

## Postgraduate Induction

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#### PG induction events

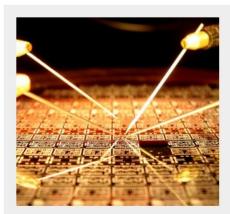
#### Tuesday – Welcome and Induction

- 1.oopm: Welcome from DGS & HoD.
- 1.10pm: Welcome from Postgraduate Committee and current students
- 1.20pm: Outreach.
- 1.3opm: Induction for all students.
- 2.oopm: Short break
- 2.20pm: SCRTP overview of scientific computing.
- 2.3opm: Health & Safety, run by Stephanie Brown
- 3.oopm: Wellbeing session
- 4.oopm: Social Event on Physics Concourse

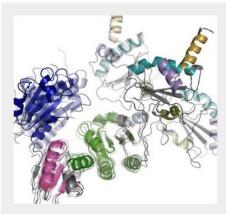
#### Wednesday

- og.30-10.15am Photos taken of new students, Physics common room, P564
- 12noon-3.oopm Teaching, B2.04/5, Physics Concourse

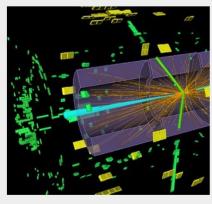
## Research at Warwick Physics



**Condensed Matter Physics** 



**Theoretical Physics** 



**Elementary Particle Physics** 



Astronomy & Astrophysics



Centre for Fusion, Space & Astrophysics



**Medical Physics** 

#### Overview of PhD course

Stage:	PhD Year 1	PhD Year 2	PhD Year 3 & PhD Year 4	MSc By Research
Activities:	<ul> <li>Research</li> </ul>	• Research	• Research	• Research
	<ul> <li>Physics Graduate School</li> <li>Doctoral Skills</li> <li>Teaching</li> </ul>	<ul> <li>Physics Graduate School</li> <li>Doctoral Skills</li> <li>Teaching</li> </ul>	<ul> <li>Thesis writing, submission, viva.</li> <li>Doctoral Skills</li> <li>Teaching</li> </ul>	Thesis writing, submission and assessment.

## **Expected Commitment**

All students are entitled to expect a supportive environment and a sensible work-life balance. While many projects will require occasional out-of-hours work or intensive efforts ahead of deadlines, these should not be considered the expected norm.

Having said that, students also have a responsibility to commit to academic work and put in an amount of effort commensurate with standard office hours in an average week.

#### Research: Supervision

#### Daily supervision:

- Supervisor [plus any co-supervisor(s)]
- Research/technical staff; other postgraduates, postdocs

#### Progress monitoring:

- Feedback supervisor
- Director of Graduate Studies

### Degree requirements: PhD

- Original research suitable for publication in multiple journal articles or communications
- "A substantial original contribution to knowledge, which is, in principle, worthy of publication. The thesis shall be clearly and concisely written and well argued and shall show satisfactory knowledge of both primary and secondary sources. In addition, it shall contain a full bibliography, and, where appropriate, a description of methods and techniques used in the research."
- Attend seminars and colloquia
- Physics Graduate School
- Doctoral Skills: Personal Development & Training

# Degree requirements: MSc by Research

- Original research suitable for publication in a scientific journal:
   "A thesis submitted in fulfilment of the requirements of a degree of MSc by
   Research shall be clear and concisely written, show evidence of originality of
   knowledge and in interpretation and shall be also judged on its scholarly
   presentation. In addition, it shall contain a full bibliography."
- Attend seminars and colloquia
- Graduate-level physics: optional courses
- Personal development and training: optional courses

## Research: Progress Monitoring

#### Key Checkpoints:

- 1 Month Research Outline (MSc and PhD)
- 3 Month Progress Report (MSc)
- 6 Month Progress Report (PhD)
   Progress Update (MSc)

Should be discussed with supervisor and submitted to feedback supervisor by deadline on webpage

**May:** Progress monitoring meetings with feedback supervisor and DGS Poster assessment exercise (PhD)

### Research: Progress Monitoring

As research students you'll find some weeks crawling while others fly by!

#### Some advice:

- Keep clear records of what you're doing
- Make the most of the departmental environment
- Agree intermediate goals, targets and objectives as you go along
- Read research literature regularly, and take notes
- Evaluate your own progress regularly and be proactive in addressing issues

#### Physics Graduate School

- Graduate-level physics courses
- 6 graduate credits, over first 2 years of PhD
- Optional for MSc by Research students
- Courses offered by:
  - Midland Physics Alliance Graduate School (MPAGS)
  - Graduate modules taught at Warwick by Physics, Chemistry, Maths, Engineering, Computer Science, Centre for Scientific Computing, Life Sciences etc.
  - Centres for Doctoral Training (e.g. Heterogeneous Systems, Diamond)
  - External courses

#### Physics Graduate School – more details

- See <a href="https://warwick.ac.uk/fac/sci/physics/current/postgraduate/pgs">https://warwick.ac.uk/fac/sci/physics/current/postgraduate/pgs</a>
- Students must self-certify completion of modules and keep their own records
- MPAGS website: <a href="https://warwick.ac.uk/fac/sci/physics/mpags">https://warwick.ac.uk/fac/sci/physics/mpags</a>

#### Physics Graduate School – more details

- 1 MPAGS course = 1 graduate credit
- If choosing other taught Warwick modules check the conversion from the module's "CATS" number to the graduate credits, via our web page

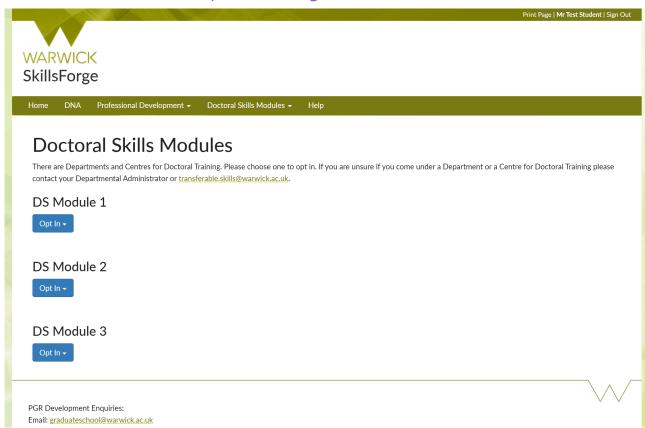
https://warwick.ac.uk/fac/sci/physics/current/postgraduate/pgs

- See web page also for details on how to find and sign up for modules
- Examples of external courses: conferences with tutorials;
   summer/winter schools need confirmation from DGS

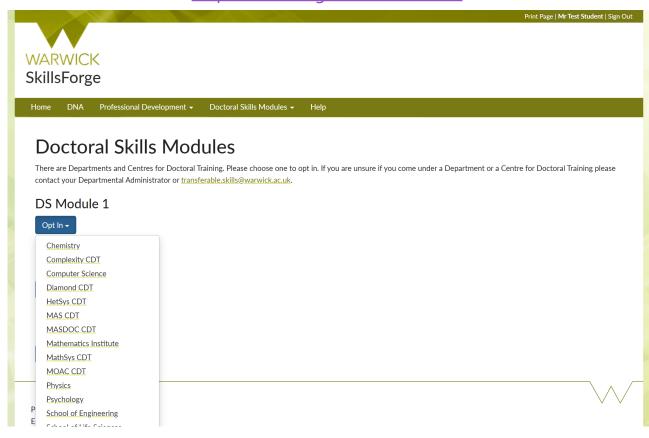
# Doctoral Skills: Personal Development and Training

- Develop your skills as a researcher
- Enhance your transferable skills
- Booking and monitoring system: SkillsForge
- Optional enrolment on the Postgraduate Certificate in Transferable Skills in Science (PGCTSS) for additional qualification.

https://skillsforge.warwick.ac.uk/



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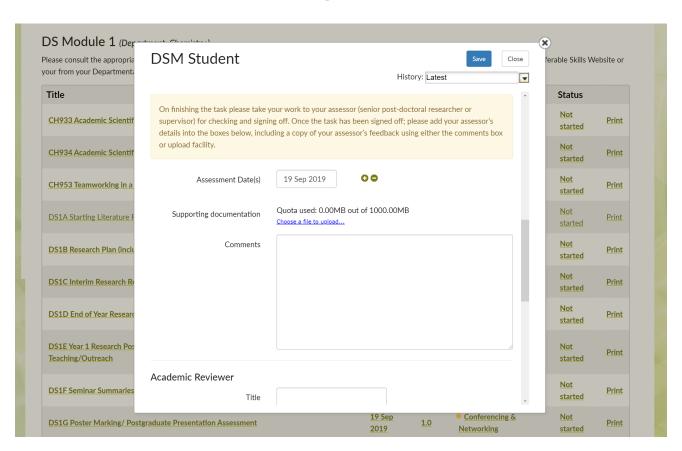
https://skillsforge.warwick.ac.uk/

DS1A Starting Literature Review - 5 Research Papers	<u>19 Sep</u> <u>2019</u>	4.5	Research Focussed	Not started	Print
DS1B Research Plan (including budget) - Notes on follow-up and changes	<u>19 Sep</u> <u>2019</u>	<u>1.5</u>	Research Focussed	Not started	Print
DS1C Interim Research Report	<u>19 Sep</u> <u>2019</u>	3.0	Research Focussed	Not started	Print
DS1D End of Year Research Report	19 Sep 2019	<u>4.5</u>	Research Focussed	Not started	Print
DS1E Year 1 Research Poster /or/ Summary of Seminar to a General Audience /or/ Teaching/Outreach	<u>19 Sep</u> <u>2019</u>	<u>1.6</u>	<ul> <li>Research Focussed</li> <li>Conferencing &amp;</li> <li>Networking</li> </ul>	Not started	<u>Print</u>
DS1F Seminar Summaries (5)	19 Sep 2019	<u>2.5</u>	<ul><li>Conferencing &amp;</li><li>Networking</li></ul>	Not started	<u>Print</u>
DS1G Poster Marking/ Postgraduate Presentation Assessment	19 Sep 2019	<u>1.0</u>	<ul><li>Conferencing &amp;</li><li>Networking</li></ul>	Not started	Print
DS1H Meeting Planning	19 Sep 2019	<u>1.6</u>	<ul><li>Conferencing &amp; Networking</li><li>Transferable Skills</li></ul>	Not started	Print
DS1I Web page	19 Sep 2019	<u>1.6</u>	<ul> <li>Conferencing &amp;</li> <li>Networking</li> <li>Transferable Skills</li> </ul>	Not started	<u>Print</u>

DS Module 2

Ont In

https://skillsforge.warwick.ac.uk/



## **Teaching**

- Opportunities to help deliver undergraduate teaching:
  - Examples classes, lab demonstrators, marking lab reports
- Personal benefits: Develop your communications skills; confidence; knowledge of physics/maths; ability to understand how to break down and present a complex idea in an accessible way.
- Employability benefits: Great for teaching/academic roles; demonstrable role of responsibility and management.
- Training from the department (Wednesday) and wider courses via SkillsForge.
- Can work towards Accreditation as an Associate of the Higher Education Academy or the PGCTSS

## Time Management

Some students find it hard to balance research with doctoral skills and teaching:

- Doctoral skills are crucial for employability and to develop research technique as well as transferable skills, but they should not dominate your time.
- Doctoral skills submissions should evaluate and demonstrate your progress through the course but not impede it.
- The length of time required for each task will vary, but in general should be of order hours, rather than days or weeks.
- Consider whether something you're already doing for your research can be used for doctoral skills (or vice versa), rather than starting from scratch.

#### **Seminars**

- Departmental Colloquia, normally Wednesdays 4.3opm (fortnightly)
  - Can be on any topic in physics, important for background knowledge
- Research Group Seminars
  - Specific knowledge relevant to your project or field
- Post-graduate seminars, Thursdays at 5pm (optional)
  - Opportunity to practice talks, provide feedback to peers and learn about other activity in the department

## Student Welfare and Peer Support

- Talk to fellow students
- PG SSLC: wellbeing rep; informal coffee group
- Talk to PG administrators

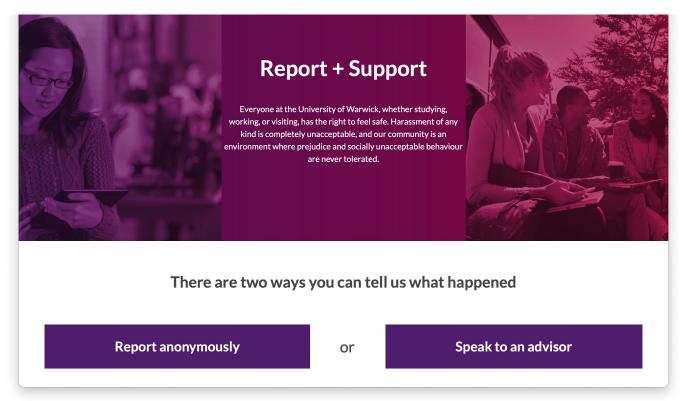


- Talk to me! (can mediate/advise on any actions to take)
- Talk to head of department [Prof. Mark Newton]





## Report & Support



https://reportandsupport.warwick.ac.uk

#### Key action points for all students

- Finalise enrolment, IT services account, any paperwork.
- Research group specific admin (e.g. Centre for Scientific Computing account; request training and access for equipment).
- Discuss research project outline with supervisor, confirm reading list, identify training needs.
- Prepare Project Outline to be submitted in Week 4: research plan & training plan.
- Get familiar with the departmental PG web pages & Course Handbook <u>https://warwick.ac.uk/fac/sci/physics/current/postgraduate/</u>
- Identify and enrol for relevant Physics Graduate School courses.
- Identify 1<sup>st</sup> year **Doctoral Skills** actions.

# Health and Safety

It is important to discuss the health and safety implications of your research with your supervisor, and complete sensible risk assessments.

https://warwick.ac.uk/fac/sci/physics/intranet/healthandsafety

...and finally

Good luck, and enjoy your course!