning and Teaching Committee (LTC) - Issue 1 Draft B	NA	JJ	NA	7.1, March-19	
Approval	Academic Guidance: Academic Guidance Stylistic and Formatting Rules - Issue 1 Draft B	NA	JJ	NA	NA	
Approval	Academic Guidance Overseas Programmes Academic Conduct Panels – Issue 1 Draft A	PG	JJ	NA		A separate supplementary guidance document to the general WMG plagiarism document

Action	Item	Level	Approved by		Minute reference	Other notes
			Chair	Head of Education		
Approval	Academic Guidance Process for Approval: New/Revised Modules Issue 2 Draft A	NA	JJ	NA		Very small amendment to a quality document – a mentioning of Undergraduate Executive Committee was missed in the 2nd paragraph of the original issue (re: in-principle approval)
Approval	Academic Guidance Authorisation of module exemptions for students	NA	JJ	NA		A small tweak to academic guidance to clarify what applies with PGT and what with UG regarding module exemptions
Approval	Revised CA1: minor amendments to MSc in International Technology Management for Defence & Security	PG	JJ	NA	NA	Sent to the University Course Approvals
Approval	New DA1: Engineering Business Management (EBM) and Manufacturing Systems Engineering Management (MSEM).	PG	JJ	NA	Jan 2019 LTC, 6.3	Sent to DA Approvals
Approval	Revised MA1: Information Systems Management ES9I6-10	PG	JJ	RC	March 2019 LTC, 8.4.1	Sent to SPA
Approval	Revised MA1: Supply Chain Integration ES923-10	PG	JJ	RC	NA	Sent to SPA
Approval	Revised MA1: Engineering Mathematics WM104-15	UG	JJ	KN	NA	Sent to SPA
Approval	Revised MA1: Numerical Methods for Modelling WM201-15	UG	JJ	KN	NA	Sent to SPA
Approval	Revised MA1: Measurement and Systems Metrology WM310-15	UG	JJ	KN	NA	Sent to SPA
Approval	Revised MA1: Engineering Mathematics (Cyber Eng.)	UG	JJ	KN	NA	Sent to SPA

Action	Item	Level	Approved by		Minute reference	Other notes
			Chair	Head of Education		
Approval	Revised MA1: Financial Strategy ES980-10	PG	JJ	RC	NA	Sent to SPA
Approval	Revised MA1: Postgraduate Diploma Dissertation, ES927-60	PG	JJ	RC	NA	Sent to SPA
Approval	Revised MA1: Electrical and Electronic Principles, WM102-15	UG	JJ	KN	March 2019 LTC, 8.6.1	Sent to SPA
Approval	Revised MA1: Networking, Infrastructure Communication and Interoperability of Systems, WM327-15	UG	JJ	KN	March 2019 LTC, 8.6.4	Sent to SPA
Approval	Revised MA1: Functional Systems, WM326-15	UG	JJ	KN	March 2019 LTC, 8.5.2	Sent to SPA
Approval	Revised MA1: Individual Project 2 WM324-15	UG	JJ	KN	NA	Sent to SPA
Approval	Revised MA1: Financial Analysis and Control Systems WM909-15	PG	JJ	RC	March 2019 LTC, 8.3.2	Sent to SPA
Approval	Revised MA1: Financial Analysis and Control Systems ES979-10	PG	JJ	RC	March 2019 LTC, 8.3.1	Sent to SPA
Approval	Revised MA1: Applied Maths- I	UG	JJ	KN	March 2019 LTC, 8.5.1	Sent to SPA
Approval	Revised MA1: Instrumentation and Control, WM205-15	UG	JJ	KN	March 2019 LTC, 8.6.2	Sent to SPA
Approval	Revised MA1: CAE (CFD, FEA) & Physical Correlation, WM305-15	UG	JJ	KN	NA	Sent to SPA

20. Updates on New Courses

REPORTED:

That minor amendments to MSc and sub-qualifications in International Technology Management for Defence & Security were approved 16.04.2019.

21. Ongoing Course/Module Task and Finish Groups (TFG)

RECEIVED:

A list of current TFGs

TFG	Type	LTC when the group was formed	Group Lead	LTC Rep	Group Members
Design Thinking Module	Module	Jun-18	RC	RC	HEN, Mairi Macintyre
MSc Cyber Security Engineering (CSE)	Course	Aug-18	Peter Norris	KN	Peter Norris, Kath Garnett, Duncan Hine, KN
MSc International Technology Management (ITM)	Course	Sep-18	Angela Clarke	GK, AHC	Angela Clarke, GK, Cathy Fawcett, Teng Zhang, Clive Reynolds, Kim Stansfield, Dee Nicholls, Michael Mortenson, Steve Raynor, Edwina Jones, AHC
HOMS Degree Apprenticeship	Course	Nov-18	Sudi Lahiri	GT	GT, Sue Parr

TFG	Type	LTC when the group was formed	Group Lead	LTC Rep	Group Members
BEng (Hons) Engineering – Degree Apprenticeship (Dyson)	Course	Dec-18	Matt Sokola	KN	Matt Sokola, Kevin Neailey, Matt Jones, (Freeha Azmat), Zeina Rihawi, Alaa Al Sebae, Mir Seyedebrahimi, Glenn Miles, Mohammad Nasr Esfahani, Alex Glazer

22. Cascade Points

REPORTED:

That the Chair, Secretary and Academic Quality Officer agreed that the following updates should be cascaded to learning and teaching staff:

- an intranet page was created to advise which staff-facing teams / resource accounts should be contacted for different types of query: <https://warwick.ac.uk/fac/sci/wmg/intranet/student/academic/lt-contacts/>
- Teaching away day is scheduled for 1 July 2019.

23. Academic Quality Process Documents List with stability dates

RECEIVED:

Academic Quality Process Documents List with stability dates

Title	Original Author	Last Author	Approving Committee	Status	Date Created	Date Last Reviewed	Last-Revision Date	Date Approved	Version Number	Section for AQ-guide	Stability-Date
Course regulations change request form (word copy)	Amy Collins	Amy Collins	LTC	Approved	01/07/2018	07/08/2018	01/07/2018	07/08/2018	Issue 1 Approved	Course and Module Regulations and Approvals	07/08/2019
Guidance on Course Regulations	Amy Collins	Amy Collins	LTC	Approved	01/07/2018	07/08/2018	01/07/2018	07/08/2018	Issue 1 Approved	Course and Module Regulations and Approvals	07/08/2019
Authorisation of module exemptions for students (Academic guidance)	Amy Collins	Amy Collins	LTC	Approved	01/06/2018	07/08/2018	21/08/2018	21/08/2018	Issue 1 Approved	Course and Module Regulations and Approvals	21/08/2019
Triage process for acceptance of external project supervisors	Jeff Jones	Amy Collins	LTC	Approved	01/07/2018	07/08/2018	21/08/2018	21/08/2018	Issue 2 Approved	Staff Roles	21/08/2019
Suspected Cheating in a University Test – WMG PROCESS	Jeff Jones	Amy Collins	AQSC	Approved	28/11/2017	01/07/2018	30/07/2018	08/10/2018	Issue 2 Approved	Discipline	08/10/2019
WMG Annual Course Review Process	Robin Clark	Amy Collins	LTC	Approved	01/07/2018	20/09/2018	30/10/2018	29/10/2018	Issue 2 Approved	Monitoring and Review	29/10/2019
Learning and Teaching Committee Task-and-Finish Group Rules	Amy Collins	Amy Collins	LTC	Approved	15/10/2018	30/10/2018	26/11/2018	30/10/2018	Issue 1 Approved	Teaching Quality Committees	30/10/2019

Title	Original Author	Last Author	Approving Committee	Status	Date Created	Date Last Reviewed	Last-Revision Date	Date Approved	Version Number	Section for AQ-guide	Stability-Date
Module role outlines	Maddie Langeveld	Amy Collins	LTC	Approved	01/07/2018	30/10/2018	26/11/2018	30/10/2018	Issue 1 Approved	Staff Roles	30/10/2019
Triage process for increase in FT Masters external project supervisors' project number allowance	Jeff Jones	Amy Collins	LTC	Approved	01/09/2017	30/10/2018	26/11/2018	30/10/2018	Issue 2 Approved	Staff Roles	30/10/2019
Plagiarism Panel Guidance	Martyn Pinfold	Amy Collins	LTC	Approved	01/05/2018	30/10/2018	26/11/2018	12/12/2018	Issue 1 Approved	Discipline	12/12/2019
Guidance for Approving Markers	Maddie Langeveld	Maddie Langeveld	LTC	Approved	24/01/2019	25/01/2019	24/01/2019	25/01/2019	Issue 1 Approved	Staff Roles	25/01/2020
Masters level post-module assignment operational terms	Vagelis Kitsos	Amy Collins	LTC	Approved	05/11/2018	29/01/2019	05/02/2019	06/02/2019	Issue 1 Approved	Assessment Processes	06/02/2020
MA1 annotated with WMG guidance	Amy Collins	Amy Collins	LTC	Approved	15/01/2019	29/01/2019	05/02/2019	07/02/2019	Issue 1 Approved	Course and Module Regulations and Approvals	07/02/2020
MSc Programmes Module Assessment Report	Jeff Jones	Jeff Jones			13/08/2018		13/09/2018		none attributed	Assessment Processes	

Attachments:

1. Course Structure Change pdf
2. Course Structure Change mmap

As at 9 May 2019

WMG LEARNING AND TEACHING COMMITTEE (LTC)

Minutes of the meeting of the Learning and Teaching Committee held on Thursday, 20 June 2019 from 12.00 to 16.00, in IMC108.

Liubov Lobanova
Secretary of LTC

MINUTES

1. Attendance

Name	Role	Initials	Attendance
Aitken, James	Student representative, UG	JA	Apologies
Clark, Robin	Associate Director of Postgraduate Programmes, Head of Education (PG), Part Time PGT Programme Director and/or manager	RC	Apologies
Collins, Amy	Academic Quality Officer	AHC	Present
Er, Ahmet	Director of Full Time Programmes	AE	Present
Gaspar Zamora, Luciana	Student representative, PGT	LG	Apologies (No response)
Jones, Jeff	Chair , Director of Academic Quality	JJ	Present
Jones, Matt	Deputy Director of UG Programmes	MJ	Present
Knowles, Graeme	Convener of the Education Innovation Group	GK	Apologies
Kyei-Baffour, Elgin	Student representative, PGT	EK	Apologies
Langeveld, Maddie	Head of Administration (Teaching and Learning)	MGL	Present
Lobanova, Liubov	Secretary , Academic Quality Administrative Assistant,	LL	Present
Martin, Celine	Convener of the Pedagogic Interest Group	CM	Present
Murray, Sharon	Teaching and Learning Officer, OS Programmes	SM	Present until 2.30pm
Neailey, Kevin	Director of Undergraduate Programmes (Quality & Governance)	KN	Present
Neal, Helen	PGT Exam Board Secretary	HEN	Present
Newton, Mike	Deputy Chair , Director of Overseas Programmes	JMN	Apologies
Pacelli, Nisia	Assessment Coordinator	NP	Present
Palmer, India	Teaching and Learning Officer, UG Programmes	IP	Apologies
Pinfold, Martyn	Full Time Programmes Manager	MP	Apologies
Taylor, Gareth	Professional & Executive Programmes Manager	GT	Present

2. Declaration of Conflicts of Interest

There were no conflicts of interests declared

3. Minutes

CONSIDERED:

The minutes of the meeting held on 9 May 2019

RESOLVED:

That the minutes were a true and accurate record.

4. Matters Arising from the Minutes (Updates on previous actions)

Person Responsible	Action	REPORTED
Ahmet Er	AE to write the guidance on Resubmission of work to remedy failure for modules when some of LOs is practically based	Complete See Paper 4.1.1
Amy Collins	AHC to chase up Teaching Quality on query if we are allowed to change WMG criteria for Merits	In Progress: chased; no response yet (except a holding email)
	AHC to write an administrative process for the situations where a tutor is not available (including project supervision and teaching/marketing/ownership of modules)	In Progress
Celine Martin	CM to discuss the Module Models for UK delivery document at the Pedagogic Interest Group in order to add pedagogical rational to the document	In Progress. See paper 4.2.1
Kevin Neailey	To put the Cyber programmes audit TFG on hold until course/module review process is complete over the summer; to revisit in October 2019.	On Hold until Oct-19
MGL, IP, AE, TC, SM, GT, AHC, MJ, JJ, HEN, TC, RC, MP, GK	Focus groups (as per table in May-19 LTC minutes) to look at separate areas of various possible course models to identify potential problems and solutions and the potential effect of the course structure change to their area.	See item 6

CONSIDERED:

4.1.1 Issue-1-Draft-A_Reassessment of modules with practically based LO

RESOLVED:

Document 4.1.1 was approved, subject to recommended changes

RECEIVED:

4.2.1 Initial PIG response to LTC

CM clarified that the action was still work in progress. It was agreed that module models should be driven by educational need, however there are some current staffing/resource constraints that might be difficult to overcome, therefore a right pragmatic balance need to be found between pedagogical approach and resource limitations.

MGL commented that new information about modules would be available after course/module review process completed in September 2019 and clarified that scheduling for 2020/21 academic year would start in January 2020. The current problems with scheduling were discussed and it was agreed that scheduling decisions should be made not at module owner level but at higher level instead therefore a policy around the scheduling is needed.

RESOLVED:

- That PIG group should continue to work on Module Models delivery document adding pedagogical rational
- MJ would form a TFG to create a scheduling policy and to examine resource constraints; noted that if this is to be in place to support scheduling for 20/21 then it needs to be in place by the end of 2019.

Action: LL to add Scheduling Policy TFG into TFG list

5 Updates on Feedback Turnaround

Not reported this time.

6 Updates from Focus Groups on course structure change

Lead persons for each group were identified (Initials in bold as per table below):

Area	Person	TO REPORT
Resources	MGL , IP, AE, TC, SM, GT	First meeting booked
Regulations/Documentation/Operations/Courses	AHC , SM, MJ, JJ, HEN, JMN	No progress to report
Project & REME	TC , RC, MP, JMN	No Progress to report
Modules	CM, GK	No Progress to report
Student Experience	MP , TC, Nicola Knowles; agreed to include student representatives into this group at a later stage	No Progress to report

It was clarified that the aim for each group is to undertake an impact assessment of the oncoming course structure changes, i.e. to investigate and assess the impact from the changes, to identify possible problem and conflicts and, if possible, to offer solutions.

7 Minimum Number of Project Assessments

CONSIDERED:

A recommendation from the EMG, which had resolved that the minimum number of project assessments internal WMG staff should be required to complete per Exam Board period would be 10 for teaching staff and 5 for research/academics/other staff; the Director of Academic Quality was asked to consider how to implement this policy and is referring the matter to the LTC. So if a supervisor has 1 student WMG would expect them to undertake the examination of their own student, plus second assessor 1 other as a swap. They then would be expected to undertake a further 8 as second assessor with external supervisors.

JJ clarified that the current maximum number of project assessment was 20 for all staff and trusted external supervisors (with exceptions needing approval): i.e. a maximum of 8 of their own project students plus 8 swapped second assessor roles, plus 4 further opportunities to act as second assessor for external supervisors to draw upon. External supervisors are expected to have a maximum of twice the number they supervise. E.g. if a tutor has 6 students then they will have a maximum of 12, 6 of their own plus 6 as second assessors.

In all cases work load, via the work load module and any other exceptional circumstance that is reported to the department officially will be taken into account

RESOLVED:

Action: MGL to write a draft policy on minimum number of project assessments per assessor and submit it to future LTC for discussion/approval.

8 Lecture Capture

REPORTED:

That IT Department requested a policy on lecture capture to be written in order to justify a budget to outfit all rooms that are used for teaching with Lecture Capture equipment.

Pros and cons of using Lecture Capture were discussed. It was noted that students like to have Lecture Capture option as a 'safety net'. It was noted that pre-recordings under controlled environment could also be used.

RESOLVED:

Action: JJ to write a draft policy on lecture capture use and submit it to future LTC for discussion/approval.

Noted that webinars policy would also be needed.

9 Updates from Quality Process and Other Task and Finish Groups (OR the NEXT ITEM)

Not reported this time.

10 Updates from Education Innovation Group (EIG) and Teaching Excellence Framework (TEF) (OR the PREVIOUS ITEM)

- a. Convener of the Education Innovation Group reported:
- That TEL Strategy in production to align with Robin's Education Strategy (currently Education Development Plan) and aligning with Chris Evans' TEL team through developing joint project allocation and management processes.
 - That PIG was currently working to share and operationalise the Degree Apprenticeship Model.
 - That there were the following major programme projects:
 - AEP2
 - DTS
 - DHAWS
 - That PIG would be hosting a session with Dr Jonas Nordquist on "Designing physical spaces for learning in the digital era: what can we gain from other sectors?"
 - That PIG was developing first workshops, including:
 - Designing new programmes and modules
 - Scholarship in Teaching Practice
 - That EIG Communication plan and demonstrator site in development ready for summer launch.
- b. A verbal report from the Associate Director of Postgraduate Programmes on the Teaching Excellence Framework:

KN Reported that recent mock NSS exercise had a 63% response rate and that the overall comments received from the students were positive.

11 Academic Quality Processes Due for Review

Nothing considered this time.

12 External Exam Reports (ONLY June & January LTC)

RECEIVED:

A verbal report from the PGT Exam Board Secretary:

- Six External Examiners attended PGT Exam Board in May 2019.
- Exam Board went well in general
- For the first time dissertations were submitted and marked electronically only, i.e. no hard copies were used.
- The following comments were provided by External Examiners and would need to be addressed:
 - moderators have too much influence over outcomes
 - concern about industrial supervisors being markers (this comment was already addressed as that practice is being discontinued)
 - using supervisors as markers could lead to potential biases
 - big variations in dissertations submitted

- issues with PMA approval process (timescales, inconsistency within PMAs being sent for an approval)
- use of lots of different systems and difficulties with finding information
- The following positive comments were provided by External Examiners:
 - easy to use SharePoint System
 - had very positive meeting with students
 - use of ethics panel should be commended
 - clear evidence of rigour in the process
 - consistent and fair approach

JJ reported that WMG were currently in process of appointing a new external examiner for the automotive courses and to help with the more technical modules.

13 Any Other Business

REPORTED:

a. WMG Representation

JJ provided an update with regards to the following action which was now completed: to contact HR asking them to write up a formal process about opportunity for people to represent WMG at the departmental level. It was reported

- That Catherine Gordon was currently working on a list of which WMG staff who are on which WMG and University committees.
- That staff should be encouraged to speak with their line manager if they are interested in being part of any particular committee.
- That link to all the committees the university is available and minutes can be accessed to clarify any uncertainties.
- That a policy or guidance, that lays out who in the department appoints staff to external committees, what the criteria are for doing so, and what their duties are there in respect of reporting and attending, could be discussed at the Secretariat meeting.

RESOLVED:

Action: AHC to check through the minutes of various University's committees in order to find out the following:

- ***where WMG has no representation at all and also,***
- ***if WMG is represented, who is representing WMG and what the reporting mechanism should be.***

b. Response Time to students.

JJ reported that currently there was no guidance available for staff involved in direct communication with students as to what the recommended response time should be.

RESOLVED:

It was agreed that students' emails should be acknowledged as soon as possible, but no later than 5 working days since the receipt of an email.

Action: JJ to write a guidance for staff involved in direct communication with students as to what the recommended response time to students' emails should be; this would later be included in to the student handbook and academic quality guide

It was noted that for more urgent matters a wider use of Moodle forums should be considered.

Action: JJ to find a suitable person to explore an option of using Moodle forums as a better alternative to emails in cases where an urgent response to students is needed.

c. Use of TII for checking submissions

JJ reported that the University was planning to allow UG students to use Turnitin for checking of all first year's submissions and that WMG would need to define its own Turnitin usage policy for our PGT students.

After a discussion it was agreed that WMG would possibly allow to use multiple submissions through Turnitin software for the first PGT module only, however, before implementing this change, it would be necessary to create and provide materials to help students to understand how to interpret TII reports.

Action: JJ to check when the changes with the use of Turnitin by students should be implemented.

d. Module/Course Approval

KN proposed to use a monthly come along sessions for colleagues who wants to approve modules

Action: KN to write a short process description for the proposed monthly come along module/course approval sessions.

e. Course/Module Review

MJ highlighted a possible issue with regards to Learning Outcomes being changed as part of module review process which could lead to potential implications on course/accreditation level? JJ advised that these changes would be discussed as part of course review process. Consequently, MJ noted that in this case it would be helpful if module review completed before course review.

14 Dates of Future Meetings

REPORTED:

That the future meetings of the Committee for the 2018/19 and 2019/20 academic years are as follows:

- Thursday, 8 August 2019 from 12:00 to 16:00 in IMC 108
- Thursday, 19 September 2019 from 12:00 to 15:00 in IMC Boardroom 2
- Wednesday, 30 October 2019 from 12:00 to 15:00 in TBC
- Wednesday, 11 December 2019 from 12:00 to 15:00 in IDL Boardroom
- Wednesday, 22 January 2019 from 12:00 to 15:00 in IDL Boardroom

MATTERS TO RECEIVE AND APPROVE WITHOUT FURTHER DISCUSSION

15 Matters Arising on the Minutes (Updates on completed, superseded, no longer required previous actions)

REPORTED:

Person Responsible	Action	Status
Jeff Jones	JJ to contact HR asking them to write up a formal process about opportunity for people to represent WMG at the departmental level	Complete. Awaiting the feedback
	JJ to form IPR Policy for MSc projects TFG	Action removed as TFT was added to the list of TFG and will be reported there
	JJ to pass the WMG policy around the dignity at Warwick policy to TFG for Quality Handbook and also to HR	Complete. Awaiting comments.
Liubov Lobanova	LL to close down the Exam Board Processes TFG	Complete
	LL to close down the Absence Policy TFG	Complete
	LL to publish the amended version of the Absence Policy	Complete
	LL To distribute the Absence Policy to TLOs to be included in Student Handbooks	Complete
	LL To close down the Resubmission of work to remedy failure for modules when some of LOs is practically based TFG	Complete
	LL to rename 'Marking Grid for PMA' TFG to 'PGT Marking Grid for PMA'	Complete
	LL to close down the Late Marking/Extensions TFG	Complete

Person Responsible	Action	Status
Maddie Langeveld	MGL to form a separate TFG for Research Degree Programmes Role Definition	Cancelled. Phase 2 Quality Guide will resurrect
Robin Clark & Mike Newton	RC and JMN to have a conversation about whether course leader is responsible for OS as well as FT/PT UK.	Complete. JMN reserves the right to appoint a specific Course Leader for OS programmes. Currently all Course Leaders are the same for all OS/UK programmes
MGL, AHC, JJ & RC	to discuss an interim solution to the course structure changes	Complete; pending final approval from Deputy PVC for Education

16 New Course/Module Proposals, Revisions & Discontinuation

RECEIVED:

Approval Panel Report:

Item	Level	Title	Approval Period	Status	Notes
Revised Module	PGT	Applied Statistical Methods	April 2019, June 2019	Awaiting Panel's Decision	Received an updated MA1 from the Module Owner
Revised Module	PGT	Machine Technology	April 2019, June 2019	Awaiting Panel's Decision	Received an updated MA1 from the Module Owner
Revised Module	PGT	Computational Statistics with Python	April 2019	Pending changes to approval panel	Comments returned to the Module Owner 20/05/2019
Revised Module	UG	Design for Manufacture	April 2019	Pending changes to approval panel	Comments returned to the Module Owner 20/05/2019
Revised Module	PGT	Manufacturing Process Technology	April 2019, June 2019	Awaiting Panel's Decision	Received an updated MA1

					from the Module Owner
Revised Module	PGT	Project Planning Management & Control	April 2019	Pending changes to approval panel	Comments returned to the Module Owner 20/05/2019
Revised Module	UG	Supply Chain Management	April 2019	Pending changes to approval panel	Comments returned to the Module Owner 20/05/2019
Revised Module	PGT	Manufacturing Technology	June 2019	Awaiting Panel's Decision	
Revised Module	PGT	Storage and Warehousing Techniques	June 2019	Awaiting Panel's Decision	
New Module	PGT	Technology Consultancy Project	July 2019	To be considered	
New Module	PGT	MSc Project and Dissertation – Context & Method 30 CAT	July 2019	To be considered	
New Module	PGT	MSc Project and Dissertation – Analysis and Discussion 60 CAT	July 2019	To be considered	
New Module	UG	Work Based Project (EDA)	July 2019	To be considered	
Revised Module	PGT	Intelligent Organisations At Work	July 2019	To be considered	
Revised Module	PGT	Product Life-Cycle Management	July 2019	To be considered	

17 Chair's Actions

RECEIVED:

Chair's Actions Report:

Action	Item	Level	Approved by		Minute reference	Other notes
			Chair	Head of Education		
Approval	Mechatronics and Systems Control, WM311-15	UG	JJ	KN	Mar-19 LTC, 8.6.3	sent to SEMEducationCommittee@warwick.ac.uk 7 th May 2019
Approval	Sustainable Energy Systems, WM318-15	UG	JJ	KN	Mar-19 LTC, 8.6.5	sent to SEMEducationCommittee@warwick.ac.uk
Approval	Agile Software Development	UG	JJ	KN	Mar-19 LTC, 8.7.4	sent to SEMEducationCommittee@warwick.ac.uk
Approval	Cyber risks in organisations	UG	JJ	KN	Mar-19 LTC, 8.7.6	sent to SEMEducationCommittee@warwick.ac.uk
Approval	Data Science & Machine Learning	UG	JJ	KN	Mar-19 LTC, 8.7.7	sent to SEMEducationCommittee@warwick.ac.uk
Approval	Embedded Systems	UG	JJ	KN	Mar-19 LTC, 8.7.9	sent to SEMEducationCommittee@warwick.ac.uk
Approval	Internet of things	UG	JJ	KN	Mar-19 LTC, 8.7.11	sent to SEMEducationCommittee@warwick.ac.uk
Approval	Software Development for Engineers	UG	JJ	KN	Mar-19 LTC, 8.7.14	sent to SEMEducationCommittee@warwick.ac.uk
Approval	Systems & Network Architecture	UG	JJ	KN	Mar-19 LTC, 8.7.15	sent to SEMEducationCommittee@warwick.ac.uk
Approval	Vision & Processing	UG	JJ	KN	Mar-19 LTC, 8.7.17	sent to SEMEducationCommittee@warwick.ac.uk
Approval	Signal Processing	UG	JJ	KN	Mar-19 LTC, 8.7.13	sent to SEMEducationCommittee@warwick.ac.uk
Approval	Electronics Manufacturing and Assembly	UG	JJ	KN	Mar-19 LTC, 8.7.8	sent to SEMEducationCommittee@warwick.ac.uk
Approval	Manufacturing and Metrology	UG	JJ	KN	Mar-19 LTC, 8.7.12	sent to SEMEducationCommittee@warwick.ac.uk

Action	Item	Level	Approved by		Minute reference	Other notes
			Chair	Head of Education		
Approval	Engineering Thermofluids, WM215-15	UG	JJ	KN	Mar-19 LTC, 8.7.1	sent to SEMEducationCommittee@warwick.ac.uk
Approval	Electrical and Electronic Application, WM212-15	UG	JJ	KN	Mar-19 LTC, 8.7.3	sent to SEMEducationCommittee@warwick.ac.uk
Approval	Control Theory and its Application, WM213-15	UG	JJ	KN	Mar-19 LTC, 8.7.2	sent to SEMEducationCommittee@warwick.ac.uk
Approval	Analogue Systems	UG	JJ	KN	Mar-19 LTC, 8.7.5	sent to SEMEducationCommittee@warwick.ac.uk
Approval	Systems Modelling & Control	UG	JJ	KN	Mar-19 LTC, 8.7.16	sent to SEMEducationCommittee@warwick.ac.uk
Approval	Energy Storage Systems	UG	JJ	KN	Mar-19 LTC, 8.7.10	sent to SEMEducationCommittee@warwick.ac.uk
Approval	Guidance for Attendance at Classes		JJ		May-19 LTC, 11.4.2	
Approval	Acoustics	UG	JJ	KN	n/a	sent to SEMEducationCommittee@warwick.ac.uk
Approval	Rotating Machinery	UG	JJ	KN	n/a	sent to SEMEducationCommittee@warwick.ac.uk
Approval	Vibration and Rotordynamics	UG	JJ	KN	n/a	sent to SEMEducationCommittee@warwick.ac.uk
Approval	Thermal Energy Systems, WM114-15	UG	JJ	KN	n/a	sent to SEMEducationCommittee@warwick.ac.uk

18 Updates on New Courses

Nothing to be reported this time.

19 Ongoing Course/Module Task and Finish Groups (TFG)

RECEIVED:

A list of current TFGs.

TFG	Type	LTC when the group was formed	Group Lead	LTC Rep	Group Members
MSc Cyber Security Engineering (CSE)	Course	Aug-18	Peter Norris	KN	Peter Norris, Kath Garnett, Duncan Hine, KN
MSc International Technology Management (ITM)	Course	Sep-18	Angela Clarke	GK, AHC	Angela Clarke, GK, Cathy Fawcett, Teng Zhang, Clive Reynolds, Kim Stansfield, Dee Nicholls, Michael Mortenson, Steve Raynor, Edwina Jones, AHC
HOMS Degree Apprenticeship	Course	Nov-18	Sudi Lahiri	GT	GT, Sue Parr
BEng (Hons) Engineering – Degree Apprenticeship (Dyson)	Course	Dec-18	Matt Sokola	KN	Matt Sokola, Kevin Neailey, Matt Jones, (Freeha Azmat), Zeina Rihawi, Alaa Al Sebae, Mir Seyedebrahimi, Glenn Miles, Mohammad Nasr Esfahani, Alex Glazer
P3M strand to the Senior Leader MSc	Course	Mar-19	Jayne Redfern	GT	Malcolm Wyatt, Peter Harpum, Caroline Tite

20 Cascade Points

REPORTED:

That the Chair, Secretary and Academic Quality Officer agreed that the following updates should be cascaded to learning and teaching staff:

- WMG (and School of Engineering) coursework moderation procedures document published:
<https://warwick.ac.uk/fac/sci/wmg/intranet/student/academic/aq-guide/assessment-processes/coursework-moderation-procedures>
- Process for Approval: New/Revised Courses document published:
<https://warwick.ac.uk/fac/sci/wmg/intranet/student/academic/aq-guide/courseregs/process-for-approval-new-revised-courses>
- Information & Data Compliance document published:
<https://warwick.ac.uk/fac/sci/wmg/intranet/student/academic/aq-guide/data-retention/information-and-data-compliance/>
- Authorisation of module exemptions for students (Academic guidance) document published
<https://warwick.ac.uk/fac/sci/wmg/intranet/student/academic/aq-guide/courseregs/module-exemptions-guidance>
- Guidance for attendance at classes document published:
<https://warwick.ac.uk/fac/sci/wmg/intranet/student/academic/aq-guide/attendance/attendance-at-classes/>

21 Academic Quality Process Documents List with stability dates

RECEIVED:

Academic Quality Process Documents List with stability dates

Title	Original Author	Last Author	Approving Committee	Status	Date Created	Date Last Reviewed	Last-Revision Date	Date Approved	Version Number	Section for AQ-guide	Stability-Date
Course regulations change request form (word copy)	Amy Collins	Amy Collins	LTC	Approved	01/07/2018	07/08/2018	01/07/2018	07/08/2018	Issue 1 Approved	Course and Module Regulations and Approvals	07/08/2019
Guidance on Course Regulations	Amy Collins	Amy Collins	LTC	Approved	01/07/2018	07/08/2018	01/07/2018	07/08/2018	Issue 1 Approved	Course and Module Regulations and Approvals	07/08/2019
Authorisation of module exemptions for students (Academic guidance)	Amy Collins	Amy Collins	LTC	Approved	01/06/2018	07/08/2018	21/08/2018	21/08/2018	Issue 1 Approved	Course and Module Regulations and Approvals	21/08/2019
Triage process for acceptance of external project supervisors	Jeff Jones	Amy Collins	LTC	Approved	01/07/2018	07/08/2018	21/08/2018	21/08/2018	Issue 2 Approved	Staff Roles	21/08/2019
Suspected Cheating in a University Test – WMG PROCESS	Jeff Jones	Amy Collins	AQSC	Approved	28/11/2017	01/07/2018	30/07/2018	08/10/2018	Issue 2 Approved	Discipline	08/10/2019
WMG Annual Course Review Process	Robin Clark	Amy Collins	LTC	Approved	01/07/2018	20/09/2018	30/10/2018	29/10/2018	Issue 2 Approved	Monitoring and Review	29/10/2019
Learning and Teaching Committee Task-and-Finish Group Rules	Amy Collins	Amy Collins	LTC	Approved	15/10/2018	30/10/2018	26/11/2018	30/10/2018	Issue 1 Approved	Teaching Quality Committees	30/10/2019
Module role outlines	Maddie Langeveld	Amy Collins	LTC	Approved	01/07/2018	30/10/2018	26/11/2018	30/10/2018	Issue 1 Approved	Staff Roles	30/10/2019
Triage process for increase in FT Masters external project	Jeff Jones	Amy Collins	LTC	Approved	01/09/2017	30/10/2018	26/11/2018	30/10/2018	Issue 2 Approved	Staff Roles	30/10/2019

Title	Original Author	Last Author	Approving Committee	Status	Date Created	Date Last Reviewed	Last-Revision Date	Date Approved	Version Number	Section for AQ-guide	Stability-Date
supervisors' project number allowance											
Plagiarism Panel Guidance	Martyn Pinfold	Amy Collins	LTC	Approved	01/05/2018	30/10/2018	26/11/2018	12/12/2018	Issue 1 Approved	Discipline	12/12/2019
Guidance for Approving Markers	Maddie Langeveld	Maddie Langeveld	LTC	Approved	24/01/2019	25/01/2019	24/01/2019	25/01/2019	Issue 1 Approved	Staff Roles	25/01/2020
Masters level post-module assignment operational terms	Vagelis Kitsos	Amy Collins	LTC	Approved	05/11/2018	29/01/2019	05/02/2019	06/02/2019	Issue 1 Approved	Assessment Processes	06/02/2020
MA1 annotated with WMG guidance	Amy Collins	Amy Collins	LTC	Approved	15/01/2019	29/01/2019	05/02/2019	07/02/2019	Issue 1 Approved	Course and Module Regulations and Approvals	07/02/2020
MSc Programmes Module Assessment Report	Jeff Jones	Jeff Jones			13/08/2018		13/09/2018		none attributed	Assessment Processes	

As at 20 June 2019

WMG LEARNING AND TEACHING COMMITTEE (LTC)

Minutes of the meeting of the Learning and Teaching Committee held on Thursday, 8 August 2019 from 12.00 to 15.00, in IMC108.

Liubov Lobanova
Secretary of LTC

MINUTES

1. Attendance

Name	Role	Initials	Attendance
Aitken, James	Student representative, UG	JA	Apologies
Carey, Tanya	Academic Administrator (FT MSc Projects)	TC	Apologies
Clark, Robin	Associate Director of Postgraduate Programmes, Head of Education (PG), Part Time PGT Programme Director and/or manager	RC	Present
Collins, Amy	Academic Quality Officer	AHC	Apologies
Er, Ahmet	Director of Full Time Programmes	AE	Present
Gaspar Zamora, Luciana	Student representative, PGT	LG	Apologies
Jones, Jeff	Chair , Director of Academic Quality	JJ	Present
Jones, Matt	Deputy Director of UG Programmes	MJ	Present
Knowles, Graeme	Convener of the Education Innovation Group	GK	Apologies
Kyei-Baffour, Elgin	Student representative, PGT	EK	Apologies
Langeveld, Maddie	Head of Administration (Teaching and Learning)	MGL	Apologies
Lobanova, Liubov	Secretary , Academic Quality Administrative Assistant,	LL	Present
Martin, Celine	Convener of the Pedagogic Interest Group	CM	Apologies
Murray, Sharon	Teaching and Learning Officer, OS Programmes	SM	Present
Neailey, Kevin	Director of Undergraduate Programmes (Quality & Governance)	KN	Present
Neal, Helen	PGT Exam Board Secretary	HEN	Present
Newton, Mike	Deputy Chair , Director of Overseas Programmes	JMN	Apologies
Pacelli, Nisia	Assessment Coordinator	NP	Apologies
Palmer, India	Teaching and Learning Officer, UG Programmes	IP	Present
Parr, Sue	Business Development Director (PEP)	SP	Present
Pinfold, Martyn	Full Time Programmes Manager	MP	Present
Taylor, Gareth	Professional & Executive Programmes Manager	GT	Present

2. Declaration of Conflicts of Interest

There were no conflicts of interests declared.

3. Minutes

CONSIDERED:

The minutes of the meeting held on 20 June 2019.

RESOLVED:

That the minutes were a true and accurate record.

4. Matters Arising from the Minutes (Updates on previous actions)

Person Responsible	Action	REPORTED:
Maddie Langeveld	To write a draft policy on minimum number of project assessments per assessor	That this action is completed – See paper 4.1
Amy Collins	To chase up Teaching Quality on query if we are allowed to change WMG criteria for Merits	- That AHC chased TQ further and had some response but TQ misunderstood the question; no response to the follow-up yet; action is ongoing
	To write an administrative process for the situations where a tutor is not available (including project supervision and teaching/marketing/ownership of modules)	- That AHC hoping to finalise it end August (will need to seek input/approval from HR as well as LTC probably); action is ongoing
	To check through the minutes of various University's committees in order to find out the following: - where WMG has no representation at all and also, - if WMG is represented, who is representing WMG and what the reporting mechanism should be.	- That AHC is planning to do it mid-September when more likely to have been updated for the Academic Year 2019/20; action is ongoing <i>NEW ACTION: JJ to liaise with the Senior Administrator, Catherine Gordon, to establish the list of the current WMG's committees and its attendees.</i>
Celine Martin	To discuss the Module Models for UK delivery document at the Pedagogic Interest Group in order to add pedagogical rational to the document	- that this action is Ongoing
Jeff Jones	JJ to write a draft policy on lecture capture use and submit it to future LTC for discussion/approval	-That the paper will be submitted to future LTC for comments; Action is now completed

Person Responsible	Action	REPORTED:
	<p>JJ to write a guidance for staff involved in direct communication with students as to what the recommended response time to students' emails should be; this would later be included in to the staff handbook and academic quality guide</p>	<p>-That the paper will be submitted to future LTC for comments;</p> <p>Action is now completed</p>
	<p>JJ to find a suitable person to explore an option of using Moodle forums as a better alternative to emails in cases where an urgent response to students is needed.</p>	<p>-That JJ spoke to Chris Evans who advised that Moodle could be used as an alternative to emails to improve our communication with the students.</p> <p>Action is completed</p> <p>NEW ACTION: LL to invite Chris Evans to the next suitable LTC meeting to discuss how Moodle can be used to improve our communication with the students.</p>
	<p>JJ to check when the changes with the use of Turnitin by students should be implemented.</p>	<p>-That the change may be on hold until review of assessment group on integrity report and that JJ is waiting for the confirmation;</p> <p>-RC clarified that the changes most probably would be for the Academic Year 2020/21</p> <p>action is ongoing</p>
Kevin Neailey	<p>To put the Cyber programmes audit TFG on hold until course/module review process is complete over the summer; to revisit in October 2019.</p>	<p>-that this action On hold until Oct-19 (need to be re-assigned after Sept-19 LTC)</p>
	<p>To write a short process description for the proposed monthly come along module/course approval sessions</p>	<p>-That draft passed to Amy Collins and she will take on further work on merging that with other guidance before it comes to an LTC.</p> <p>Action is now completed</p>

CONSIDERED:

A draft policy on minimum number of project assessments per assessor created by Maddie Langeveld:

Paper 4.1 - Issue 1_DRAFT_Policy_Number of Projects_Assessments

KN stressed that the approach was fundamentally wrong as the policy can't refer only to Full-Time MSc Projects, as the same members of staff could be dealing with UG, PT and OS students as well; it was however noted that this data is not easily available. It was clarified that the policy is intended for all staff who are on academic contracts or teaching pathway.

RESOLVED:

- that Paper 4.1 - Issue 1_DRAFT_Policy_Number of Projects_Assessments was not approved
- that MGL would form TFG (to include HEN, GT, MJ, SM, Catherine Gordon and possibly other non-LTC members – Jane Marshall, Neil Davis?)

ACTION: LL to add TFG for Minimum/Maximum Project Assessment Policy into TFG list

5. Updates on Feedback Turnaround

Not reported this time.

6. Updates from Focus Groups on PGT course structure change

Area	Lead Person	Group Members	REPORTED / RECEIVED
Resources	MGL	IP, AE, TC, SM, GT	Ongoing. Received: Paper 6.1_Issue-1_Proposed Structure Change_REPORT
Regulations/Documentation/Operations/Courses	AHC	SM, MJ, JJ, HEN, JMN	- That the group Met once and largely discussed OS impact; - that generally it felt that it was hard to assess impact further until we knew exactly what would be required to change around the project/ReMe from a higher level; - that feedback from RC was sought on the progress of the

			dissertation review TFG; - that RC is planning to bring a proposal to Sep 2019 LTC.
Project & REME	TC	RC, MP, JMN	- That the Group hasn't had the time - to meet yet; - that TC created and get circulated a paper with the list of the main issues and points to discuss (Paper 6.3_Issue-3 Focus Groups on course structure change to WMG-Projects); - that MP provided some comments to this paper after the papers were distributed
Modules	GK	CM	-That no report were available
Student Experience	MP	TC, Nicola Knowles; agreed to include student representatives into this group at a later stage	- That MP was unaware that he was leading the group as he had not attended the last meeting, therefore the group hasn't met yet or made progress; - that MP generally doesn't deal with student experience so may not be the right person to lead this group; - a new lead person for this group was identified (Jane Marshall).

RESOLVED:

ACTION: to change the lead person for the Student Experience group from MP to Jane Marshall

7. Different level of access to systems (Tabula etc.) for colleagues with different roles

CONSIDERED:

that a policy on different level of access to various systems depending on the role is needed

RESOLVED:

ACTION: MGL to write a policy on different level of access to various systems depending on the role

MJ volunteered to be involved in the process

ACTION: SP to send to MGL DA Tutor Role Descriptor

8. Proposed guidance for assigning markers of assignments

CONSIDERED:

8.1 WMG Guidelines on assigning markers of assignments

RESOLVED:

Document 8.1 was approved, subject to recommended changes

It was noted that all markers should be pre-approved (triage process similar to the process for project supervisor approval)

9. Annual Review of Pre-master programmes

CONSIDERED:

The following report and papers provided by Nick Phillips:

- 9.1_Issue -1 Report_of_premasters
- 9. 2_Issue-2 Review_BCU Pre-Masters Programme 2019
- 9. 3_Issue-3 Review_NCUT Pre-Masters Programme 2019

RESOLVED:

Annual Review of Pre-master programmes were approved.

10. Updates from Quality Process and Other Task and Finish Groups (OR the NEXT ITEM)

TFG	Type	LTC when the group was formed	Group Lead	LTC Rep	Group Members	REPORTED / RECEIVED/ CONSIDERED
Role Definition	Quality Process	Jan-18	MGL	MGL	MGL, AHC, GT, GK, JMN, Steve Maggs	REPORTED: -That Course Leader definitions for PGT and UG have been passed to RC for consideration - That RC didn't receive it and it should be checked
Academic Quality Guide	Quality Process	Apr-18	AHC	AHC	AHC, JJ, MGL, JMN, GT, AE, RC, Stuart Barnes, Kurt Debattista, KN, Julia Fan	CONSIDERED: Paper 10.2.1 RESOLVED: Paper 10.2.1 was not approved; IP will speak to AHC RECEIVED: Paper 10.2.2 Paper 10.2.3
Cyber programmes audit	Quality Process	Aug-18	KN	KN	RC, MGL, JMN	On Hold May-19-Sep-19 (Lead needs to be re-assigned after Sep-19 LTC)
Dissertation Reviews	Quality Process	Sep-18	RC	RC	TBC	REPORTED: -that the group met three times and started looking at REME; -that next steps would be to look how the running of 15credit REME can be implemented in 2 years' time - need a clear plan to accommodate FT, PT, OS and DA provision - that next meeting is planned for the next month - full report would be provided to a later LTC

TFG	Type	LTC when the group was formed	Group Lead	LTC Rep	Group Members	REPORTED / RECEIVED/ CONSIDERED
Ethical Approval of Projects	Quality Process	Sep-18	KN	KN	Stewart Birrell, Tanya Carey, Nikki Knowles, GT, David Wright	<p>RECEIVED: Paper 10.5.1 Paper 10.5.2</p> <p>RESOLVED:</p> <ul style="list-style-type: none"> - Noted that Group Lead would need to be changed before KN is retired - Noted that colleagues from OS, PT, UG, DA, Healthcare and Cyber Security programmes should be invited to join this group
PGT Marking Grid for PMA	Quality Process	Sep-18	JJ	JJ	JJ, Karen Bradbury, Vagelis Kitsos, Adrian Watt, Andrea Latham, Lee Griffin, Morag Malins	<p>REPORTED:</p> <ul style="list-style-type: none"> -That the group last met 26th June and were now writing descriptors for each mark level; - that a draft should become available after the next meeting which is likely to be at the end of August.
Tutors Training Need	Quality Process	Nov-18	JJ	JJ	Rachel Edwards, Jane Coleman, GK, Jane Marshall, MP, Morag Malins, Tanya Carey, JMN, Lauren Schrock, David Wright, ACH, JJ, MGL	<p>REPORTED:</p> <ul style="list-style-type: none"> -That the group last met 12th June and the training needed and gaps were identified; - that the group was working on organising material to meet needs at present; - that training policy was written and agreed and will come to LTC soon for approval and then to OEG for HR to implement in contracts, conditions etc.; - that the group was also developing a new tutor induction timeline over the 6 month probation period and developing an existing tutor training timeline over an academic year; -that constructive alignment training had been recently delivered and effective feedback training is planned for September; -that the next group meeting will be at end of August.

TFG	Type	LTC when the group was formed	Group Lead	LTC Rep	Group Members	REPORTED / RECEIVED/ CONSIDERED
E-marking guidance development	Quality Process	Nov-18	JJ	JJ	James Pennington, Michael Mortenson, Stuart Coles, Freeha Azmat, Matt Sokola, Tara Schiller, Chris Evans, JJ	<p>REPORTED:</p> <p>-That the group last met 3rd July and members were asked to look at the different tools available for e-marking so we can reach a consensus and generate some guidance:</p> <p>Offline:</p> <ul style="list-style-type: none"> - Windows (surface and other pen equipped machines) – Drawboard - need to liaise with IT to get this as part of the surface build - Mac & Windows (not pen equipped) – Adobe Reader. <p>Online:</p> <ul style="list-style-type: none"> - Grademark (Part of Turnitin). <p>-That a brief guidance on using these will be written and some videos produced of them being used. These guidance documents and videos will be placed on the e-marking Moodle page. People who were asked to report on the tool should write a couple of paragraphs about how to use it. A flow chart for e-marking has been produced as basic guidance.</p> <p>-that the next meeting will be at end of August</p>
Peer Observation Process (for lectures).	Quality Process	Dec-18	KN	KN	KN, RC, JJ, others TBC	<p>RECEIVED:</p> <p>Paper 10.9.1</p>
IPR Policy for MSc Projects	Quality Process	May-19	JJ	JJ	TBC	<p>REPORTED:</p> <p>-That no progress were made yet, as this is a trickier issue that originally thought. Needs a TFG to be formed to deal with it.</p> <p>-Noted that Alex Glazer should be invited to join the group as he has some legal background</p>

TFG	Type	LTC when the group was formed	Group Lead	LTC Rep	Group Members	REPORTED / RECEIVED/ CONSIDERED
Role Definition for Research Degree programmes	Quality Process	May-19	MGL	MGL	TBC	<p>REPORTED: That this group should be discontinued as of August 2019 with the revision in scope of version 1 of the Academic Quality Guide to cover taught programmes only</p> <p>ACTION: <i>LL to discontinue the Role Definition for Research Degree programmes TFG in the master list</i></p>
Scheduling Policy	Quality Process	June-19	MJ	MJ	TBC	<p>REPORTED: - That not much progress had been made so far</p> <p>RESOLVED: GT to form and chair a permanent Scheduling Committee which should include MGL, IP, MJ plus colleagues from Facilities and IT.</p>
Assessment Tariff	Quality Process	June-19	MJ	MJ	TBC	<p>RECEIVED: That not much progress had been made so far</p> <p>RESOLVED: ACTION: <i>JJ to email tutors asking for volunteers to join the Assessment Tariff TFG</i></p>

11. Updates from Education Innovation Group (EIG) and Teaching Excellence Framework (TEF) (OR the PREVIOUS ITEM)

Not reported this time.

12. Academic Quality Processes Due for Review

CONSIDERED:

- 12.1 Course regulations change request form (word copy)
- 12.2 Guidance on Course Regulations
- 12.3 Authorisation of module exemptions for students (Academic guidance)
- 12.4 Triage process for acceptance of external project supervisors

The existing not changed documents were submitted for LTC review. LTC was asked either to re-approve or, if changes in process were required, to assign to a person/TFG for revision.

RESOLVED:

Documents 12.1, 12.2, 12.3 were reapproved without any changes

Document 12.4 was approved subject to one recommended amendment: it should read 'Accept subject to the person's agreement to undertake supervisor training' instead of 'Accept'.

13. External Exam Reports (ONLY June & January LTC)

CONSIDERED:

Creation of TFG to review and respond to the PGT external examiners' comments

RESOLVED:

To form TFG for PGT External Examiners' Reports Review/Responses.
HEN, JJ, MJN and AE volunteered to participate in the group.

ACTION: LL to add TFG to review and respond to the external examiners' comments into TFG list

14. Any Other Business

REPORTED:

That 'Graduate School' is now will be called 'Doctoral College'.

15. Dates of Future Meetings

REPORTED:

That the future meetings of the Committee for the 2018/19 and 2019/20 academic years are as follows:

- Thursday, 19 September 2019 from 12:00 to 15:00 in IMC Boardroom 2
(Focused on Course/Module Reviews)
- Wednesday, 30 October 2019 from 12:00 to 15:00 in TBC
(Focused on Academic Quality Handbook)
- Wednesday, 11 December 2019 from 12:00 to 15:00 in IDL Boardroom
- Wednesday, 22 January 2019 from 12:00 to 15:00 in IDL Boardroom

MATTERS TO RECEIVE AND APPROVE WITHOUT FURTHER DISCUSSION

16. Matters Arising on the Minutes (Updates on completed, superseded, no longer required previous actions)

Person Responsible	Action	Status
Jeff Jones	To write a guidance document on how to deal with students querying the marks received	Action no longer required. We are moving to not returning unmoderated marking so this problem will go away since no challenge to academic judgement allowed
Liubov Lobanova	To add Scheduling Policy TFG into TFG list	Complete
	To add Assessment Tariff TFG into TFG list	Complete

17. New Course/Module Proposals, Revisions & Discontinuation

RECEIVED:

Approval Panel Report:

Item	Level	Title	Approval Period	Status	Notes
Revised MA1	PGT	Applied Statistical Methods	Apr-19; Jun-19	Approved	05/07/2019 sent to SEMEducationCommittee@warwick.ac.uk
Revised MA1	PGT	Machine Technology	Apr-19; Jun-19	Pending Changes to Approval Panel	Comments returned to the Module Owner 28/06/2019
Revised MA1	PGT	Computational Statistics with Python	Apr-19	Pending Changes to Approval Panel	Comments returned to the Module Owner 20/05/2019
Revised MA1	UG	Design for Manufacture	Apr-19; July-19	Pending Changes to Approval Panel	Comments returned to the Module Owner 19/07/2019

Revised MA1	PGT	Manufacturing Process Technology	Apr-19; Jun-19	Pending Changes to Approval Panel	Received an updated MA1 from the Module Owner 19/07/2019
Revised MA1	PGT	Project Planning Management & Control	Apr-19; July-19	Approved	25/07/2019 Chair's Action
Revised MA1	UG	Supply Chain Management	Apr-19	Pending Changes to Approval Panel	Comments returned to the Module Owner 20/05/2019
Revised MA1	PGT	Manufacturing Technology	Jun-19	Pending Changes to Approval Panel	Comments returned to the Module Owner 28/06/2019
Revised MA1	PGT	Storage and Warehousing Techniques	Jun-19	Pending Changes to Approval Panel	Comments returned to the Module Owner 28/06/2019
New MA1	PGT	Technology Consultancy Project	Jul-19	Approved	25/07/2019 Chair's Action
New MA1	PGT	MSc Project and Dissertation – Context & Method 30 CAT	Jul-19 (CA)	Approved	18/07/2019 sent to SEMEC and SPA
New MA1	PGT	MSc Project and Dissertation – Analysis and Discussion 60 CAT	Jul-19 (CA)	Approved	18/07/2019 sent to SEMEC and SPA
New MA1	UG	Work Based Project (EDA)	Jul-19	Approved	Sent to SPA 26/07/2019
Revised MA1	PGT	Intelligent Organisations At Work	Jul-19	Pending Changes to Approval Panel	Comments returned to the Module Owner 19/07/2019
Revised MA1	PGT	Product Life-Cycle Management	Jul-19	Approved	25/07/2019 Chair's Action
New MA1	UG	Advanced Thermodynamics	June-19 (CA)	Approved	14/06/2019 sent to SEMEC and SPA
New MA1	PGT	Reputation and Relationship management (RRM)	June-19 (CA)	Pending Changes to Approval Panel	Comments returned to the Module Owner 19/07/2019
New MA1	PGT	Strategic Business Management (SBM)	June-19 (CA)	Pending Changes to Approval Panel	Comments returned to the Module Owner 24/06/2019

New MA1	PGT	Technology Management	June-19 (CA)	Pending Changes to Approval Panel	Comments returned to the Module Owner 24/06/2019
New MA1	PGT	Managing the Multi-Project / Programme Environment (MMPE)	June-19 (CA)	Pending Changes to Approval Panel	Comments returned to the Module Owner 24/06/2019
Revised MA1	PGT	Automation and Robotics	Jul-19	Pending Changes to Approval Panel	Comments returned to the Module Owner 19/07/2019
Revised MA1	PGT	Industrial Engineering	Jul-19	Pending Changes to Approval Panel	Comments returned to the Module Owner 19/07/2019
Revised MA1	PGT	Industrial Engineering for Business Improvement	Jul-19	Pending Changes to Approval Panel	Comments returned to the Module Owner 19/07/2019
Revised MA1	PGT	Strategic Marketing	Jul-19	Approved	25/07/2019 Chair's Action
DA1 form	PGT	Healthcare Operational Management (HOM)	Jul-19 (CA)	Approved	10/07/2019 sent to DA Approvals
DA1 form	PGT	Systems Engineering Technical Leadership (SETL)	Jul-19 (CA)	Approved	16/07/2019 Sent to DA Approvals
Revised MA1	PGT	Performance Evaluation & Control	Jul-19 (CA)	Pending Changes to Approval Panel	Under Further Revision
Revised MA1	PGT	Opportunity Development Realisation	Jul-19 (CA)	Pending Changes to Approval Panel	Under Further Revision
Revised MA1	PGT	Collaborative Working	Jul-19 (CA)	Pending Changes to Approval Panel	Under Further Revision
Revised MA1	PGT	Requirements Management and High-Level Design	Jul-19 (CA)	Pending Changes to Approval Panel	Under Further Revision
Revised MA1	PGT	Systems Engineering Management	Jul-19 (CA)	Pending Changes to Approval Panel	Under Further Revision
Revised MA1	PGT	Technology Management and Innovation	Jul-19 (CA)	Pending Changes to Approval Panel	Under Further Revision

Revised MA1	PGT	Management of Major Projects	Jul-19 (CA)	Pending Changes to Approval Panel	Under Further Revision
Revised MA1	PGT	Systems Integration, Verification & Validation	Jul-19 (CA)	Pending Changes to Approval Panel	Under Further Revision

18. Chair's Actions

RECEIVED:

Chair's Actions Report:

Action	Item	Level	Approved by		Minute reference	Other notes
			Chair	Head of Education		
Approval	Course Regulation Change: Service Management and Design (SMD) at VTC in HK (2019/20)	PGT	JJ		NA	Strategic Marketing and Enterprise Information Systems modules added to the list of optional modules for the SMD Degree at HK VTC; These modules have already been justified as options on the UK Full-time SMD Programme; Globalisation and Outsourcing module removed from SMD at HK VTC
Approval	Course Regulation Change: Programme and Project Management (PPM) at VTC in HK (2019/20)	PGT	JJ		NA	Globalisation and Outsourcing module removed from PPM at HK VTC
Approval	Academic Guidance: Reassessment of failed modules with practical learning outcomes	PGT	JJ		June-19, 4.1.1	Published as part of Academic Quality Guide

19. Updates on New Courses

Nothing to be reported this time.

20. Ongoing Course/Module Task and Finish Groups (TFG)

RECEIVED:

A list of current TFGs:

TFG	Type	LTC when the group was formed	Group Lead	LTC Rep	Group Members	To Report/To Consider
MSc Cyber Security Engineering (CSE)	Course	Aug-18	Peter Norris	KN	Peter Norris, Kath Garnett, Duncan Hine, KN	To Consider: a further discussion on this TFG is needed
MSc International Technology Management (ITM)	Course	Sep-18	Angela Clarke	GK, AHC	Angela Clarke, GK, Cathy Fawcett, Teng Zhang, Clive Reynolds, Kim Stansfield, Dee Nicholls, Michael Mortenson, Steve Raynor, Edwina Jones, AHC	To Report: Tasks completed and TFG no longer needed
HOMS Degree Apprenticeship	Course	Nov-18	Sudi Lahiri	GT	GT, Sue Parr	To Report: Tasks completed and TFG no longer needed
BEng (Hons) Engineering – Degree Apprenticeship (Dyson)	Course	Dec-18	Matt Sokola	KN	Matt Sokola, Kevin Neailey, Matt Jones, (Freeha Azmat), Zeina Rihawi, Alaa Al Sebae, Mir Seyedebrahimi, Glenn Miles, Mohammad Nasr Esfahani, Alex Glazer	
P3M strand to the Senior Leader MSc	Course	Mar-19	Jayne Redfern	GT	Malcolm Wyatt, Peter Harpum, Caroline Tite	

21. Cascade Points

REPORTED:

That the Chair, Secretary and Academic Quality Officer agreed that the following updates should be cascaded to learning and teaching staff:

- Change to late penalties for 19/20: the penalty per working day late will be 5% across all UG and PGT
- Reassessment of failed modules with practical learning outcomes (academic guidance) document published: <https://warwick.ac.uk/fac/sci/wmg/intranet/student/academic/aq-guide/assessment-processes/reassessment-of-failed-modules-with-practical-learning-outcomes>

22. Academic Quality Process Documents List with stability dates

RECEIVED:

Academic Quality Process Documents List with stability dates

Title	Original Author	Last Author	Approving Committee	Status	Date Created	Date Last Reviewed	Last-Revision Date	Date Approved	Version Number	Section for AQ-guide	Stability-Date
Course regulations change request form (word copy)	Amy Collins	Amy Collins	LTC	Approved	01/07/2018	07/08/2018	01/07/2018	07/08/2018	Issue 1 Approved	Course and Module Regulations and Approvals	07/08/2019
Guidance on Course Regulations	Amy Collins	Amy Collins	LTC	Approved	01/07/2018	07/08/2018	01/07/2018	07/08/2018	Issue 1 Approved	Course and Module Regulations and Approvals	07/08/2019
Authorisation of module exemptions for students (Academic guidance)	Amy Collins	Amy Collins	LTC	Approved	01/06/2018	07/08/2018	21/08/2018	21/08/2018	Issue 1 Approved	Course and Module Regulations and Approvals	21/08/2019

Title	Original Author	Last Author	Approving Committee	Status	Date Created	Date Last Reviewed	Last-Revision Date	Date Approved	Version Number	Section for AQ-guide	Stability-Date
Triage process for acceptance of external project supervisors	Jeff Jones	Amy Collins	LTC	Approved	01/07/2018	07/08/2018	21/08/2018	21/08/2018	Issue 2 Approved	Staff Roles	21/08/2019
Suspected Cheating in a University Test – WMG PROCESS	Jeff Jones	Amy Collins	AQSC	Approved	28/11/2017	01/07/2018	30/07/2018	08/10/2018	Issue 2 Approved	Discipline	08/10/2019
WMG Annual Course Review Process	Robin Clark	Amy Collins	LTC	Approved	01/07/2018	20/09/2018	30/10/2018	29/10/2018	Issue 2 Approved	Monitoring and Review	29/10/2019
Learning and Teaching Committee Task-and-Finish Group Rules	Amy Collins	Amy Collins	LTC	Approved	15/10/2018	30/10/2018	26/11/2018	30/10/2018	Issue 1 Approved	Teaching Quality Committees	30/10/2019
Module role outlines	Maddie Langeveld	Amy Collins	LTC	Approved	01/07/2018	30/10/2018	26/11/2018	30/10/2018	Issue 1 Approved	Staff Roles	30/10/2019
Triage process for increase in FT Masters external project supervisors' project number allowance	Jeff Jones	Amy Collins	LTC	Approved	01/09/2017	30/10/2018	26/11/2018	30/10/2018	Issue 2 Approved	Staff Roles	30/10/2019
Plagiarism Panel Guidance	Martyn Pinfold	Amy Collins	LTC	Approved	01/05/2018	30/10/2018	26/11/2018	12/12/2018	Issue 1 Approved	Discipline	12/12/2019
Guidance for Approving Markers	Maddie Langeveld	Maddie Langeveld	LTC	Approved	24/01/2019	25/01/2019	24/01/2019	25/01/2019	Issue 1 Approved	Staff Roles	25/01/2020

Title	Original Author	Last Author	Approving Committee	Status	Date Created	Date Last Reviewed	Last-Revision Date	Date Approved	Version Number	Section for AQ-guide	Stability-Date
Masters level post-module assignment operational terms	Vagelis Kitsos	Amy Collins	LTC	Approved	05/11/2018	29/01/2019	05/02/2019	06/02/2019	Issue 1 Approved	Assessment Processes	06/02/2020
MA1 annotated with WMG guidance	Amy Collins	Amy Collins	LTC	Approved	15/01/2019	29/01/2019	05/02/2019	07/02/2019	Issue 1 Approved	Course and Module Regulations and Approvals	07/02/2020
MSc Programmes Module Assessment Report	Jeff Jones	Jeff Jones			13/08/2018		13/09/2018		none attributed	Assessment Processes	

As at 14th August 2019

Feedback Turnaround Times Report - TERM 3 2018/2019

Period covered:

24 April 2019 – 29 June 2019

A Department	B Total number of modules reported.	C Modules meeting 20 University working days turnaround.	D % Compliant modules in T3 2018-19	E % Compliant modules in T 3 17-18
Chemistry	12	10	83	100
Computer Science	5	5	100	100
Engineering	35	34	97	89
Life Sciences	20	20	100	84
Mathematics	4	3	100	100
Physics	7	7	100	100
Psychology	14	13	93	88
Statistics	3	2	67	77
WMG UG	40	39	98	74
WMG PG	369	324	88	89
WMS MBChB	7	7	100	100
WMS PGT	49	46	94	86

This is a placeholder for paper 019b.SEMEC.19-20 (individual departmental feedback timeliness returns) which is a spreadsheet and can be found online at <https://files.warwick.ac.uk/sciencefacultyboard/browse#SEMEC/2019-20/SEMEC+2019+10+24>

This is a placeholder for paper 020.SEMEC.19-20 (Annual Plagiarism report) which is a spreadsheet and can be found online at <https://files.warwick.ac.uk/sciencefacultyboard/browse#SEMEC/2019-20/SEMEC+2019+10+24>

Report to SEMEC

Reference:	022.SEMEC.19-20	Report classification:	Open
Meeting Date	24 October 2019		
Title	First Year Board of Examiners		
Author / Presenter	Louise Hasler, Secretary to SEMEC		
Purpose of Report			Tick all that apply ✓
To provide assurance	<input type="checkbox"/>	To obtain approval	<input type="checkbox"/>
Regulatory requirement	<input type="checkbox"/>	To highlight an emerging risk or issue	<input type="checkbox"/>
To canvas opinion	<input type="checkbox"/>	For information	<input checked="" type="checkbox"/>
To provide advice	<input type="checkbox"/>	To highlight student or staff experience	<input type="checkbox"/>
University Strategy			
Research	<input type="checkbox"/>	Education	<input checked="" type="checkbox"/>
Innovation	<input type="checkbox"/>	Inclusion	<input type="checkbox"/>
Regional Leadership	<input type="checkbox"/>	Internationalisation	<input type="checkbox"/>
Equality and Diversity			
Are there any equality and diversity implications that would affect the University's obligations under the Public Sector Equality Duty (PSED; to eliminate discrimination, advance equality of opportunity and foster good relations between people) that should be discussed as part of this report? (if yes, details to be provided within the report) [please contact Equality@warwick.ac.uk if you have queries relating to E&D]			Yes <input type="checkbox"/>
			No <input checked="" type="checkbox"/>
Summary of Report			
The purpose of the report is to inform members regarding the activities of the Faculty First Year Board of Examiners in 18-19.			
Recommendation	SEMEC is invited to: (a) Note the report, including the decisions made by the Board.		

Route Map for this Report

Committee	Date	Reference	Action Requested/Taken
SEMEC	24 October 2019	022.SEMEC.19-20	To Note
Board of the Faculty of SEM	11 November 2019		To Note

1. Introduction

Issues created by the evolution of the examination timetable in 2019 resulted in the meeting of the First Year Board of Examiners being moved into the first week of the summer vacation; additionally the changes to the usual chronology of first year, intermediate and final year examinations caused difficulties for departments in producing exam board information in a timely way.

2. Meetings

The Board met on three occasions: to consider the results of summer examinations, to consider the results of students on degree apprenticeship schemes whose results were not available in time for the first meeting (as a sub-set of the Board), and to consider the results of resit examinations

3. Mitigating Circumstances

The impact of timetable changes was noticeable in one area, resulting in cohort level mitigating circumstances being agreed to in respect of EC106, the exam for which was scheduled when teaching was still ongoing, therefore any MORSE student who failed EC106 was permitted to sit it in September as a final attempt.

The Secretary has passed onto the Director of Educational Policy and Quality, and the Deputy Pro-Vice-Chancellor (Education), the Boards' request for advice in case of any future need to apply mitigation at cohort level, as University regulations and guidance does not currently address cohort level issues such as the examination timetable and the student death in the Mathematical Sciences Building.

4. Results

Although there were a 4% increase in the number of students resitting exams in 2018-19, the overall percentage of students required to withdraw rose by only 1%.

Year	Number of students resitting	Percentage able to proceed to year 2	Percentage required to withdraw
18-19	380	78.4%	13.4%
17-18	259	74.5%	12.4%
16-17	332	71.7%	21.4%

The volume of students required to resit and withdraw by department varied considerably:

Required to withdraw/restart/transfer	After <u>summer</u> exams	After <u>September</u> resits	Total
Chemistry	1	3	4
Computer Science	0	3	3
Engineering	0	16	16
Life Sciences	4	13	17
Mathematics	1	4	5
Physics	1	5	6
Psychology	0	2	2
Statistics	0	8	8
WMG	0	10	10
Total	7	64	71

5. Value Added by First Year Board of Examiners

The University only employs a Faculty level board of examiners and mitigating circumstances panel for first year students, and the historical rationale for this is not recorded. Board members add little value to the consideration of results, as the grids have already been checked at departmental level to ensure the correct decisions have been recommended according to each student's results and the course's progression requirements. Furthermore, this creates a lot of Chair's actions for the Chair of the Board *post hoc*. In 2019-20 First Year Boards of Examiners will be scrutinised by the Review of Assessment.