University of Manchester

Faculty of Science and Engineering

Collaborative (Dual/joint/split site) award PhD Programmes

Student and Supervisors Handbook

2026-27

version 1.7

October 2026

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1. Introduction

This Handbook contains information specifically relevant to the Faculty of Science and Engineering Dual/Joint/Split site award PhD Programmes. Information relevant to all postgraduate students in the Faculty of Science and Engineering can be found in the Faculty Doctoral Academy Website , which should be used as a reference in conjunction with this Handbook. This Handbook will cover basic information across the whole of your student journey and will direct you to externally stored information where applicable, including any contact details that you may need during your studies.

2. List of collaborative award programmes

The Faculty of Science and Engineering offers a number of Dual, Joint, and Split award PhD Programmes.

Dual-award	A postgraduate research degree studied across two institutions, both of which are degree awarding. Researchers who complete a dual-award programme receive two degree certificates (one from each institution).
Joint-award	A postgraduate research degree studied across two institutions, both of which are degree awarding. Researchers who complete a joint-award programme receive one degree certificate from one of the two institutions.
Split-site award	A postgraduate research degree studied across two institutions, only one of which (The University of Manchester) is a degree awarding institution. Researchers who complete a split-site award programme receive one degree certificate from Manchester.

The specific programmes currently taking place within the Faculty are:

	Partner Institution	**Award type**
University of Manchester and	A*Star	Split-site award
	Indian Institute of Science Bangalore	Joint award
	Indian Institute of Technology Kharagpur	Dual award
	Peking University	Dual award
	Tsinghua University	Dual award
	University of Melbourne	Dual award
	University of Tokyo	Dual award
	University of Chile	Dual award

3. Collaborative awards leadership

The FSE collaborative awards are led by the Internationalisation team and the Postgraduate Research Team. During your induction you may hear welcome messages from the following:

- Prof Sophia Ananadiou, Associate Dean for Internationalisation
- Dr Iain Crowe, Global Lead for Collaborative Programmes Internationalisation
- Dr Jon Pittman, Associate Dean for Postgraduate and Early Career Researchers
- and Dr Zhongdong Wang, Programme Director for the THU and PKU Dual Award Programmes

4. Collaborative awards management and administration

Collaborative award programmes are administered by the Programmes team in the Faculty of Science and Engineering Doctoral Academy. We act as the first point of contact of your queries related to your stay at Manchester from recruitment to graduation. If you have any questions about any aspect of your programme, please contact any of the following:

Peter Duncan	PGR Operations Officer	**Fse.doctoralacademy.specialistprogrammes@manchester.ac.uk**
Paulina Pejka	PGR Coordinator	**Fse.doctoralacademy.specialistprogrammes@manchester.ac.uk**
Andrew Crossland	PGR Administrator	**Fse.doctoralacademy.specialistprogrammes@manchester.ac.uk**

5. Student guidance and support

FSE student guidance can be found at the following link covering topics such as:

- Starting your research (including registration, obtaining a student card, gaining access to facilities, obtaining a personal computer, and desk space)
- Progression
- Thesis submission
- Changes of Circumstances
- Graduation
- General student support
- Finance and funding
- Disability support
- Wellbeing and mental health support
- Other resources (including International Society, carers and parents' resources, sports, faiths)

6. Regulations, Funding, and Registration

6.1 University regulations

The University ordinances and regulations, policies and codes of practice for postgraduate research can be found at: **http://www.rbess.manchester.ac.uk/graduate/**

It is your responsibility to familiarise yourself with the University regulations and policies which govern your research degree. At the first meeting with your supervisor, you will be asked to declare that you have read and understand these documents. You are specifically advised to familiarise yourself with the **Code of Practice for Postgraduate Research Degrees**.

A student will abide under the University ordinances and regulations which applied at the time of entry to their programme of study. However, changes to University and Faculty policy and guidance will apply to all students, and with immediate effect.

6.2 Holiday and Special Leave

Over the course of your studies, you are entitled to take holiday leave and/or special leave, subject to approval.

Your total holiday leave period must not exceed 8 weeks in total per academic year.

Your special leave period must not exceed five days per academic year. This is in addition to your holiday leave entitlement.

To request this, please, submit a Holiday / Special Leave Application Form to the Welfare & Support Team on fse.doctoralacademy.support@manchester.ac.uk after you have already confirmed approval from your supervisor. The Welfare & Support Team will be able to send you a copy of this form.

Please refer to the Leave of Absence Procedures for further details.

6.3 Stipend and Research Training and Support Grant (RTSG)

The Doctoral Academy Funding team is responsible for the disbursement of your stipend and for granting you access to your RSTG account code, and should be in contact with you shortly after registration is completed with all the relevant information.

Your RTSG is governed by the same regulations as those for recipients of UKVI funding. Please refer to this guidance document to see what you can and cannot use your RTSG for.

6.4 Purchasing Consumables

6.4.1 Whilst at the University of Manchester

Information regarding making purchases of consumables is outlined here. You can contact your Department's Operations Team to make a purchase. See below for contact details:

School of Engineering	Chemical Engineering	CEOps@manchester.ac.uk
	Computer Science	CSOps@manchester.ac.uk
	Mechanical and Aerospace Engineering	MAEOps@manchester.ac.uk
	Civil Engineering and Management	CEMOps@manchester.ac.uk
	Electrical and Electronic Engineering	OEA-EEE@manchester.ac.uk
School of Natural Sciences	Chemistry	Chemistry-OPS@manchester.ac.uk
	Earth and Environmental Sciences	EES-Ops@manchester.ac.uk
	Materials	Materials-Ops@manchester.ac.uk
	Mathematics	Maths-OPS@manchester.ac.uk
	Physics and Astronomy	Phys-Ops@manchester.ac.uk

In order to make a purchase you will need an RTSG code, which will be provided to you by the Funding Team upon joining the University.

6.4.2 Whilst at the Partner Institution

You will be assigned a budget when away at a partner institution. Please, contact your supervisor or admin contact at the partner institution to confirm the process for purchasing consumables (see Appendix 1).

6.5 Yearly registration and progression completion

Every year you will be prompted to re-register by Student Services, please do complete re-registration even if you are away from the University.

When away from Manchester, you will still need to complete Progression milestones on eProg.

Not completing yearly registration and failing to complete progression milestones will prevent you from receiving your stipend.

7. Supervisor guidance and responsibilities

FSE supervisor guidance can be found at the following link.

7.1 Individual Graduate Research Agreement (IGRA) or Study Plan

An agreement between the student and all primary supervisors will be signed off following registration, the Programmes team will be in contact to provide a template specific to their programme that will need to be signed by student and supervisory team, then returned to the Programmes team. Any change (including change of circumstances e.g. interruption to study, extensions to study and sick leave, and changes in pattern of stay at the two institutions etc.) to the original individual agreement will need to be approved by the two institutions, so please contact the Programmes team in the first instance to discuss the requested change.

7.2 Export control (EC)

The primary University of Manchester supervisor has personal liability if exporting controlled goods/data outside the UK borders. To determine whether export controls apply to your current or proposed project and require a licence, you must make the following checks (you can also use the Research Risk Profiler Tool) and if necessary you will need to submit an Export Controls Compliance request.

It is also the primary University of Manchester supervisor's responsibility to be in contact with the Regulatory Compliance team to check the outcome of the EC licence.

For any EC advice please contact the Regulatory Compliance team directly.

8. Travelling to Manchester

8.1 Visa

The Programmes team will be in contact between six and three months before your scheduled arrival in Manchester to initiate the process of obtaining a visa to travel to UK. The Admission team will release the Confirmation of Acceptance for Studies or CAS. Please be aware that you will need a valid Academic Technical Approval Scheme or ATAS clearance (if applicable) and a valid English requirement (if applicable) in place in order to obtain a CAS.

If you are starting the programme at the partner institution, it is likely that you ATAS clearance will be expired (it is only valid for 6 months and it needs to be in place to register to the PhD programme) and you will need to apply for a renewal.

If you are travelling to Manchester 2 years after the beginning of your programme, it is likely that your English requirement certificate will have expired, as it's only valid for 2 years and it needs to be in place to register to the PhD programme, so please be aware that you will have to have a valid certificate.

8.2 UK Bank account

You will need a UK bank account whether you are self-financing and wish to set up a direct debit for your fees or you are a funded student and will receive a stipend. Please find guidance here on how to apply for one.

9. Travelling to the partner institutions from Manchester

9.1 Visa

In order to sort out the visa to travel to the partner institution please contact the partner institution (Appendix 1).

9.2 Travel Checklist

While you do not need to request approval to spend time at the partner institution, please find below a check list that student and University of Manchester should be considering in preparation of your transfer to the partner institution (Appendix 2).

9.3 Insurance

When travelling to the partner institution, you may be eligible for cover by the University of Manchester travel insurance policy. This is provided that:

- you notify the Insurance Team in advance;
- confirm all additional information as requested;
- and are travelling for no more than 24 months.

Please, contact the Insurance Team on insurance@manchester.ac.uk for more details.

Each partner institution and each country have different requirements and regulations around any medical insurance provision. These may also depend on other factors such as your nationality, your country of residence, requirements stipulated by the visa etc. Always check with the partner institution contact to ensure that you are covered.

	Medical insurance paid for	National health insurance scheme available	Own health insurance policy only
A*STAR	Y	X	X
IISc Bangalore	X	X	Y
IIT Kharagpur	X	X	Y
Melbourne University	Y	X	X
Tsinghua University	X	Y	X
Peking University	X	Y	X
University of Tokyo	X	Y	X

NB: The above schemes refer to medical insurance **only** and do not cover any repatriation costs.

The Doctoral Academy recommends that you take out your own individual travel and health insurance policy that covers any healthcare and repatriation costs not already covered by either the University of Manchester's or the partner institution's policies.

9.4 Induction checklist

Students who commence their collaborative programme at UoM will be sent an induction checklist when they first travel out to the partner institution. This checklist will be generated by My Placement and aims to ensure that all students received adequate introduction to the partner institution, its facilities, and the health and safety policies.

Students should expect the checklist to arrive into their UoM email address within two weeks of arrival. Reminders will be sent until this step is completed. If your travel dates change from what they have been declared on your IGRA, please, notify the Specialist Programmes Team as soon as possible, forwarding a signed copy of the updated IGRA. Those on a UK student visa are at risk of breaching the terms of their visa if the travel dates are not recorded accurately.

9.5 Non-Research Travel

Travel for non-research purposes for Dual/Joint/Split site award international student visa holders is limited to 60 consecutive days, including whilst you are away at the partner institution. In other words, your visa only permits up to 60 consecutive days of travelling to a place other than the University of Manchester and/or the partner institution for your programme. If you exceed this period, you will have to apply for a new visa and you may be required to return to your home country.

10. Progression, Review, and Final Examination

10.1 Progress and Review

An academic supervisor and an independent supervisor will conduct annual formal review meetings to assess your progress, known as annual reviews. Please, refer to the PGR Code of Practice: Progress and Review for a detailed policy.

For details of the review process at the partner institution you should refer to the Appendix relating to your specific partner institution.

10.2 Final Examination

All University of Manchester PGR students are required to submit electronic versions of their thesis or dissertation (examination and final corrected versions) via eProg submission. You will be assessed via an oral defence also known as a viva. Please, refer to the Appendix relating to your specific partner institution programme for details on how the defence will be conducted.

NB: Some programmes may include taught assessments in addition to the thesis and defence. Please, refer to the Appendices for further details.

Further details relating to the University of Manchester's Submission and Examination policies are in the PGR Code of Practice. You can also send any questions to the Submission/Examination Support Team on FSE.doctoralacademy.exams@manchester.ac.uk.

11. Graduation

Upon successful completion of the programme, a student will be eligible to attend the graduation ceremony and receive a diploma in accordance with their programme type:

- Split-site award – one certificate awarded by the University of Manchester only
- Dual-award – two certificates awarded by the University of Manchester AND the partner institution
- Joint-award – one certificate awarded by the lead institution ONLY (EITHER the University of Manchester OR the partner institution)

Further information about graduation is located on the Graduation website.

12. Events

The Specialist Programmes Team at the Doctoral Academy will organise dedicated Welcome Events at the start of each academic year to enable students from collaborative PhD programmes to network with one another and foster connections that may help during their programme. These events will include an overview of useful practical information relevant to their programme, signpost to relevant central services for further information, advice, and guidance, and offer a space to ask any questions that may arise.

Once a year around June all students on collaborative PhD award programmes who are in Manchester at the time will be invited to an annual symposium. The symposium is an opportunity to share your research so far, hear about research projects of other collaborative PhD award students, network with peers studying other programmes, and celebrate any achievements to date. You may invite colleagues undertaking other PhD programme to attend with you, however, the primary audience of these events are fellow collaborative PhD award programmes.

Where relevant and appropriate for the programme, the Specialist Programmes Team will arrange pre-departure meetings for groups of collaborative PhD award students due to travel to the partner institution within the next several months. These meetings will focus on the practical information and details necessary for travel abroad, including but not limited to information about overseas visa

applications, stipends and scholarships, booking travel, registration process at the partner institution, insurance policies, and more. All students invited to these events must make time to attend and should encourage their supervisors to attend alongside. You should expect to attend these sessions in person unless advised of alternative arrangements.

13. Peer experience

Your fellow collaborative award PGRs wrote about their experience, which may help give you a more well-rounded perspective on what to expect. You can read their blog post here. If you would like to add to this account and share your experiences, please, contact the Specialist Programmes Team.

Appendix 1. Contact details of partner institutions

The contacts listed below are the first points of contact whilst you are at the partner institution for any matter, academic, administrative or pastoral.

Partner institution	Email
University of Melbourne	International Research Training Group Coordinators, Team jointphd-admin@unimelb.edu.au
Tsinghua University	Department of Astronomy: Ms Gu Tao, tgu@tsinghua.edu.cn Department of Biology: Dr Cao Yu Tang, tangcaoyu@tsinghua.edu.cn Department of Chemistry: Mrs Na Liu hxxyz@mail.tsinghua.edu.cn Department of Electrical Engineering: Prof Sun Kai sun-kai@mail.tsinghua.edu.cn Department of Physics: Prof Zhen Hu zhenhu@tsinghua.edu.cn
Peking University	College of Chemistry: Dr Lin Niu niulin@pku.edu.cn College of Environmental Science and Engineering: Yang (Nancy) Jiao 2406790068@pku.edu.cn
Indian Institute of Technology Kharagpur	Koushiki Mukherjee, International Relations Executive, koushiki@adm.iitkgp.ac.in
Indian Institute of Science Bangalore	Office for International Relations, oir.admin@iisc.ac.in Amita Sneh, amitasneh@iisc.ac.in
University of Tokyo	Graduate School Office, School of Science, daigakuin.s@gs.mail.u-tokyo.ac.jp Graduate School Office, School of Engineering, daigakuin.t@gs.mail.u-tokyo.ac.jp
A*Star	Eunice Heng, Eunice_Heng@a-star.edu.sg
University of Chile	Gabriel Easton Vargas, geaston@ing.uchile.cl

Appendix 2. Travel checklist

- The University has returned to 'normal' pre-travel approval for overseas business travel and are following this travel risk assessment flowchart. This means you need to assess the overall risk rating of the country you are travelling to and then follow the appropriate guidelines for your country. To check what the risk status of a country is please visit the AIG website. You will need to register using your University email address and the University's policy number which is: 0015903034. Select "country report" and input the country name, then click "check risk."

i) Overseas travel to a country of moderate / low risk
   - review / adapt a generic risk assessment for overseas business travel with additional consideration of personal health risk, local Covid risks, health care infrastructure, as well as restrictions for entry in country. ☐

ii) Overseas travel to a country on the list of high risk countries OR Overseas travel to areas where the FCDO has advised 'against all travel' or 'against all but essential travel'
   - prepare a specific risk assessment for high risk countries with additional consideration of personal health risk, local Covid risks, health care infrastructure, as well as restrictions for entry in country, working with your FSE Safety team. ☐

- When travelling, you must also consider Export Control implications, particularly if you are traveling to one of the key countries. You will need to check whether due diligence checks are required. This must be done in tandem with the RA. If due diligence is required this must done in advance of booking the trip, please coordinate with Export Control Compliance (ECC team) to ensure this is done. The traveller has personal liability if exporting controlled good/data outside the UK borders. Please inform your budget holder Export Control checks have been done if your travel is to a Key Country. I confirm that I have considered and reviewed and checked for any Export Control implications. ☐

- I confirm that I have completed a pre-travel risk assessment and have discussed any items of concerns with my Supervisor/s and FSE Safety team. ☒

- I have checked the Foreign, Commonwealth and Development Office (FCDO) website for the latest travel advice. ☐

- I understand that it is my responsibility to obtain all required travel documentation (e.g. visas). ☐

- I understand that Postgraduate Researchers (PGRs) remain standard users of Key Travel and can create travel itineraries, but not book travel. Therefore, PGRs should contact their Departmental Operations email address, and an Operations staff member will help book your travel for you. ☐

- I understand that it is my responsibility to process any expenses through the PR7 process. ☐

- I am aware of the University Travel Insurance for Students Undertaking Work or Study Placements and have obtained personal travel insurance if required. ☐

- I am aware of the University of Manchester Travel Policy.

- For fieldwork travel, I have obtained research ethics clearance.

Appendix 3.1. University of Manchester and University of Melbourne dual award specific guidance

Please, refer to the Cookson Scholarship Dual Award Student and Supervisor Handbook located in the UOM-MANC-MELB-dual-award-PhD Teams site.

Appendix 3.2. University of Manchester and Tsinghua University dual award specific guidance

Supervisors and advisors

A joint supervisory team will be established by a minimum of two academic staff autonomously, each from respective Institution, who share the same academic interests. The supervisory team will provide academic support throughout the whole training process.

Pastoral support is available at both Institutions. At Manchester, each Student has an 'advisor' who is part of the supervisory team, but provides non-academic, pastoral support. At Tsinghua pastoral support is provided via a panel.

Formal Progression

Progression and assessment will be managed via an overarching board/committee, so that there is an agreed outcome for each Student. Day to day management of Students will rest with the Institution they are located at during the different stages of their Jointly Awarded Project (i.e. students will be managed by Tsinghua University when they are at Tsinghua and by the University of Manchester when they are in Manchester). During the first year that the student spends at Tsinghua they will need to take a year of taught modules, which will count towards their degree. There are no requirements for taught courses to be undertaken while at Manchester. The taught courses will include a basic course in Chinese language.

During their stay in Tsinghua, students will have a minimum of 13 credit requirement count towards their degree by taking courses. Detailed requirements are as follow, with a slight difference between students from Tsinghua and Manchester.

Biology

Table 1.1: Credit-bearing modules for Tsinghua students

Course type (total credit required)	Course name	Credit
Compulsory Public Courses (4)	Compulsory Short Courses	2
	Foreign Language Courses (English)	2
Compulsory Specialty Courses (1)	Ethics and Scientific Misconduct in Life Science Research	1
Specialized Academic Courses (3)	Course list (credits): Topics in Tumour Biology (1), Progress in Developmental Biology (2), Molecular evolution and origins of life (1), Effective scientific communication workshop (2), Developmental Cell Biology: the cellular foundations of Development (2)	1-3
Compulsory tasks (5)	Literature review and research proposal	1
	Academic activities	2
	Qualification exam	1
	Student academic exchange activities	1

Table 1.1: Credit bearing modules for Tsinghua students

Table 1.2: Credit-bearing modules for Manchester students

Course type (total credit required)	Course name	Credit
Compulsory Public Courses (4)	Language Course of Chinese	2
	Chinese Cultural and Society	2
Compulsory Specialty Courses (1)	Ethics and Scientific Misconduct in Life Science Research	1
Specialized Academic Courses (3)	Course list (credits): Topics in Tumour Biology (1), Progress in Developmental Biology (2), Molecular evolution and origins of life (1), Effective scientific communication workshop (2), Developmental Cell Biology: the cellular foundations of Development (2)	1-3
Compulsory tasks (5)	Literature review and research proposal	1
	Academic activities	2
	Qualification exam	1
	Student academic exchange activities	1

Physics and Astronomy

Table 2.1 Credit-bearing modules for Astronomy dual PhD students

(a) Compulsory public modules (4 credits) - 公共必修（4 学分）

No 序号	Module no 课组号	Module name-课程名称	C/E 课程类别	Credit 学分	Hours 总学时
1	00000007	中国概况课 Lecture Series on Contemporary China	C-必修	2	32
2	00000002	第一外语类 1st Foreign Language	C-必修	2	32

Note 1: A Student recruited from Manchester needs to study module 1 and module 2 in Table 2.1(a). According to their Chinese skills, a Student is recommended to select either 64203012，Elementary Chinese A or 64203022，Elementary Chinese B as their module 2.

(b) Academic and Professional Skills (1 Credits) - 学术与职业素养（1 学分）

No 序号	Module no 课程号	Module name-课程名称	C/E 课程类	Credit 学分	Hours 总学时
1	60920011	论文写作与博士后工作申请训练 Scientific Writing and Postdoc Application Training	C- 必修	1	16

(c) Compulsory Speciality Module for MSc or MPhys entry (5 Credits) - 硕士起点学生专业必修 （5 学分)

No 序号	Module no 课程号	Module name-课程名称	C/E 课程类	Credit 学分	Hours 总学时
1	70430203	天体物理中的辐射机制 Radiative Processes in Astrophysics	E-选修	3	48
2	70430213	物理宇宙学 Physical Cosmology	E-选修	3	48
4	80320253	高能天体物理 High Energy Astrophysics	E-选修	3	48
5	80430282	星系动力学 Galactic Dynamics	E-选修	2	32
6	80430533	恒星物理学 Stellar Physics	E-选修	3	48
7	80430543	星系物理学 Galactic Physics	E-选修	3	48
8	80430623	高等实测天体物理 Advanced Observational	E-选修	3	48
9	80480122	观测天体物理专题 Special Topics in Observational Astrophysics	E-选修	2	32
10	80480132	理论天体物理专题 Special Topics in Theoretical Astrophysics	E-选修	2	32
11	80920013	星际介质物理 Physics of the Interstellar Medium	E-选修	3	48
12	70920023	基础实测天体物理 Basic Observational Astrophysics	E-选修	3	48
13	70920013	计算天体物理 Computational Astrophysics	E-选修	3	48
14	80920023	等离子天体物理 Plasma Astrophysics	E-选修	3	48
15	80430682	粒子宇宙学理论选题 Theoretical topics in particle cosmology	E-选修	2	32

Note 2: A Manchester Student with an MSc or MPhys degree needs to take minimum 5 credits modules from Table 2.1(c) as compulsory.

(d) Compulsory Specialised Modules for BSc entry (20 credits) -本科起点学生专业选修（20 学分）

No 序号	Module no 课程号	Module name-课程名称	C/E 课程类	Credit 学分	Hours 总学时
Fundamental Astrophysics Courses (no less than 9 credits) - 专业基础类课程（不少于 9 学分）					
1	70430203	天体物理中的辐射机制 Radiative Processes in Astrophysics	E-选修	3	48
2	70430213	物理宇宙学 Physical Cosmology	E-选修	3	48
3	70920023	基础实测天体物理 Basic Observational Astrophysics	E-选修	3	48
4	80430533	恒星物理学 Stellar Physics	E-选修	3	48
5	70920013	计算天体物理 Computational Astrophysics	E-选修	3	48
6	80920013	星际介质物理 Physics of the Interstellar Medium	E-选修	3	48
Specialty Courses (no less than 5 credits) - 专业类课程 （不少于 5 学分）					
7	80320253	高能天体物理 High Energy Astrophysics	E-选修	3	48
8	80430282	星系动力学 Galactic Dynamics	E-选修	2	32
9	80430623	高等实测天体物理 Advanced Observational Astrophysics	E-选修	3	48
10	80430543	星系物理学 Galactic Physics	E-选修	3	48
11	80920023	等离子天体物理 Plasma Astrophysics	E-选修	3	48
12	80430682	粒子宇宙学理论选题 Theoretical topics in particle cosmology	E-选修	2	32
Seminar Courses (4 credits) - 专题研讨类课程 （4 学分）					
13	80480122	观测天体物理专题 Special Topics in Observational Astrophysics	C-必修	2	32
14	80480132	理论天体物理专题 Special Topics in Theoretical Astrophysics	C-必修	2	32

Note 3: In addition to the modules listed in Table 2.1(d), Manchester Students may select discipline-related Specialised academic courses given in Table 2.1(e) to earn credits transferable according to institutional policies. A Manchester Student with a BSc degree needs to take the 4 credits compulsory modules and at least one 3 credits elective module in Table 2.1(d), and other credits can be transferred if they have taken modules from Table 2.1(e) at Manchester and obtained a letter from Manchester to certify that the Manchester modules bear sufficient credits which are transferable to be equivalent to less than half of the required degree credits at Tsinghua.

Note 4: The credit transfer will follow the rule that a Manchester 10 credits module is equivalent to the Tsinghua 6 credits module and a Manchester 15 credits module is equivalent to the Tsinghua 9 credits module.

(e) Specialised Modules for MPhys at Manchester that Students can take and transfer credits to Tsinghua

Title	Code	Credit rating
Origin of the Solar System	EART32201	10
Planetary Evolution	EART35202	10
Mathematical Methods for Physics	PHYS30672	10
Object-Oriented Programming in C++	PHYS30762	10
Radio Astronomy	PHYS40591	10
Gauge Theories (M)	PHYS40682	10
Gravitation (M)	PHYS40771	10
Early Universe	PHYS40772	10
Galaxy Formation	PHYS40992	10

(f) Specialised Academic Modules (4 Credits) - 专业必修（4 学分）

No 序号	Module no 课程号	Module name-课程名称	C/E 课程类	Credit 学分	Hours 总学时
1	99990032	学术活动与学术报告 Research Seminar	C-必修	2	-
2	99990041	文献综述与选题报告 Literature Review and PhD Topic Report	C-必修	1	-
3	99990061	资格考试 Qualifying Examination	C-必修	1	-

Chemistry

Table 3.1 Credit-bearing modules for Students entering with a master's degree or MChem degree

(a) Compulsory public modules (4 credits) - 公共必修（4 学分）

No 序号	Module no 课组号	Module name-课程名称	C/E 课程类别	Credit 学分	Hours 总学时
1	00000007	中国概况课 Lecture Series on Contemporary China	C-必修	2	32
2	00000002	第一外语类 1st Foreign Language	C-必修	2	32

Note 1: A Student recruited from Manchester needs to study module 1 and module 2 in Table 2.2.1(a). According to their Chinese skills, a Student is recommended to select either 64203012，Elementary Chinese A or 64203022，Elementary Chinese B as their module 2.

(b) Academic and Professional Skills (2 Credits) - 学术与职业素养（2 学分）

No 序号	Module no 课程号	Module name-课程名称	C/E 课程类别	Credit 学分	Hours 总学时
1	60440041	化学专业研究生学术写作 Scientific Writing for Chemistry Graduate Students	C- 必修	1	16
2	60440031	化学实验室安全 Lab Safety of Chemistry	C- 必修	1	16

(c) Specialised Academic Modules (2 Credits) - 学科专业课（2 学分）

No 序号	Module no 课程号	Module name-课程名称	C/E 课程类	Credit 学分	Hours 总学
1	90440012	现代化学前沿问题讲座 Lecture on Frontiers of Modern Chemistry	C-必修	2	32

(d) Compulsory Modules (Students entering with a master's degree or MChem degree must complete no fewer than 4 credits) -必修环节（硕士起点学生不少于 4 学分）

No 序号	Module no	Module name-课程名称	C/E 课程类	Credit 学分	Hours 总学
1	99990032	学术活动与学术报告 Academic Activities and Symposia	C-必修	2	-

2	99990041	文献综述与选题报告 Literature Review and Presentation of Thesis	C-必修	1	-
3	99990061	资格考试 Qualification Examination in the Major Field	C-必修	1	-

Note 2: A Manchester Student with an MSc or MChem degree needs to take the 4 credits compulsory modules in Table 2.2.1 (d).

Table 3.2 Credit-bearing modules for students entering with a bachelor's degree

(a) Compulsory public modules (no less than 5 credits) - 公共必修（不少于 5 学分）

No 序号	Module no 课组号	Module name-课程名称	C/E 课程类别	Credit 学分	Hours 总学时
1	00000007	中国概况课 Lecture Series on Contemporary China	C-必修	4/2	64/32
2	00000002	第一外语类 1st Foreign Language	C-必修	2	32

Note 1: A Student recruited from Manchester needs to study module 1 and module 2 in Table 2.2.2(a). In the case that a Student selects a 2 credits module in the Lecture Series on Contemporary China and a 2 credits Elementary Chinese, and obtains 4 credits, they will need to transfer one credit from the Specialised Academic Modules, to meet the requirement of “no less than 5 credits” for part (a).

(b) Academic and Professional Skills (2 Credits) - 学术与职业素养（2 学分）

No 序号	Module no 课程号	Module name-课程名称	C/E 课程类别	Credit 学分	Hours 总学时
1	60440041	化学专业研究生学术写作 Scientific Writing for Chemistry Graduate Students	C- 必修	1	16
2	60440031	化学实验室安全 Lab Safety of Chemistry	C- 必修	1	16

(c) Compulsory Modules (4 Credits) - 必修环节（4 学分）

No 序号	Module no 课程号	Module name-课程名称	C/E 课程类	Credit 学分	Hours 总学
1	99990032	学术活动与学术报告 Academic Activities and Symposia	C-必修	2	-
2	99990041	文献综述与选题报告 Literature Review and Presentation of Thesis	C-必修	1	-
3	99990061	资格考试 Qualification Examination in the Major Field	C-必修	1	-

(d) Specialised Academic Modules (Students entering with a bachelor's degree must complete no fewer than 17 credits) - 学科专业课（本科起点学生不少于 17 学分）

No 序号	Module no	Module name-课程名称	C/E 课程类	Credit 学分	Hours 总学
Basic Theory Modules (no less than 4 Credits) for BSc entry - 基础理论课（不少于 4 学分）					
1	70440214	理论与计算化学 Theoretical and Computational Chemistry	C-必修	4	64
Core Speciality Modules (no less than 3 modules with 9 Credits) for BSc entry - 专业核心课（不少于 3 门 9 学分）					
2	70440024	高等有机化学 Advanced Organic Chemistry	E-选修	4	64

3	70440033	高等无机化学 Advanced Inorganic Chemistry	E-选修	3	48
4	70440173	有机波谱学 Organic Spectroscopy	E-选修	3	48
5	70440223	高等分析化学 Advanced Analytical Chemistry	E-选修	3	48
6	70440233	高等物理化学 Advanced Physical Chemistry	E-选修	3	48
7	70440243	合成有机化学 Synthetic Organic Chemistry-chiral Synthesis	E-选修	3	48
8	80440283	材料化学导论 Introduction to Material Chemistry	E-选修	3	48
9	80440293	功能高分子化学 Functional Polymeric Materials	E-选修	3	48
10	70440162	光化学原理 Principles of Photochemistry	E-选修	2	32
11	80440383	超分子化学 Supramolecular Chemistry	E-选修	3	48
Elective Speciality Modules for BSc entry (no less than 2 courses with 4 Credits) - 专业选修课（不少于 2 门 4 学分）					
12	90440012	现代化学前沿问题讲座 Lecture on Frontiers of Modern Chemistry	E-选修	2	32
13	60440023	现代仪器分析方法与实验 The Methods and Experiments of Modern Instrumental Analysis	E-选修	3	48

14	70440102	配位化学 Coordination Chemistry	E-选修	2	32
15	70440192	X-射线晶体结构分析 X-Ray Crystal Structure Determination	E-选修	2	32
16	70440262	微流控细胞分析 Microfluidics for Cell Analysis	E-选修	2	32
17	70440272	现代高分子化学实验 Lab. of Contemporary Polymer Chemistry	E-选修	2	32
18	80440093	电化学原理 Principles of Electrochemistry	E-选修	3	48
19	80440132	元素有机化学 Elemental Organic Chemistry	E-选修	2	32
20	80440153	生物有机化学 Bio-organic Chemistry	E-选修	3	48
21	80440213	材料分析化学 Analytical Chemistry of Materials	E-选修	3	48
22	80440323	生命分析化学 Bio-Analytical Chemistry	E-选修	3	48
23	80440332	有机光电材料与器件 Organic Photoelectronic Materials and Devices	E-选修	2	32
24	80440363	高分子合成化学 Synthetic Chemistry of Polymer	E-选修	3	48
25	80440431	现代光学成像分析基础 Fundamentals of Modern Light Microscopy and Imaging Analysis	E-选修	1	24

26	80440442	现代化学生物学 Modern Chemical Biology	E-选修	2	32
27	80440452	大分子表征方法概论 Introduction of macromolecular characterization methods	E-选修	2	32
28	80440462	先进碳材料 Advanced Carbon Materials	E-选修	2	32
29	80440483	物理化学表征技术与原理 Characterization techniques of physical chemistry	E-选修	3	48
30	80440493	激光化学 Laser Chemistry	E-选修	3	48
31	90440021	分析化学研究方法（上） Analytical Chemistry Research Methods (1)	E-选修	1	16
32	90440031	分析化学研究方法（下） Analytical Chemistry Research Methods (2)	E-选修	1	16

Note 3: In addition to the modules listed in Table 2.2.2(d), Manchester Students may select discipline-related Specialised academic courses given in Table 2.2(e) to earn credits transferable according to institutional policies. A Manchester Student with a BSc degree needs to take the 5 credits compulsory modules and at least one 2 credits elective module in Table 2.3(d), and other credits can be transferred if they have taken modules from Table 2.2.2(e) at Manchester and obtained a letter from Manchester to certify that the Manchester modules bear sufficient credits which are transferable to be equivalent to less than half of the required degree credits at Tsinghua.

Note 4: The credit transfer will follow the rule that a Manchester 10 credits module is equivalent to the Tsinghua 6 credits module and a Manchester 15 credits module is equivalent to the Tsinghua 9 credits module.

(e) Specialised Academic Modules for MSc in Chemistry at Manchester that Students can take and transfer credits to Tsinghua

Title	Code	Credit rating
Advanced Chemistry Topics	CHEM60112	15
MSc Core Chemistry 3	CHEM60211	15
MSc Core Chemistry 2	CHEM60311	15
MSc Core Chemistry 4	CHEM60312	15
MSc Core Chemistry 1	CHEM60411	15
Analytical Chemistry II	CHEM60531	15
MSc Integrated Spectroscopy and Separations	CHEM61201	15

Electrical Engineering

Table 4.1 Credit-bearing modules for Electrical Engineering dual PhD students

(a) Compulsory public modules (4 credits) - 公共必修（4 学分）

No 序号	Module no 课组号	Module name-课程名称	C/E 课程类别	Credit 学分	Hours 总学时
1	00000007	中国概况课 Lecture Series on Contemporary China	C-必修	2	32
2	00000002	第一外语类 1st Foreign Language	C-必修	2	32

Note 1: A Student recruited from Manchester needs to study module 1 and module 2 in Table 2.2(a). According to their Chinese skills, a Student is recommended to select either 64203012，Elementary Chinese A or 64203022，Elementary Chinese B as their module 2.

(b) General Courses in EE (4 Credits) - 学科通识课（4 学分）

No 序号	Module no 课程号	Module name-课程名称	C/E 课程类别	Credit 学分	Hours 总学时
1	60220041	Professional Ethics for Electrical Engineers 电气工程师职业素养	C-必修	1	16
2	80220012	New Developments in Electrical Engineering and Power Systems 电工技术和电力系统新进展	C-必修	2	32
3	80220211	Simulation Technology in Electrical Engineering 电气工程仿真技术	C-必修	1	16
4	80220451	Deep Learning and Its Application Technology 深度学习及其应用技术	C-必修	1	16

(c) Specialised Academic Modules (Students entering with a master's degree or MEng degree must complete no fewer than 2 credits/Students entering with a bachelor's degree must complete no fewer than 16 credits) -专业选修（硕士起点学生不少于 2 学分/本科起点学生不少于 16 学分）

No 序号	Module no 课程号	Module name-课程名称	C/E 课程类别	Credit 学分	Hours 总学时
1	70220022	Numerical Calculation of Electromagnetic Fields 电磁场数值计算	E-选修	2	32
2	70220042	Advanced Electric Power Network Analysis 高等电力网络分析	E-选修	2	32
3	70220062	Gas Discharge 气体放电	E-选修	2	32
4	70220082	Transient of AC Motor and Its System 交流电机及其系统暂态	E-选修	2	32
5	70220092	Selected Topics of Electromagnetic Measurement 电磁测量选论	E-选修	2	32
6	70220133	Modern Control Theory and Its Engineering Applications 现代控制理论与工程应用	E-选修	3	32
7	70220242	Dynamic Analysis of Power Systems 电力系统动态分析	E-选修	2	32
8	80220023	Modern High Voltage Experimental Technology 现代高电压实验技术	E-选修	3	32

9	80220032	Fundamentals of Pulse Power Technology 脉冲功率技术基础	E-选修	2	32
10	80220092	Electromagnetic Compatibility 电磁兼容	E-选修	2	32
11	80220132	Principles and Applications of FACTS/DFACTS FACTS/DFACTS 的原理及应用	E-选修	2	32
12	80220142	LabVIEW Programming and Virtual Instrument Design LabVIEW 编程及虚拟仪器设计	E-选修	2	32
13	80220162	Electromagnetic Transient Analysis 电磁暂态分析	E-选修	2	32
14	80220172	Uncertainty Analysis of Power Systems 电力系统不确定性分析	E-选修	2	32
15	80220232	Relay Protection 继电保护	E-选修	2	32
16	80220252	Principles and Applications of Power Electronic Devices 电力电子器件原理与应用	E-选修	2	32
17	80220272	High Voltage Transmission Technology 高压输电技术	E-选修	2	32
18	80220312	Modern Electric Power System Planning 现代电力系统规划	E-选修	2	32
19	80220332	Complexity of Power Systems and Security Technology of Large-scale Power Grids 电力系统复杂性与大电网安全技术	E-选修	2	32

20	80220342	Engineering Game Theory 工程博弈论	E-选修	2	32
21	80220392	Energy Storage Technology and Its Applications in Renewable Energy Power Systems 储能技术及其在新能源系统中的应用	E-选修	2	32
22	80220442	Principles and Control of Large-capacity and Multi-level Power Electronic Converters 大容量多电平电力电子变换器原理及控制	E-选修	2	32
23	80220462	Network Analysis and Operation Control of Active Distribution Networks 主动配电网网络分析与运行调控	E-选修	2	32
24	80220472	High Voltage External Insulation 高电压外绝缘	E-选修	2	32
25	80220522	Electromagnetic Compatibility Experimental Technology 电磁兼容实验技术	E-选修	2	32
26	90220022	Frontiers of Dielectric Polymer Materials 介电高分子材料前沿	E-选修	2	23

Note 2: A Manchester Student with an MSc or MEng degree needs to take the 4 credits compulsory modules from Table 2.3(c).

Note 3: In addition to the modules listed in Table 2.3(c), Manchester Students may select discipline-related Specialised academic courses given in Table 2.3(d) to earn credits transferable according to institutional policies. A Manchester Student with a BSc degree needs to take the 4 credits compulsory modules and at least one 2 credits elective module in Table 2.3(c), and other credits can be transferred if they have taken modules from Table 2.3(d) at Manchester and obtained a letter from Manchester to certify that the Manchester modules bear sufficient credits which are transferable to be equivalent to less than half of the required degree credits at Tsinghua.

Note 4: The credit transfer will follow the rule that a Manchester 10 credits module is equivalent to the Tsinghua 6 credits module and a Manchester 15 credits module is equivalent to the Tsinghua 9 credits module.

(d) Specialised Academic Modules for MSc in EPSE or REaCT at Manchester that Students can take and transfer credits to Tsinghua

Modules available for Students to select in MSc in EPSE		
Title	Code	Credit rating
Power System Operation and Economics	EEEN60321	15
Smart Distribution Networks	EEEN60322	15
Electrical Machines and Power Electronic Modelling	EEEN60341	15
Power System Dynamics and Stability	EEEN60342	15
Power System Plant and Asset Management	EEEN60371	15
Power System Planning and Resilience	EEEN60392	15
Power System Analysis and Control	EEEN60631	15
Power System Protection and Communications	EEEN64422	15
Modules available for Students to select in MSc in REaCT		
Interfacing clean energy systems	EEEN60402	15
Understanding Energy as a 'system' driving modern society	EEEN60411	15
Solar Energy Technologies	EEEN60421	15
Zero Carbon Built Infrastructure	EEEN60422	15
Marine Energy: Wind, Wave & Tidal	EEEN60431	15

(e) Specialised Academic Modules (4 Credits) - 专业必修（4 学分）

No 序号	Module no 课程号	Module name-课程名称	C/E 课程类	Credit 学分	Hours 总学时
1	99990032	学术活动与学术报告 Research Seminar	C-必修	2	-
2	99990041	文献综述与选题报告 Literature Review and PhD Topic Report	C-必修	1	-
3	99990061	资格考试 Qualifying Examination	C-必修	1	-

Students may retake a course that they have failed. Failing more than three degree courses (including the retake ones) or failing a degree course(s) three times in a row will result in being expelled from Tsinghua. All of the courses listed above are delivered in English for students on the dual award programme.

Compulsory assessment during study at Tsinghua will include:

a. Literature review and research proposal: Students need to finish their research proposal at the end of their first year in Tsinghua with a written report of no less than 5,000 words. A joint progress committee will provide formal assessment.
b. Academic activities: During their stay in Tsinghua, students need to attend at least 15 academic activities, including academic conference and colloquiums.
c. Qualification exam: will be the same as the annual review held by Manchester (see 10.1).
d. Supervisory arrangements: academic reports given by Students every Wednesday in order to improve communication. Every Student needs to attend no less than 15 times during their stay in Tsinghua.
e. Students will also be required to attend mandatory safety and academic training given within 2 weeks after admission.

Progression will be monitored and managed jointly between the two Institutions. The students will need to meet the requirements of both Institutions.

• Manchester — annual review in years 1, 2 and 3.

• Tsinghua — qualification exam in the 2nd year.

Examination / Assessment / Award

Students will submit their thesis to Tsinghua University first and will undergo the pre-defence as per Tsinghua University's regulation, constituting part (a) of the process. When the pre-defence is successful, an identical copy of the revised thesis is submitted to both institutions and students will undertake two thesis defences: one in person at Tsinghua and one at the University of Manchester as per the UoM regulations (see 10.2), constituting part (b) of the process. Two separate examination panels will be appointed to meet the requirements for both Institutions in terms of numbers and eligibility of its members.

Each department at Tsinghua University may have its own schedule for conducting the thesis defence. Generally, students may undertake a thesis defence at Tsinghua University during the following times for the following departments:

Department of Astronomy	June; December
Department of Biology	June; October; December
Department of Chemistry	June; October; December
Department of Electrical Engineering (incl. Shenzhen International Graduate School)	June; October; December
Department of Physics	June; December

Each department at Tsinghua University may allow for the thesis defence to be conducted remotely (online) under specific circumstances. Please contact your Tsinghua supervisor and the named department contact for details on what constitutes eligible circumstances and how to apply.

Students can apply for thesis defence once they have gained approval from both Tsinghua and Manchester on the submission of their revised thesis.

Students have a maximum of 12 months following their thesis submission to finalise the PhD at Tsinghua University. Any student who exceeds that will be withdrawn from the dual award programme and awarded a single PhD award by the institution whose award criteria they meet.

Students who successfully complete a Jointly Awarded Project at both Institutions, including completing both defences in their entirety, will graduate with a jointly awarded PhD dual degree from both Manchester and Tsinghua, and will receive a degree certificate from each Institution which will clearly state that the degree was obtained through a Jointly Awarded Project. The degree titles must use the same wording on the certificate of both Institutions; Tsinghua require students to publish at least one paper of impact factor 4 prior to the award.

Both institutions must be credited on any papers.

Program Duration and time allocated between Institutions

The program is four years long. The time will be allocated as outlined in the Individual Graduate Research Agreement. Any changes to the time allocated between institutions will need to be authorised by both institutions.

Manchester-based students only

All Manchester-based students on the dual PhD award programme with Tsinghua University are required to apply for the China Link Scholarship in order to finalise their accommodation and stipend arrangements for when they are in China. The processing time of these applications is approx. 6-8 weeks, so we strongly advise that those who commenced their programme in September submit their China Link Scholarship applications in the following January/February.

China Link Scholarship (CLS)

Appendix 3.3. University of Manchester and Indian Institute of Technology Kharagpur dual award specific guidance

Supervisors and advisors

A joint supervisory team will be established by up to of two academic staff autonomously, each from respective Institution, who share the same academic interests. The supervisory team will provide academic support throughout the whole training process.

Pastoral support is available at both Institutions. At Manchester, each Student has an 'advisor' who is part of the supervisory team but provides non-academic, pastoral support. At IIT Kharagpur pastoral support is provided via Chairperson DSC.

Formal Progression

Progression and assessment will be managed via an overarching board/committee, so that there is an agreed outcome for each Student. Day to day management of Students will rest with the Institution they are located at during the different stages of their Jointly Awarded Project (i.e. students will be managed by IIT Kharagpur when they are at IIT Kharagpur and by Manchester when they are in Manchester). There are no requirements for taught courses to be undertaken while at Manchester.

Progression will be monitored and managed jointly between the two Institutions. The Students will need to meet the requirements of both Institutions.

- Manchester – annual review in years 1, 2 and 3.

- IIT Kharagpur – Comprehensive Exam, Registration Seminar, Enhancement Seminar and Synopsis Seminar.

Program Duration and time allocated between Institutions

The program is four years long. The time will be allocated as follows:

Year 1: Spent at IITKGP.

Within one week of admission, Doctoral Committee assigns up to 10 credits of coursework for Masters degree holders and up to 20 credits for Bachelors degree holders. Of these,

(i) up to 3 credits for Masters and up to 6 credits for Bachelors degree holders may be U-Manchester courses taken online, including any mandatory course required by U-Manchester, and

(ii) depending on background and performance, the DSC may waive one course for Masters and two courses for Bachelors degree holders.

The online course taken at U-Manchester will serve as the required "interdisciplinary course" at IIT Kharagpur. For native English speakers, IIT Kharagpur will waive the English for Technical Writing course requirement. Coursework is completed within the first two semesters. Preliminary research activity under joint supervision is initiated in the first year itself. Comprehensive Exam is taken within the first 10 months.

If unsuccessful after two attempts in Comprehensive Exam, or if any course grade is D or lower, then candidate is asked to leave the program.

For successful candidates, preparation to spend the second and fourth years at UK (visa related paperwork, funding commitment etc.) is completed.

Milestone matching:

Comprehensive Exam at Kharagpur = First year/Continuation at Manchester

Year 2: Spent at Manchester.
Research work starts. Supervisor(s) at both ends continually monitor progress. Registration Seminar given in Manchester.
Milestone matching:
First annual review at Manchester = Registration seminar at Kharagpur

Year 3: Spent at Kharagpur/Manchester.
Research continues. Supervisor(s) at both ends continually monitor progress. Enhancement Seminar given in Kharagpur.
Milestone matching:
Enhancement seminar at Kharagpur=Second annual review at Manchester

Year 4: Spent at Manchester/Kharagpur.
Thesis work is completed. Synopsis seminar is given. Thesis is submitted to both Institutions and sent for examination as per each institution's rules:

a) IITKGP sends thesis to Indian and Foreign Examiners. Both examiners submit report. If accepted, defence seminar is conducted as per IITKGP rules in Manchester/Kharagpur depending on student's location. Otherwise attends by video conference.
b) Evaluation and closed-door defence are conducted at Manchester as per University of Manchester rules.

Milestone matching:
Third annual review at Manchester = Synopsis seminar at Kharagpur
Thesis defence at Manchester = Open defence at Kharagpur
Any changes to the time allocated between institutions will need to be authorised by both institutions.

Examination / Assessment / Award

To be eligible for a dual PhD award, students must have at least two original research publications in reputed journals that they have authored or co-authored. See below for details of eligible reputed journal publications:

(i) Two papers of original research work published or accepted in any SCI/Scopus/SSCI/SCIE/ ABDC journals/research monographs:
(ii) One paper of original research work published or accepted in any SCI/Scopus/SSCI/SCIE/ ABDC journals, and one peer reviewed paper on original research work published in the proceedings of a conference.
(iii) Two peer reviewed papers (not abstracts or posters) on original research work published in the proceedings of a recognised conference.
(iv) Awarded patents, technology transfers, trademarks may be considered to be equivalent to published papers.
(v) The paper(s) must be part of the thesis work done at the Institute.

Students who do not have two original publications can still submit their thesis to the University of Manchester to obtain a single PhD award from the University of Manchester only. They will be transferred from the dual award onto a single award programme to facilitate that.

All students will submit their thesis to the University of Manchester first, then undertake an oral examination defence (viva) at the University of Manchester. Once they have completed their revisions following the University of Manchester viva, they will submit the revised thesis to the University of Manchester and to IIT Kharagpur to continue with the examination process at IIT Kharagpur. The thesis submitted to IIT Kharagpur must be made only after the University of Manchester viva and after applying the revisions recommended at the viva. The appointed examination panel will be the same at both Institutions throughout the entire examination process and must meet the requirements of both Institutions in terms of numbers and eligibility of its members.

Students who successfully complete a dual PhD award at both Institutions, including completing both defences in their entirety, will graduate with a jointly awarded PhD dual degree from both Manchester and IIT Kharagpur, and will receive a degree certificate from each Institution which will clearly state that the degree was obtained through a dual PhD award. The degree titles must use the same wording on the certificate of both Institutions.

Both institutions must be credited on any papers.

Appendix 3.4. University of Manchester and Indian Institute of Science Bangalore dual award specific guidance

Supervisors and advisors

A joint supervisory team will be established by up to of two academic staff autonomously, each from respective Institution, who share the same academic interests. The supervisory team will provide academic support throughout the whole training process.

Pastoral support is available at both Institutions. At Manchester, each Student has an 'advisor' who is part of the supervisory team but provides non-academic, pastoral support. At IISc Bangalore pastoral support is provided by the institute and department' curriculum committee

Formal Progression

Progression and assessment will be managed via an overarching board/committee so that there is an agreed outcome for each Student. Day to day management of Students will rest with the Institution where they are located at during the different stages of their Jointly Awarded Project (i.e. students will be managed by IISc Bangalore when they are at IISc Bangalore and by Manchester when they are in Manchester).

Progression will be monitored and managed jointly between the two Institutions. The students will need to meet the requirements of both Institutions.

- Manchester - annual review in years 1, 2 and 3.
- IISc Bangalore - annual review in years 1, 2 and 3.

Examination / Assessment / Award

A single thesis shall be submitted by the Student in English within four years of the date of registration to their home institution. Students will be examined by their designated lead institution and according to their designated lead institution's process, with the partner institution verifying and ratifying the outcome as complying with the joint award agreement. Please, refer to IISc Bangalore's internal guidelines on the examination process for more detail on that.

At the University of Manchester each thesis needs to be reviewed by two public reviewers and one anonymous reviewer. The public reviewers can be experts from each Institution and at least one public reviewer will attend the defence. There is no requirement that all panel experts review and provide a report on the thesis.

For thesis review, we usually have four kinds of outcomes:

A. Reviewer has no comments and agree to organize defence;
B. Reviewer has some comments for revision but also agrees to organize defence;
C. Reviewer suggests certain revisions are required before the defence;
D. Reviewer rejects the thesis defence.

For A and B, students can conduct the defence after the thesis has been revised based on the reviewer comments.

For C, students need to revise the thesis based on comments and return to the same reviewer to be checked.

For D, students cannot organize their defence and need to rewrite their thesis.

Students who successfully complete a Jointly Awarded Project at both Institutions will graduate with a jointly awarded PhD degree from the designated lead institution which will clearly state that the degree was obtained through a Jointly Awarded Project. Both institutions must be credited on any papers.

Program Duration and time allocated between Institutions

The program is four years long. The time will be allocated as outlined in the Individual graduate Research Agreement. Any changes to the time allocated between institutions will need to be authorised by both institutions.

Appendix 3.5. University of Manchester and University of Tokyo dual award specific guidance

Supervisors and advisors

A joint supervisory team will be established by up to two academic staff autonomously, each from respective Institution, who share the same academic interests. The supervisory team will provide academic support throughout the whole training process.

Pastoral support is available at both Institutions. At the University of Manchester, each Student has an 'advisor' who is part of the supervisory team but provides non-academic, pastoral support. At the University of Tokyo, students can seek advice on general questions at the university from the Academic Affairs Team and/or the university-wide service such as the “General Consultation Unit” and “Peer Support Room”.

Formal Progression

Progression and assessment will be managed via an overarching board/committee so that there is an agreed outcome for each Student. Day to day management of Students will rest with the Institution where they are located at during the different stages of their Jointly Awarded Project. Progression will be monitored and managed jointly between the two Institutions. The students will need to meet the requirements of both Institutions.

• Manchester - annual review in years 1, 2 and 3.

Examination / Assessment / Award

The examination consists of two parts: the pre-final examination and the final examination. Both examinations are mandatory requirements for the award of the dual doctoral degree jointly conferred by The University of Tokyo and The University of Manchester. The Students are required to pass the pre-final examination before taking the final examination. The pre-final examination must be held at least two months prior to the final examination.

The purpose of the pre-final examination is to review the Student’s progress, identify any issues, and determine whether the Student is eligible to proceed to the final examination. The examination includes submission of thesis draft or abstract and an oral presentation delivered by the Students. The principal supervisors must approve the Student’s readiness to take and retake the pre-final examination. Detailed process of the pre-final examination will be outlined in each Student’s Individual Graduate Research Agreement (IGRA or study plan) in accordance with the rules and regulations of the specific department to which the Student belongs.

The decision of the pre-final examination panel must be approved by a higher panel: the Education Council of The University of Tokyo’s Graduate School of Engineering or the Education Review Committee of The University of Tokyo’s Graduate School of Engineering. Once this approval is granted, a Student may proceed to thesis submission.

The student will submit one identical thesis to a joint examination panel which will include panel members from Manchester and The University of Tokyo. The juries of the defence should include at

least 3 members from The University of Tokyo, 1 member from Manchester, and 1 member from an external institution.

Each thesis will be reviewed by two public reviewers and one anonymous reviewer. The public reviewers can be experts from each Institution and at least one public reviewer will attend the defence. There is no requirement that all panel experts review and provide report on the thesis.

For thesis review, possible outcomes are:

A. Pass without corrections.

B. Minor corrections: Student completes corrections and checks they have been completed with internal examiner (4-12 weeks from the date the PGR receives the list of corrections).

C. Major revisions: Student completes revisions and (in some cases additional research) and resubmits PhD thesis as required (6-12 months from the date the PGR receives the list of corrections) for re-examination. Student will either be awarded pass without corrections, pass with minor corrections, exit with MPhil or will fail.

D. Exit with MPhil (no corrections): student exits the Programme with MPhil awarded by Manchester only.

E. Exit with MPhil (minor corrections): student makes corrections, submits them to Manchester internal examiner for approval and exits the Programme with MPhil awarded by Manchester only.

F. Resubmit for MPhil: student completes major revisions and resubmits thesis for re-examination for MPhil awarded by Manchester only.

G. Fail: student exits the Programme without award.

Where the thesis defence panel agrees to award the Student a PhD dual award (outcomes A-C), The University of Manchester and The University of Tokyo will seek the ratification of this result by all relevant internal committees. Once this is complete, the Student will submit a final identical copy of their thesis to both institutions before obtaining a doctorate degree.

Students will receive separate award certification from each institution. Students are eligible to attend the graduation ceremonies for either or both institutions and will be contacted separately by each regarding details.

Both institutions must be credited on any papers.

<u>Program Duration and time allocated between Institutions</u>

The program is four years long. The time will be allocated as outlined in the Individual graduate Research Agreement. Any changes to the time allocated between institutions will need to be authorised by both institutions.

Liability Insurance

As part of your study at the University of Tokyo it is strongly advised that you take out the University of Tokyo's personal liability insurance at a nominal fee. This provides cover in the event of injuries or accidents sustained during research activities in Japan or overseas. Refer to this document for more details. You should check with your Graduate School Office to confirm the process of arranging that cover.

Appendix 3.6. University of Manchester and A*STAR split-site specific guidance

Supervisors and advisors

A joint supervisory team will be established by up to of two academic staff autonomously, each from respective Institution, who share the same academic interests. The supervisory team will provide academic support throughout the whole training process.

At Manchester, each Student has an 'advisor' who is part of the supervisory team but provides non-academic, pastoral support.

Formal Progression

Progression and assessment will be managed by University of Manchester. The students will need to meet the following requirements.

- Manchester – annual review in years 1, 2 and 3.

Program Duration and time allocated between Institutions

The program is four years long. The time will be allocated as follows:

Year 1: Spent at Manchester

Year 2: Spent at A*STAR

Year 3: Spent at A*STAR

Year 4: Spent at Manchester

Any changes to the time allocated between institutions will need to be authorised by both institutions.

Examination / Assessment / Award

Students will follow the University of Manchester examination process (see 10.2).

Students who successfully complete this Split-site PhD Award programme will graduate with a PhD degree from the University of Manchester. However, both institutions must be credited on any papers

Appendix 3.7. University of Manchester and Peking University dual award specific guidance

Supervisors and advisors

A joint supervisory team will be established by a minimum of two academic staff autonomously, each from respective Institution, who share the same academic interests. The supervisory team will provide academic support throughout the whole training process.

Pastoral support is available at both Institutions. At Manchester, each student has an 'advisor' who is part of the supervisory team, but provides non-academic, pastoral support. At Peking pastoral support is provided via Prof. Sihai Yang.

Formal Progression

Student progression will be monitored through the Manchester online progression system in line with standard 4-year PhD progression rules. Whenever the student is at the Peking site, monthly joint supervision meetings must have a standing item to discuss, record and complete the attendance and engagement requirements by the Manchester supervisor.

Formal progression will be monitored and managed jointly between both Institutions. A student needs to meet the requirements of both Institutions:

- Manchester - complete all compulsory training and students must complete and pass an annual progress review in Year 1, 2 and 3.
- Peking - attend the lecturers and training and pass the exams to earn enough module credits and pass the qualification exam during the study period in Peking. Specifically, Manchester recruits on arrival at Peking will have a minimum set of compulsory modules to take and earn 18 credits as given in Table 2.1, to be qualified for a Peking award. The Principal Supervisor should advise the students in selecting modules they study. Once a study plan is made, if a student fails to pass two required compulsory or elected modules after retaking them or fails more than three modules in one semester, he/she shall be withdrawn from the Jointly Awarded Project.

Credit-bearing modules for dual PhD students are:

Chemistry

(a) Compulsory public modules (4 credits) - 公共必修（4 学分）

No 序号	Module no 课程号	Module name-课程名称	C/E 课程类别	Credit 学分	Hours 总学时
1	61410008	中国概况 Lecture Series on Contemporary China	C-必修	2	32
2	04411002	基础汉语 Chinese Language for international students	E-必修	2	64
3	04411003	基础汉语（初级） Elementary Chinese 1	E-必修	2	64
4	04411004	基础汉语（中级） Elementary Chinese 2	E-必修	2	64
5	04411005	基础汉语（高级） Elementary Chinese 3	E-必修	2	64

Note: A student needs to select module 1 and either of module 2-5 in this part of table according to their Chinese skills.

(b) Academic Writing (2 Credits) - 论文写作（2 学分）

No 序号	Module no 课程号	Module name-课程名称	C/E 课程类	Credit 学分	Hours 总学时
1	08611490	英文科技论文写作 How to Write a Research Paper	C- 必修	2	36

(c) Compulsory Speciality Module (3 Credits) - 专业必修（3 学分）

No 序号	Module no 课程号	Module name-课程名称	C/E 课程类别	Credit 学分	Hours 总学时
1	-	品判性思维（英文班） Critical Thinking	C-必修	2	32
2	01014040	兴大学术报告 XingDa Academic Seminar	C-必修	1	16

(d) Specialised Academic Modules (9 Credits) - 专业选修（9 学分）

No 序号	Module no 课程号	Module name-课程名称	C/E 课程类	Credit 学分	Hours 总学时
1	01002865	F 区元素化学 F - element chemistry	E-选修	2	32
2	01002904	高等物理化学 Advanced Physical Chemistry	E-选修	3	48
3	01004011	化学反应动力学及机理 Chemical Kinetics and Dynamics	E-选修	3	48
4	01014270	高等电化学 Advanced Electrochemistry	E-选修	2	32
5	-	高分子概念 Polymer Concepts	E-选修	2	32
6	-	核能材料 Materials of Nuclear Energy	E-选修	2	32
7	-	现代理论与计算化学简介 Modern Theoretical and	E-选修	2	32
8	-	密度泛函理论 Density Functional Theory	E-选修	2	32

Environmental Science and Engineering

TBC

Note: A Manchester student needs to take at least one 3 credits module from this part of the table and obtain a letter from Manchester to certify that they have taken the mandatory training from the list Mandatory training - Science and Engineering Doctoral Academy - The University of Manchester and the following Chemistry training courses which can be transferred to be equivalent to 6 credits modules by Peking:

- Laboratory Safety and Operational Protocols (3 credits)
- FSE Research Integrity Training (1 credit)
- Data Protection and Cyber Security (2 credits)

Students will undergo a training needs analysis by the principal supervisors on an annual basis to identify any additional training/development needs.

Day-to-day management of students will rest with the Institution they are located at during the different stages of their Jointly Awarded Project (i.e. students will be managed by Peking when they are at Peking and by Manchester when they are in Manchester). Students are required to complete the training programs specified by each Institution during their respective periods at both Institutions.

Examination / Assessment / Award

A single thesis written in English must meet the requirements of both Institutions' policies on thesis presentation.

Students will follow each Institution's exam rules and undergo two parts of a dual PhD examination in the sequence described below:

- Manchester - the thesis is submitted for review and oral examination (viva voce) as part (a) of a dual PhD examination. Thie examination panel consists of 1x Internal Examiner (internal to Manchester), 1x External Examiner (this examiner should be external to all collaborating institutions). For thesis review, we usually have four kinds of outcomes:
    - Reviewer has no comments and agree to organize defence;
    - Reviewer has some comments for revision but also agrees to organize defence;
    - Reviewer suggests certain revisions are required before the defence;
    - Reviewer rejects the thesis defence.

    For A and B, students can conduct the defence after the thesis has been revised based on the reviewer comments.

    For C, students need to revise the thesis based on comments and return to the same reviewer to be checked.

    For D, students cannot organize their defence and need to rewrite their thesis.

- Peking (part b) - A student must complete the feasibility assessment of doctoral subject organised by the Chemistry academic committee before the end of Year 3. A student also needs to attend and successfully pass a pre-viva oral examination organised by a joint panel which consists of at least two Principal Supervisors no later than the start of Year 4. There are

two academic degree committee meetings in Chemistry each year, i.e. Winter around February and Summer around June, to allow recommendations to Ministry of Education (MoE) for degree award, and therefore final thesis defence needs to be organised accordingly. The thesis will be submitted through Peking doctoral exam procedure as part (b) of a dual PhD examination. The final doctoral examination procedure consists of multiple anonymous expert reviews of the thesis, based on the assessment result of these reviews a resubmission or a final thesis defence to an examination panel will be organised. If the thesis fails the assessment of the anonymous expert review, the student will be withdrawn from the Joint Awarded Project.

In the case of major corrections and resubmission outcome in part (a) or (b), close liaison between the joint supervisory team including the advisor at Manchester and the student office/international student office in Peking need to provide detailed guideline and support to the student in terms of extension, delay in examination and graduation. Peking allows 4 years registration for the research period and up to 2 more years of extension. Manchester allows an additional 6-12 months after the examination process for major revisions.

In accordance with the respective degree conferral requirements and procedures of both Institutions (specifically for Peking, upon the deliberation and decision of the Degree Committee and the University Degree Conferral Committee, based on the evaluation results provided by the defence committee), successfully passing both parts of the examination will result in an award of the Dual Award PhD degree from Manchester and Peking. In the event that a student fails at any stage of this examination procedure, either part (a) or (b), they can submit a withdrawal note from the Jointly Awarded Project and will be awarded with a single degree depending on which part of the examination they have passed.

Both Institutions must be credited on any conference or journal papers produced by students of Jointly Awarded Project.

Students are eligible to attend both graduation ceremonies and alumni of both Institutions.

Program Duration and time allocated between Institutions

The program is four years long. Each student participating in the programme will spend two years at each institution, with specific arrangements subject to the Individual Graduate Research Agreement. Any changes to the time allocated between institutions will need to be authorised by both institutions, but it is agreed that the entire process, including thesis examination, will be completed within a maximum of five (5) years.

Manchester-based students only

All Manchester-based students on the dual PhD award programme with Peking University are required to apply for the Chinese Link Scholarship in order to finalise their accommodation and stipend arrangements for when they are in China. The processing time of these applications is approx. 6-8 weeks, so we strongly advise that those who commenced their programme in September submit their China Link Scholarship applications in the following January/February.

China Link Scholarship (CLS)

Appendix 3.8. University of Manchester and University of Chile dual award specific guidance

Further details regarding The University of Chile will be updated in due course.