

### **Academic Promotion Application Form – Non Professorial**

This should be completed by the member of staff who is applying for promotion with comments from the Head of Department, and **submitted with an up-to-date CV** in the approved style (available on the Academic Processes webpage) to the Academic Processes Team in Human Resources.

**Prior to completion of this document, please read the document providing details on criteria and evidence and the standards matrix.**

Name of Employee	Martyn Parker	Department	Statistics
Current Appointment	Associate Professor	Level of Promotion applying for?	Reader
FTE	1.0	Career track (R&T- T-focused, R-focused)	Teaching-focussed
Previous appointments held at University of Warwick (please indicate if any of these appointments were part time)	03/2004 to 09/2007 <b>Postdoctoral Researcher</b>  09/2003 to 03/2004 <b>Lecturer in Mathematics</b>  09/1999 to 07/2003 <b>Teaching Assistant (as PhD student)</b>		
Please detail any significant periods of leave (e.g. parental, sickness)	N/A		

<b>Special Circumstances (Optional and will only be used to support a case for promotion)</b>
<i>Given the exceptional circumstances associated with the pandemic and the prolonged period of working from home, those applicants who believe that their promotions preparations were materially affected (even after allowing for the change in timescales) are invited to comment below on the impact of contextual factors on their case using a maximum of 300 words.</i>

Please summarise achievements in the following areas of activity:

<b>Research and Scholarship</b>
<b>Minimum threshold requirement for the level of promotion for which you are applying: 3</b>
<b>Score which you believe your experience demonstrates: 5</b>
<i>Please submit a written summary of your achievements below, using a maximum of 600 words</i>
<p>I have a proven record of accomplishment in developing and successfully deploying scholarly innovations at departmental, institutional, and national level. My teaching-focused career means these activities are primarily action-based with dissemination through project reports, conference presentations, communities of practice and other media. Some highlights include:</p> <p><b>Innovating approaches to curriculum development.</b> I received funding from the Jisc Learning Analytics Research Group to apply and improve useability and impact of learning analytics in curriculum design and review. I worked with stakeholders to evaluate existing processes, build new systems, and create best practice recommendations. Outputs have national and international reach through, for example, conference presentations (June 2020), a case study (June 2020), accepted book chapter (submitted January 2021) and project report (March 2020). This work impacts institutional policy development through my role on the WIHEA Learning Analytics learning circle.</p> <p><b>Action research outputs.</b> I worked on a funded research-based innovation project bringing together universities and students from across the UK, leading my institution's response. This work created sustainable models that provide STEM undergraduates with the skills and abilities to solve real-world problems. The project outcomes impacted the community through, for example, invited contributions to national conferences with the STEM Education Centre report stating, <i>'This HE STEM project has clearly demonstrated that it is possible to introduce teaching initiatives into HE to achieve changes in practice that have a national impact and the potential for sustainability'</i>. Further developments led to student experience enhancements at my previous institution by creating and embedding a student skills portfolio. A practice shared and adopted by the broader institution and recognised by accreditation from the UK's largest awarding body for leadership and management qualifications (ILM). The TEF Gold award panel statement commended <i>'programmes that enable students to learn beyond the curriculum with a wealth of additional opportunities including...extensive skills and career development support.'</i></p> <p><b>Creating scholarly communities of practice.</b> I have established and maintained communities of practice around educational enhancement in learning and teaching. The new departmental community has generated agency for enhancements where it did not exist previously. This work has delivered research-based improvements to the student learning experience, most recently in blended teaching practices. This approach has re-aligned practice across multiple institutions, for example, creating new and diversified approaches to assessment and feedback, which drove NSS feedback improvements from 68% in 2010 to 89%, above the sector average of 73%.</p> <p><b>Informing policy.</b> I have a record of accomplishment in combining inquiry-based approaches with my subject research expertise. I was responsible for investigating trends in my previous institution's student outcome, progression and employability across different POLAR quartiles and backgrounds. I co-authored the final report, which informed other policy developments and strategies, including the Access and Participation Plan. I have drawn this work into the recent departmental curriculum review, ensuring it addresses the interests of diverse groups of students at the design stage.</p> <p>In 2021, the university selected me to become a Fellow of WIHEA for my outstanding contributions to teaching and learning and to support the future development of institutional practices. I am a reviewer for three pedagogical research journals. I have presented work supporting the mathematics' community's</p>

pandemic response, most recently sharing pedagogic best practice in online mathematics examination at the international E-Assessment in Mathematical Sciences conference.

In summary, I deliver scholarly outputs and successes that directly contribute to departmental, institutional, and national knowledge and innovations in learning and teaching. My approach emphasises action-based sustainable developments that benefit institutions and the wider community, including international dissemination on which to build that profile.

## Teaching and Learning

**Minimum threshold requirement for the level of promotion for which you are applying: 7**

**Score which you believe your experience demonstrates: 7**

*Please submit a written summary of your achievements below, using a maximum of 600 words*

I have a sustained record of accomplishment in leading in teaching and learning. My excellence is recognised externally through my Senior Fellowship of the HEA, where my reviewers commended my wide-ranging teaching and learning innovations; election as a Fellow of the Institute for Mathematics and its Applications based on learning and teaching. I have won competitive intuitional awards for my outstanding contributions in inspiring learners and colleagues. Numerous successes further demonstrate my standing in this area; recent highlights include:

**Innovating discipline pedagogy.** Pedagogy indicates our discipline demands active engagement, but delivery is still didactic and passive. I lead by example to create new pedagogy to realign and improve established disciplinary practice creating a change in thinking in a subject that typically utilises only traditional approaches (blackboards). In 2019, I transformed the modules ST111, ST112 and ST208 (around 1000 students) from a conventional blackboard-based approach to a blended model that enriched student engagement, feedback, accessibility, and flexibility. I enhanced the student experience through novel approaches. For instance, interactive notes that stimulate students to take the initiative for their learning; pre-recorded online classes that complement face-to-face delivery; proving frameworks that empower students to regulate their learning through their judgements of achievement against published outcomes. This model provides students with the agency to control their learning approach whilst still retaining explicit support through face-to-face and VLE-based materials. In 2019, SSLC commended my *“high-quality teaching”* and the students’ final module evaluations, average rating 4.6/5 (Overall, this was a good module).

**Pandemic response.** I led colleagues in transforming their pedagogy and practice to a blended model by creating live modules demonstrating practical approaches. This year’s ST208 Mathematical Methods (Term 1, approximately 300 students) shows the success, where student feedback shows the strong positive student experience with final module evaluations showing 100% of students agreeing the module was good (4.7/5) and feedback such as *“I believe that this lecturer's teaching style and dedication to the module content and delivery is unparalleled by any other lecturer I have had so far at university”* and *“The lecturer has definitely done an amazing job in delivering the module in an engaging way.... The lecturer made the module such an enjoyable one and despite the online teaching I felt interaction through the videos as if we were really in a lecture room. I really appreciate how again despite everything being online the lecturer made sure to accompany us through this journey”* Our students take modules from across disciplines at the university, so this feedback is particularly compelling.

**Building online learning capability.** I developed the *“Statistics Consolidation Course”*. This course emphasises embedded discipline-specific online learning skills forming a critical part of our department’s pandemic mitigation. The course provides a framework that simultaneously secures first-year discipline knowledge and builds professional online learning skills in areas such as digital literacy, remote-working, target setting and progress monitoring. The course received strong positive feedback such as *“The*

*Statistics Consolidation Course was incredibly useful to review this year's material.*" and is now part of our long-term strategy of student support and development.

In summary, I have delivered excellence and leadership in learning and teaching, creating enhancements of national and international standard that have positively impacted staff and students. I have led by example to deliver institutional priorities to maintain the student experience during the pandemic.

## Impact, Outreach and Engagement

**Minimum threshold requirement for the level of promotion for which you are applying: 3**

**Score which you believe your experience demonstrates: 4**

*Please submit a written summary of your achievements below, using a maximum of 300 words*

I have national recognition for my expertise in encouraging participation in higher education and creating capability that raises engagement and participation in mathematical sciences. Some highlights include.

**Access and participation in HE.** I have a long-term record in organising outreach activities, focusing on attracting and enabling higher education access for those with low participation. I created and delivered blended mathematics classes to students all over the country whose school or college are otherwise unable to provide specialist tuition. I have led residential programmes for high-attaining students from deprived backgrounds with high tariff offers, such as STEP. I have organised and delivered outreach activities as part of the Royal Institutions Mathematics Master Class Programme and developed a Headstart Residential Programme for A-level students.

**Engaging external stakeholders to deliver national education priorities.** I work with organisations such as Mathematics Education and Innovation and the Advanced Mathematics Support Programme, to drive the government strategy to build mathematics teaching capacity across the UK. This work includes commissions to design and deliver nationally delivered courses that enhance teachers' confidence and professional capability in A-level mathematics/further mathematics and invited conference presentations. I have held roles that include planning and managing support for schools and colleges. I brought together teachers and prominent experts to create new communities of practice, delivering new strategic partnerships creating new subject provision across the Midlands.

**National work to raise the subject profile.** I have regularly represented excellence in mathematics communication and engagement to thousands of school students, teachers, and members of the public from across the UK. Examples include invitations to give public lectures as part of the Leeds Festival of Science, including closing the festival. These activities raise the national profile of mathematics and encourage participation beyond compulsory schooling, helping to make mathematics the most popular A-level subject. The International Gateway for Gifted Youth commissioned me to produce resources supporting the University's international activities.

The above examples demonstrate my sustained and recognised national profile of work with a wide range of bodies that deliver national priorities, including access to higher education.

## Collegiality, Leadership, Management

**Minimum threshold requirement for the level of promotion for which you are applying: 3**

**Score which you believe your experience demonstrates: 5**

*Please submit a written summary of your achievements below, using a maximum of 300 words*

I have an established reputation for leadership, management and developing academic activities. Some recent examples include:

**Strategic pandemic response.** I played a leading strategic role in shaping the department's response to the pandemic. I played a vital role in creating policy, developing staff capability, creating resources and exemplars to maintain our academic provision. I took the lead to devise solutions that ensured we provide accessible mathematics content, a considerable challenge given the esoteric notation. This year's module evaluation show, across multiple modules, an increase in students stating, "This was a good module". I co-designed the department's online examination processes, leading in solving discipline-specific problems around the student-facing experience, online marking protocols, support documentation and co-developing administrative systems to oversee the entire process. SSLC praised the approach for its simplicity, and these processes are now our standard operating procedures.

**Leadership in new course and curriculum development.** I am a member of the department's curriculum review steering group overseeing the new curriculum for all departmental programmes. Drawing on my leadership experience in programme design, review, and quality assurance, I ensured this major departmental initiative adopted a rigorous approach and sector best practice. I led year one curriculum development, creating new modules, programme structure and regulations for our undergraduate provision in MORSE, MathStat and Data Science. The new curriculum embeds improvements in areas such as student experience, participation, assessment, and internationalisation. Department Council approved our work with comments such as "*strikes a great balance between delivery appropriate to generalists and delivery to aspiring specialists.*"

**Championing learning and teaching.** I advocate development and recognition of excellence in Learning and Teaching as a mentor and reviewer for the APP EXP route to HEA fellowship. I chaired dialogic panels and led review teams. I mentor staff, particular those on teaching-focused contracts developing their practice, and many of my mentees have won teaching awards. This year, I created a community of practice for our GTAs that provides training, support, and space to share best practice in engaging blended delivery. I have reviewed URSS applications and sat on the URSS Review Board, contributing to the University's strategic aim to provide students with opportunities to conduct research.

**Course director.** I am the Mathematics and Statistics (MathStat) Course Director overseeing this cross-departmental and interdisciplinary degree. This flexible programme's teaching is distributed across departments with different philosophies bringing unique management complexities and challenges.

Prior to my current position, I held leadership positions with responsibilities that included chairing programme validation panels, oversight and enhancement of the quality and standards of the institution's academic provision and policy development around academic promotion criteria.

Minimum score required	20	Total Score <i>Please add your scores from each of the four areas</i>	21
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**Recommendation from Head of Department (this should include detailed comments on each of the four areas of activity outlined above and a statement about whether or not the claimed score is agreed.)**

***Please indicate below whether you think the applicant has met the level associated with the score they are claiming (either by stating y/n or repeating the claimed score)***

## PERSONAL DETAILS

**Full Name and Title:** Dr Martyn James Parker

**Department:** Statistics

**Title of current appointment:** Associate Professor

### **Education/Qualifications:**

**Doctor of Philosophy, Interdisciplinary Mathematics, University of Warwick, 2003**

Thesis title "Forced Symmetry Breaking of Euclidean Equivariant Partial Differential Equations, Pattern Formation and Turing Instabilities."

Supervisor: Professor Ian Stewart.

**MSc in Mathematics, University of Warwick, 2000**

**MMath Honours (Class 1) in Mathematics, University of Warwick, 1999**

### **Appointments held:**

Senior Lecturer, School of Computing and Mathematics, Keele University  
June 2019 - September 2019 (The university translated Senior Teaching Fellows to Senior Lecturer in Education and Scholarship.)

Senior Teaching Fellow (Grade 9), School of Computing and Mathematics, Keele University  
March 2018 - September 2019

Teaching Fellow (Grade 8), School of Computing and Mathematics, Keele University  
September 2010 - March 2018

Further Mathematics Support Programme, Area Coordinator and Senior Lecturer,  
based at the University of Wolverhampton, September 2007 – 2010

Postdoctoral Researcher, University of Warwick, March 2004 – September 2007

Lecturer in Mathematics, University of Warwick, October 2003 – March 2004

### **Membership of learned or professional societies:**

Senior Fellow, Higher Education Academy (SFHEA). Recognition reference: PR118442

Fellow of the Institute of Mathematics and its Applications (FIMA) and Chartered Mathematician (CMath). Membership Number P0040452

## RESEARCH AND SCHOLARSHIP

### **Publications:**

#### *PEER REVIEWED*

Ed de Quincey and M J PARKER. (2021) User-centred guidelines for the design of curriculum analytics dashboards. Chapter in "Visualizations and Dashboards for Learning Analytics" which will be published by Springer, Cham. (accepted and to appear). (*Both authors contributed equally.*)

Ed de Quincey and M J PARKER, (2020) Embedding Learning Analytics into Programme Review and Curriculum Design, (submitted). *(Both authors contributed equally.)*

M J PARKER, D Bedford, C Bedford, (2020) A mathematics degree supporting improvements in school mathematics, (submitted). (Estimated contribution 70%)

M J PARKER, I N Stewart and M G M Gomes, Forced Symmetry-Breaking of Cubic Planforms. *Internat. J. Bif. Chaos*, 19(5), (2009), 1655-1678. (Estimated contribution 90%)

M. PARKER and I. Stewart. A New Mechanism for Intermittency in Rings of Cells. *Internat. J. Bif. Chaos*. 18(3) (2008), 675-687. (Estimated contribution 90%)

I. Stewart and M. PARKER. Periodic Dynamics of Coupled Cell Networks II: Cyclic Symmetry. *Dyn. Sys.* 23(1) (2008), 17-41. *(Both authors contributed equally.)*

M J PARKER, I N Stewart and M G M Gomes, Partial Classification of Heteroclinic Behaviour Associated with the Perturbation of Hexagonal Planforms, *Dyn. Sys.* 23(2) (2008), 137-162 (Estimated contribution 90%)

M J PARKER, I N Stewart and M G M Gomes, Examples of Forced Symmetry-breaking to Homoclinic Cycles in Three-dimensional Euclidean-invariant Systems. *Internat. J. Bif. Chaos*. 18(1) (2008), 83-107. (Estimated contribution 90%)

I. Stewart and M. PARKER. Periodic Dynamics of Coupled Cell Networks I: Rigid Patterns of Synchrony and Phase Relations. *Dyn. Sys.* 22(4) (2007), 389 – 450. *(Both authors contributed equally.)*

M J PARKER, I N Stewart and M G M Gomes, Forced Symmetry-breaking of Square Lattice Planforms. *J. Dynam. Differential Equations*, 18(1) (2006), 223-255. (Estimated contribution 90%)

*SELECT RECENT SCHOLARLY CONFERENCE/SEMINAR PRESENTATIONS/CONTRIBUTIONS (Not peer-reviewed)*  
(\* indicates invited speaker)

PARKER, M. (2021). *Accessibility in Mathematics, creating a community of practice*. Inclusive Practice & Accessibility Workshop, University of Warwick. 4 February 2021.

PARKER, M. (2020). *Implementation of large-scale online mathematics examination: successes, challenges and thoughts for the future*, E-Assessment in Mathematical Sciences. 1 July 2020. (<https://eams.ncl.ac.uk>) (International dissemination of our approach to online examination in mathematical sciences, led to scholarly discussion with the University of British Columbia.)

PARKER, M and Ed de Quincey. (2020) Embedding Learning Analytics into Programme Review and Curriculum Design. Jisc Learning Analytics Research Projects Update, 20 June 2020. (<https://analytics.jiscinvolve.org/wp/2020/07/08/using-analytics-to-enhance-student-support-and-improve-learning/>) *(Both authors contributed equally.)*

PARKER, M. (2019). Recognising and developing those that 'teach'. Warwick Statistics Teaching Forum, 8th November 2019. (<https://warwick.ac.uk/fac/sci/statistics/news/teachingforum/2019-20/>)

PARKER, M. (2019). Some interesting results about polynomials. Mathematics Education and Innovation Conference, Bath University, 29th June 2019.

PARKER, M. (2019). The development of a skills strand in the undergraduate mathematics curriculum, Liverpool University.

M.J.PARKER, My experiences with technology-enhanced learning, (2018), available from <https://lpdc solutions.blogspot.com/2018/03/> [Accessed: March 2018](\*)

PARKER, M. (2017). Equivariant dynamics, Recent trends in mathematical research, joint conference between Keele University and North-Eastern Federal University Russia, Keele University, 19th – 25th June 2017

PARKER, M. (2017). Mathematics is for everyone, University of Bristol. 4th April 2017(\*)

PARKER, M. (2017). Embedding the Keele Journey and reflective practice within the mathematics programme, Keele Learning and Teaching Conference, 17th January 2017

PARKER, M. (2016). Key Stage 4 mathematics enrichment, University of Huddersfield. 13th June 2016(\*)

PARKER, M. (2016). More to mathematics, Wolverhampton University, Telford. 21st May 2016(\*)

PARKER, M. (2016). The mathematics of animal locomotion, W P Milne Lecture, Leeds Festival of Science, Leeds University, 23rd March 2016  
([https://www.leeds.ac.uk/events/event/3443/the\\_mathematics\\_of\\_animal\\_locomotion-w\\_p\\_milne\\_lecture-leeds\\_festival\\_of\\_science](https://www.leeds.ac.uk/events/event/3443/the_mathematics_of_animal_locomotion-w_p_milne_lecture-leeds_festival_of_science))

PARKER, M. (2015). Take mathematics further! University of Bath. 23rd June 2015(\*)

PARKER, M. (2015). Access to further mathematics conference, Warwick University. 6th March 2015(\*)

PARKER, M. (2015). Mathematics is your future, Bangor University. January 2015(\*)

PARKER, M. (2014). Access to further mathematics conference, Warwick University. 7th March 2014(\*)

PARKER, M. (2013). Applicable mathematics, curriculum impact assessment: Mathematical Modelling and Problem Solving Seminar, National HE STEM Programme, Leeds University, 15th July 2013

PARKER, M. (2013). Year 11 mathematics conference, Bangor University. 20th September 2013(\*)

PARKER, M. (2013). Take mathematics further!, Bournemouth University. 3rd July 2013(\*)

PARKER, M. (2013). Key Stage 4 mathematics enrichment day, University of Huddersfield. 10th July 2013(\*)

PARKER, M. (2013). What can you prove by induction? Mathematics in Education and Industry Conference, Keele University, 29th June 2013

PARKER, M. (2013). Mathematics is for everyone!, University of Gloucester. 11th April 2013(\*)

PARKER, M. (2013). A-level revision conference, Kingston Centre, Stafford. 18th April 2013(\*)

PARKER, M. (2013). A-level revision conference, Blessed William Howard School. 19th April 2013(\*)

PARKER, M. (2013). Access to further mathematics conference, Warwick University. 8th March 2013(\*)

M.J PARKER and D. Bedford, Problem Solving and Mathematical Modelling: Applicable Mathematics, in a National HE STEM Project (with 13 Partners across 8 Universities), (2012), available from <http://www.transmaths.org/mmmps/FinalReportKeele.pdf> [Accessed: 30 April 2014] (Estimated contribution 90%)

PARKER, M. (2012). Applicable Mathematics and Problem Solving, National HE STEM Programme Conference, University of Birmingham, 4th – 6th September 2012

PARKER, M. (2012). Mathematics is your future!, University of Bath. 3rd July 2012(\*)

PARKER, M. (2012). Key Stage 4 mathematics enrichment day, University of Leeds. 6th July 2012(\*)

PARKER, M. (2012). Take mathematics further!, Poole Grammar School. 27th June 2012(\*)

PARKER, M. (2012). Impact of Applicable Mathematics, Symposium on Mathematical Modelling and Problem Solving, National HE STEM Programme, Leeds University, 28th May 2012

PARKER, M. (2012). Mathematical Modelling and Problem Solving, National HE STEM Programme Mathematics Workshop: Output of the Mathematics Strand, Birmingham University, 25th May 2012.

PARKER, M. (2012). Access to further mathematics conference, Warwick University. 9th March 2012(\*)

PARKER, M. (2011). Take mathematics further!, Bournemouth University. 29th June 2011(\*)

PARKER, M. (2011). Mathematics is your future, Exeter University. 24th June 2011(\*)

PARKER, M. (2011). Magic of mathematics, Jersey College for Girls, Jersey. 4th to 5th April 2011(\*)

PARKER, M. (2011). Access to further mathematics conference, Warwick University. 9th March 2011(\*)

PARKER, M. (2011). Year 10 mathematics conference, Salisbury Grammar School for Girls. 22nd March 2011(\*)

PARKER, M. (2011). Mathematics and beyond, Warwick University. 24th March 2011(\*)

PARKER, M. (2011). Key stage 5, A-level conference, Manchester University. 5th January 2011(\*)

PARKER, M. (2010). Magic of mathematics, Northampton University. 17th September 2010(\*)

PARKER, M. (2010). Year 10 mathematics masterclass, Stafford University. 16th September 2010(\*)

In addition, I have coordinated or spoken at over 30 outreach events.

*External reviewer*

**2020 - present. Reviewer.** Research in Learning and Teaching

**2020 - present. Reviewer.** Cognitive Systems Research.

**2018 - present. Reviewer.** Compass journal of learning and teaching.

**Research Grants and Contracts:**

No.	Date Awarded	Project Title/Details Duration of Award	Funding Body	Involvement PI?	Names of Other Holders	Total Awarded	Total to University if amount split
1	2019	Embedding Learning Analytics into Programme Review and Curriculum Design (January 2019 – January 2020)	Jisc Learning Analytics Research Group	Co-investigator  PI: Ed de Quincey (Keele University)	Dr Ed de Quincey, Keele University	£19,980	£19,980
2	2015	Commissioned to develop and deliver a course developing sixth formers' mathematical problem-solving skills. (January – April 2015)	Further Mathematics Support Programme (FMSP)	PI		£4625	£4625
3	2013	Commissioned to produce a mathematical series on cryptography for IGGY knowledge's worldwide learning portal.	International Gateway for Gifted Youth (IGGY)	PI		£3000	£3000
4	2012	Enriching Mechanics Teaching using the Leeds Mechanics Kit.	National HE STEM Grant	Co-investigator	David Bedford, Keele University	£1700	£1700
5	2011-2013	Commissioned to develop and deliver online courses providing school tuition support and teacher professional development	Further Mathematics Support Programme (FMSP)	PI		£2425	£2425
6	2011	Mathematics Arcade.	National HE STEM Grant	Co-investigator	Dr David Bedford, Keele University	£1300	£1300
7	2011 - 2012	Problem Solving and Mathematical Modelling.	National HE STEM Grant		Partnership between 8 HEIs.	£45,000	£9000

					Professor Mike Savage, Leeds University		
8	2011	Commissioned to produce online courses and webinars for FMSP professional development and tuition.	Further Mathematics Support Programme (FMSP)	PI		£8000	£8000

## TEACHING AND LEARNING

### Departmental Duties:

	<u>Length of Course (Contact hours)</u>	<u>Number of Students (approx.) ug pg</u>
<i>Lecture Courses</i>		
<i>ST208 Mathematical Methods</i>	<i>3 hours per week, 30 hours total</i>	<i>280</i>
<i>ST111 Probability A</i>	<i>3 hours per week, 30 hours total</i>	<i>500</i>
<i>ST112 Probability B</i>	<i>3 hours per week, 30 hours total</i>	<i>300</i>
<i>Tutorials/Seminars</i>		
<i>ST111 Probability A</i>	<i>5 hours total</i>	<i>20</i>
<i>ST112 Probability B</i>	<i>5 hours total</i>	<i>20</i>
<i>ST116 Mathematical Techniques</i>	<i>6 hour total (3 weeks for 2 groups)</i>	<i>8</i>
<i>Taught Masters Classes</i>	<i>N/A</i>	<i>0</i>
<b>TOTAL</b>	<b>106</b>	<b>1128</b>

### Research Supervision:

Current Research (MPhil/PhD) Students \*

Individual (unnamed)	Start Date	Qualification aimed for	Anticipated Completion Date	Individual/Joint Supervisor
A	July 2020	MSc	Awarded September 2020	Individual

Number of successful research students since 2019: 1

Number of unsuccessful research students since 2019: 0

### Other Teaching:

#### **2019 - present. Cambridge Assessment.**

Further Mathematics B (MEI) Further Pure with Technology Examiner. Responsible for creation and standardisation of national public body examination within the specification and national standards.

**2017 – present. Joint PhD Student Supervision as part of Erasmus+ scheme:** Lilit Abreyan (2017 – present): “Psychological and Pedagogical basis of teaching probability in primary schools”, Armenian State Pedagogical University.

**2015.** External advisor, BSc (Hons) Mathematics programme revalidation, University of Salford.

**2013 - 2018.** External examiner, BSc (Hons) Mathematics, Staffordshire University

Esteem indicator

#### **2021. Awarded Fellowship of Warwick International Higher Education Academy(WIHEA)**

Competitive application process for Fellowship.

Fellows making an institutional contribution to learning and teaching at Warwick.

#### **2017. Keele Excellence Award in Learning and Teaching.**

A nomination-based competitive award.

Won for ‘Championing Technology Enhanced Learning in Mathematics’

#### **2015. Student Choice Award.**

A nomination-based award.

Won ‘Innovative Teaching through Technology’

### IMPACT, OUTREACH AND ENGAGEMENT

#### **2007 - present. Mathematics Education and Innovation (MEI)**

Invited presenter and contributor to MEI’s work to promote learning and teaching, professional development, and access to higher education.

**2014. Headstart.** Co-developed and led four-day HeadStart residential programme, Keele University

#### **2008 - 2018. Royal Institution of Great Britain**

Mathematics Masterclasses for Young People. Organiser and presenter.

#### **2008 - 2011. International Gateway for Gifted Youth.**

International Mathematics Summer School, Warwick University.

#### **2003 - 2007. National Academy of Gifted and Talented Youth (NAGTY)**

Mathematics Summer School, Warwick University.

## COLLEGIALITY, LEADERSHIP, MANAGEMENT

*Present, details of significant roles included.*

**2020 - present.** Department of Statistics Curriculum review.  
*Redevelop of undergraduate portfolio to enhance the student experience, their learning, engagement, and outcomes*  
Responsibilities:

- *Chair of Year 1 Curriculum Review Subgroup.*
- *Member of Year 2 Curriculum Review Subgroup.*
- *Member of Curriculum Review Steering Group.*

**2020 - present.** Shape of Academic Year group  
*A high-level group considering policy around curriculum, assessment, and resources plus guidelines on delivery mechanisms during the pandemic.*

**2020 - present.** Statistics Management Group.  
*High-level departmental decision and advisory body chaired by the head of department.*

**2019 - present.** Mathematics and Statistics Course Director

- *Together with the Director of Undergraduate Studies to prepare submissions to University Committees and review bodies relating to changes in curricula on the degree.*
- *Ensure the degree operates in a manner to provide a positive student experience.*
- *To liaise with Mathematics on joint degree content, including consulting with them on matters to be considered by the Statistics Teaching Committee, and being aware of and commenting on changes proposed which affect the Mathematics and Statistics degree.*
- *Maintain the course regulations including overseeing the updates of the online module diet.*
- *Preparation of the course handbook and assessment guides.*

**2019 - present.** Member of the Statistics Teaching Committee.  
*Responsibilities include procedures and processes concerning admissions, teaching, examinations, and tutorial support within the Department at both undergraduate and MSc level.*  
*Responsibilities are the approval of module proposals, consideration of the external examiners reports, and the conducting of the annual course reviews.*

**2019 - present.** Member of the Statistics Department IT committee  
*Responsibilities include devising feasible short-, medium- and long-term strategies for the UG, PG and Staff computing needs of the Department.*

**2019 - present.** Mathematics curriculum liaison.  
Represent the Statistics Department at the Mathematics Teaching Committee with a view to enhancing the student experience.

**2019 - present.** Member of WIHEA Learning Analytics learning circle.  
*Impact of learning analytics on student experience, including:*

- *issues of privacy, consent, ethics, and responsibilities of gathering, analysing, and using student data*
- *opportunities for analysis and intervention*

**2019 - present.** Assessor and mentor for Academic and Professional Pathway for Experienced Staff route to HEA fellowship.  
*Responsible for review and ensuring the quality and standards for the externally accredited award.*

*Selected past responsibilities with details of significant roles and outcomes*

**2019 - 2020.** Second-year examinations officer.  
*Responsible to the Chief Exam Secretary for overseeing the preparation, moderation, procedures, mark entry and resulting classification for second year examinations in the Statistics Department and other exam-related tasks as required.*

**2019 - 2020.** Second-year tutor.  
*To work with the Senior Tutor on the administration of the tutoring system for second year undergraduate students of the Statistics Department.*

**2018 - 2019.** Elected member of Keele University Senate, representing the Natural Science Faculty.  
*Responsible for academic policy in relation to teaching and research and to ensure that the University's academic standards are properly observed*

**2017 - 2019.** Member of the Keele University Quality Assurance and Standards Committee (QAS).  
*Responsibility included:*

- *oversight and enhancement of the quality and standards of the University's academic provision.*
- *ensure that all quality management processes operating at university, faculty, or school level maximise their potential of further enhancing academic programmes and the student experience.*
- *ensure that the University has a rigorous and responsive quality assurance framework in place which is fully informed by external expectations, including those from the Office for Students (OfS), the QAA, and professional bodies*

**2016 - 2019.** Lead Internal Reviewer for Keele University HEA CPD Route Application and member of Keele University HEA CPD Route recognition panel.

**2016 - 2019.** Mentor for Keele University HEA CPD Route.

**2015 - 2019.** Director of Education and chair of the School of Computing and Mathematics Education Committee.  
*I led all School learning and teaching activities and responsible for the implementation of the University quality assurance procedures, maintaining and enhancing the sharing of good practice and promoting innovation within the School.*

*Chaired the School Education Committee work with a team that includes Programme Directors, the School Equality, Diversity and Inclusivity Champion, the School Manager, Directors of Marketing and Recruitment, and Director of Internationalisation to drive the School's strategic vision, which contributes directly to the University Education strategy. Some key responsibilities included:*

- *The promotion of equality and diversity and ensuring equality of opportunity in the way the School conducts itself, and in the transaction of its business.*
- *Approving proposals for new modules developed by the school.*
- *Approving proposals for the withdrawals, suspensions, and revisions to existing taught programmes of study within the school.*

- *Considering external examiner reports on taught programmes of study and approving school responses to them, with a view to identifying school themes and other issues requiring escalation.*
- *Maintaining and enhancing the sharing of good practice and promoting innovation within the school.*
- *Leading the School yearly programme review process and creating the School final report submitted to the University.*
- *Receiving reports from the Student Staff Voice Committee(s) and programme committees, and considering issues raised as appropriate.*

- 2015 - 2019.** Member of Natural Sciences Faculty Learning and Teaching Committee.
- 2010 - 2019.** Division lead for technology-enhanced learning projects.
- 2010 - 2019.** Member of the Mathematics Courses Committee.
- 2019.** Member of the Business School Internal Quality Audit Panel.  
*Responsible for proving the University with an assurance that the Business School was discharging their responsibilities as it should and that it is offering a high-quality student experience. Provides a 'critical friend' to help shape school strategy.*
- 2018.** Chair of MSc Physician Associate Studies Validation Panel  
*A Validation Panel is responsible for being a 'critical friend' and to scrutiny new programmes and make a recommendation on approval of the proposal to QAS*
- 2018.** School lead for British Computer Society accreditation.  
*All programmes accredited by the BCS*
- 2017.** School lead for the Institute of Mathematics and its Applications accreditation.  
*All programmes accredited by the IMA*
- 2017.** Member of the Foundation Year Internal Quality Audit Panel.
- 2017 - 2018.** School lead for Internal Quality Audit (programme revalidation and review).  
*Outcome, all programmes revalidated without conditions. Commendations for good practice*
- a. The Panel commended the School for their Athena SWAN bronze award and urged colleagues to build on the good practice that was already in place with regard to equality, especially with regard to senior appointments.*
- b. The excellent relationships with students as evidenced by student feedback, module reviews and the School's NSS results were commended.*
- c. The School was commended on the excellent use of module feedback in terms of the actions taken to respond to this and the fact that this is made available to all students across all programmes, clearly showing the value placed by the School on responding to this feedback.*
- d. The innovative teaching methods used within the School, in particular the use of technology to enhance learning was commended.*
- e. The Panel noted the school's outstanding use of student data to understand trends and deliver improved student outcomes.*
- f. The School was commended on its clear commitment to outreach and widening participation work, including the ways in which this is linked to the curriculum e.g. opportunities for students to do a school placement.*
- 2017.** Member of the School of Pharmacy Internal Quality Audit Panel.
- 2016 – 2019** Keele University Skills Portfolio Review Panel.  
*Responsible for monitoring the quality and standards of the award ILM accredited and the related processes; suggest, plan, and evaluate enhancements for the award.*

- 2016 - 2018.** Member of 'Student Attainment Gap Working Group'.  
*Analysis of student retention and attainment data at University, Faculty and School level, in particular identifying areas of risk for students and areas in which these groups are attaining well.*
- Comparison of students' retention and attainment data with those across the sector at institutional level (broken down by ethnic groupings), and of broader groupings at discipline level. Comparison of student access to student support, including Student Learning and engagement with extenuating circumstances processes.*
- Reported to University Executive to identify areas of weakness, with action plans, and of strength, with a view to identifying and sharing practice that is effective in supporting BME and WP students as part of access and participation plan.*
- 2016.** Doctoral Progression Board Member.  
**2016.** Member of Foundation Year Validation Panel.  
**2016.** Study Abroad, Task and Finish group member.  
*Asked by the University to sit on the task and finish group for the University's Study Abroad Review. I worked on policies for presentation to University Senate regarding the proportion of Keele programme content in a year abroad. University Senate approved the new policies developed by the group.*
- 2016.** Member of MA Music and MA Creative Music Technology Validation Panel.  
**2015.** Member of Natural Science and Liberal Arts Validation Panel.  
**2014 - 2015.** Member of the MMath Integrated Masters Working Group.
- 2014.** Led development of 'Mathematics with International Year' programme.  
*I led the development of a new international programme, Mathematics with International Year. The success of this programme led to its model rolling out across the University and is now the predominate exchange programme.*

**Date Curriculum Vitae Prepared:**

**9<sup>th</sup> January 2021**