UNIVERSITY OF YORK

GRADUATE PROGRAMME SPECIFICATION

This document applies to students who commence the programme(s) in:	2018-19
Awarding institution	**Teaching institution**
	University of York
Department(s)	**Board of Studies**
Award(s) and programme title(s)	**Level of qualification**
Pre-Masters Science, Engineering (Mathematics Pathway) Pre-Masters Science, Engineering (Management Pathway)	Level 6 (Honours)

Admissions criteria
The programme is designed for students who have not met the entry requirements for direct entry to the University of York. Students entering the programme with an IELTS of at least 5.5 (minimum 5.5 in all skills) will undertake the Pre Masters Science, Engineering programme over two terms. This includes some taught English language during the programme.

Length and status of the programme(s) and mode(s) of study

Programme	Length (years) and status (full-time/part-time)	Start dates/months (if applicable – for programmes that have multiple intakes or start dates that differ from the usual academic year)	Mode		
			Face-to-face, campus-based	**Distance learning**	**Other**
Pre-Masters Science, Engineering	2 terms, full-time	September, January	Yes	No	N/A

Language of study	English

Programme accreditation by Professional, Statutory or Regulatory Bodies (if applicable)

Educational aims of the programme(s)
The programme aims to equip international students with a range of subject-related understanding, knowledge and skills and advanced level English language capabilities and higher level study skills, in order that they become

independent, self-directed learners and achieve the necessary academic standards to progress to Masters study at the University of York.

Intended learning outcomes for the programme – and how the programme enables students to achieve and demonstrate the intended learning outcomes	
This programme provides opportunities for students to develop and demonstrate knowledge and understanding qualities, skills and other attributes in the following areas:	*The following teaching, learning and assessment methods enable students to achieve and to demonstrate the programme learning outcomes:*
A: Knowledge and understanding	
All students will be able to: 1. Demonstrate understanding of scientific paradigms and discuss examples of paradigm shifts. 2. Demonstrate understanding of ethical issues and procedures in science and engineering. 3. Understand the principles of experimental design, and critically evaluate their application in research. 4. Understand the use of statistical methods and their applicability in various contexts. 5. Understanding of the uses of MS Excel in science and engineering research, and basic competence in its application Mathematics pathway students will be able to: 6. Describe and understand the connection between different types of integrals (e.g. line, surface, double and triple integrals) 7. Understand complex numbers, complex functions, residues and techniques for calculating various integrals which may not be calculated otherwise Management pathway students will be able to: 8. Define management and identify current management models and the contexts in which they are practised; 9. Understand how resources are shared/allocated across the different functions;	Learning/teaching methods and strategies (relating to numbered outcomes): ▪ Lectures - all learning outcomes ▪ Seminars - all learning outcomes ▪ Small group tutorials - to support all learning outcomes (delivered by Academic Advisors) Types/methods of assessment (relating to numbered outcomes): ▪ Essay - 1, 2 ▪ Written Examination - 4, 5, 6, 7, 8, 9 ▪ Case Study - 1, 2 ▪ Group Report - 8, 9 ▪ Report - 3 ▪ Poster Presentation – 3
B: (i) Skills – discipline related	
All students will be able to: 1. Compare approaches to science before and after the enlightenment. 2. Explain and appraise examples of contemporary scientific controversies and successes.	Learning/teaching methods and strategies (relating to numbered outcomes): ▪ Lectures - all learning outcomes ▪ Seminars - all learning outcomes

3. Engage critically with original research reports, using standard statistical tools to assess the quality of research 4. Assess the relevance of research reports to their field of study. 5. Select and apply sampling techniques appropriate to the nature and scale of research being undertaken. 6. Select appropriate graphs and tables to present and manipulate research data. 7. Select and apply statistical tests appropriate to the research being taken. 8. Recognise and appraise the issues involved in designing a research project.	▪ Small group tutorials - to support all learning outcomes (delivered by Academic Advisors)
Mathematics pathway students will be able to: 9. Recognize and understand why the use of polar and spherical coordinates is important in describing basic curves and surfaces 10. Use mathematical tools to calculate areas and volumes of various objects in a plane and in space. 11. Describe and understand the connection between different types of integrals (eg line, surface, double and triple integrals) 12. Test the convergence of series and understand their use in approximating various functions. 13. Understand complex numbers, complex functions, residues and techniques for calculating various integrals which may noit be calculated otherwise. **Management pathway students will be able to:** 14. Discuss the role, theories and functions of management; 15. Identify the function of management that is appropriate to their skills, backgrounds and future career aspirations.	Types/methods of assessment (relating to numbered outcomes): ▪ Essay - 1, 2, 14, 15 ▪ Written Examination - 9, 10,11,12,13 ▪ Group Report - 14, 15 ▪ Report - 3, 4, 5, 6, 7, 8 ▪ Poster Presentation - 3, 4, 5, 6, 7, 8
B: (ii) Skills - transferable	

All students will be able to:
 	
1. Apply skills of
  a) critical evaluation, analysis and the development of argument
  b) creative problem-solving by the application of knowledge gained to factual problems
2. Apply research skills, including
  a) selecting and using appropriate sampling techniques and appropriate techniques for collecting data
  b) gathering, logging and crediting sources of information
  c) analysing data
	Learning/teaching methods and strategies (relating to numbered outcomes):
	
	▪ Lectures - all learning outcomes
	▪ Seminars - all learning outcomes
	▪ Small group tutorials - to support all learning outcomes (delivered by Academic Advisors)
	▪
	
	Types/methods of assessment (relating to numbered outcomes):

d) analysis and evaluation of primary and secondary sources and academic literature.
3. Retrieve paper-based and electronic information from a variety of sources.
4. Plan and implement a research project.
5. Make effective use of IT facilities.
6. Manage resources and time.
7. Work and learn independently.
8. Work as a member of a team.
9. Communicate clearly and concisely both orally and in writing.
10. Give and receive peer feedback.
11. Prepare essays, reports and posters
12. Give oral presentations.
13. Operate the English language skills of;
   a) reading for information, attitude and evaluation
   b) listening with confidence to a wide range of dialogue and monologue
   c) understanding and controlling the writing process applicable to a variety of academic writing texts and situations
   d) speaking accurately, coherently and appropriately on a variety of complex topics
	Group discussion 1, 5, 6, 7, 8, 9, 13a, 13b, 13d
	Short essay 1, 5, 6, 7, 9,10, 11, 13a, 13c
	Presentation 1, 3, 5, 6, 7, 9, 12, 13a, 13d
	Poster 1, 3, 5, 6, 7, 9, 10, 11, 13a, 13c
	Long essay(s) 1, 3, 5, 6, 7, 9, 11, 13a, 13c
	Project report 1, 2, 3, 4,5, 6, 7,8 ,9,11, 13a, 13c

C: Experience and other attributes
All learning outcomes included in sections A and B above

Relevant Quality Assurance Agency benchmark statement(s) and other relevant external reference points (e.g. National Occupational Standards, or the requirements of Professional, Statutory or Regulatory Bodies)

University award regulations
To be eligible for an award of the University of York a student must undertake an approved programme of study, obtain a specified number of credits (at a specified level(s)), and meet any other requirements of the award as specified in the award requirements and programme regulations, and other University regulations (e.g. payment of fees). Credit will be awarded upon passing a module's assessment(s) but some credit may be awarded where failure has been compensated by achievement in other modules. The University's award and assessment regulations specify the University's marking scheme, and rules governing progression (including rules for compensation), reassessment and award requirements. The award and assessment regulations apply to all programmes: any exceptions that relate to this programme are approved by University Teaching Committee and are recorded at the end of this document.

Departmental policies on assessment and feedback
Refer to the Guide to English language and study skills pass marks within the IPC.
Information on formative and summative feedback to students on their work is available in the written statement on feedback to students which applies to this programmes and the relevant module descriptions. These are available in the student handbook and on the Department's website:

There are a number of ways in which students who are performing poorly will be identified and supported. Students will be streamed according to IELTS scores at point of entry. Students identified as having weaknesses to overcome will be given an individual learning plan including additional support, as required and appropriate.

Diagrammatic representation of the programme structure, showing the distribution and credit value of core and option modules

2 Term Pre-Masters - Mathematics Pathway:

Term 1	Term 2
Engineering, Science & Society (10 credits)	Research Project – Science and Engineering (10 credits)
Statistics for Post-graduates (10 credits)	Mathematics for Post-graduates (10 credits)
Skills for Study 1 (10 credits)	Skills for Study 3 (10 credits)
Skills for Study 2 (10 credits)	Language for Study 3 (10 credits)

2 Term Pre-Masters - Management Pathway:

Term 1	Term 2
Engineering, Science & Society (10 credits)	Research Project – Science and Engineering (10 credits)
Statistics for Post-graduates (10 credits)	Introduction to Management (10 credits)
Skills for Study 1 (10 credits)	Skills for Study 3 (10 credits)
Skills for Study 2 (10 credits)	Language for Study 3 (10 credits)

Diagrammatic representation of the timing of module assessments and reassessments, and the timing of departmental examination/progression boards

Notes:
- IPC terms are not exactly aligned with standard UoY terms: there are three 11-week terms.
- Assessments are run inside the IPC, and take place outside the CAP
- Given the multiple start dates, reassessment may be possible earlier than the stated reassessment period: students are permitted to resit at the next available offering of the exam.

2 Term September start

Autumn term	Spring term	Summer term	Summer vacation	Date of final award board
Mid-module assts will be spread through the term (T1)	Mid-module assts will be spread through the term (T2)			
Wk 12: end-module assts (T1), mid-module assts (T1+T2)	Wk 27 and 29: end-module assts (T2), end-module assts (T1+T2)			
Wk 31: exam board	Wk 31: Exam board			Spring week 36
	Wk 32-33: Reassessments			

2 Term January start

Autumn term	Spring term	Summer term	Summer vacation	Date of final award board
	Mid-module assts will be spread through the term (T1)	Mid-module assts will be spread through the term (T2)		
	Wk 27: end-module assts (T1), mid-module assts (T1+T2)	Wk 40 + 42: end-module assts (T2), end-module assts (T1+T2)		
	Wk 45: exam board	Wk 45: exam board		Week 49
		Wk 46-47: Reassessments		

Overview of modules

Core module table

Module title	Module code	Credit level [1]	Credit value [2]	Prerequisites	Assessment rules [3]	Timing and format of main assessment
Skills for Study 1		Level 6 (H)	10		Pass / Fail Pass mark set at 55% (CEFR B2 lower)	End of module – Group Discussion
Skills for Study 2		Level 6 (H)	10		Pass / Fail Pass mark set at 55% (CEFR B2 lower)	End of module – Open book exam
Skills for Study 3		Level 6 (H)	10		Pass/Fail; Pass mark set at 60% (CEFR B2 upper)	End of Module – Essay

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[1] The **credit level** is an indication of the module's relative intellectual demand, complexity and depth of learning and of learner autonomy. Most modules in graduate programmes will be at Level 6/Honours. Graduate programmes may exceptionally include a maximum of 20 credits-worth of level 7(M) modules. The use of level 7 (M) credit must be approved by University Teaching Committee and recorded by departments and the University.

[2] The **credit value** gives the notional workload for the module, where 1 credit corresponds to a notional workload of 10 hours (including contact hours, private study and assessment)

[3] **Special assessment rules** (requiring University Teaching Committee approval)

P/F – the module is marked on a pass/fail basis (NB pass/fail modules cannot be compensated)

NC – the module cannot be compensated

NR – there is no reassessment opportunity for this module. It must be passed at the first attempt.

Note that marks for 'pass-fail' modules are informal indicators of ability only and will not be used in the calculation of award / progression requirements or published on transcripts.

		CEFR B2			Pass mark set at 60% with 55% in all components; (CEFR B2)	
Engineering, Science and Society		Level 6 (H)	10			Mid Module – critique End of module – project proposal Essay
Mathematics for Post-graduates		Level 6 (H)	10			Mid module – tests; End of Module – exam
Introduction to Management		Level 6 (H)	10			Mid module – group report; End of module - exam
Statistics for Post-Graduates		Level 6 (H)	10			Mid module – class test, MS Excel test; End of module - exam
Research Project – Science & Engineering		Level 6 (H)	10			End of module - Report

Transfers out of or into the programme	
N/A	
Exceptions to University Award Regulations approved by University Teaching Committee	
Exception	**Date approved**
None	N/A
Quality and Standards	

The University has a framework in place to ensure that the standards of its programmes are maintained, and the quality of the learning experience is enhanced.

Quality assurance and enhancement processes include:

- The academic oversight of programmes within departments by a Board of Studies, which includes student representation
- The oversight of programmes by external examiners, who ensure that standards at the University of York are comparable with those elsewhere in the sector
- Annual monitoring and periodic review of programmes
- The acquisition of feedback from students by departments.

More information can be obtained from the Academic Support Office:
http://www.york.ac.uk/about/departments/support-and-admin/academic-support/

Date on which this programme information was updated:	12 October 2018 (Previous update: 28 October 2016)

Departmental web page: **www.york.ac.uk/about/departments/academic/ipc/**	
Please note The information above provides a concise summary of the main features of the programme and learning outcomes that a typical students might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the leaning opportunities that are provided. Detailed information on learning outcomes, content, delivery and assessment of modules can be found in module descriptions. The University reserves the right to modify this overview in unforeseen circumstances, or where processes of academic development, based on feedback from staff, students, external examiners or professional bodies, requires a change to be made. Students will be notified of any substantive changes at the first available opportunity.	