1. Admissions/ Ma	nagement	Information					
Title of the new program	mme – includi	ing any year abroad/ in industry va	ariants				
See guidance on prograr	mme titles in <i>i</i>	Appendix V:					
https://www.york.ac.uk	/media/staffh	ome/learningandteaching/docume	ents/policies/Framewor	k%20for%20Programme	%20Design%20-%20UG.pdf		
Foundation Certificate	Physics, Ma	athematics, Computing, and Elec	ctronic Engineering				
Level of qualification							
Please select:			Level 3				
					Year in Industry	No	
Please indicate if the i	programme	is offered with any year abroad	/ in industry variant	s	Please select Y/N		
		,,,	,,,		Year Abroad Please select Y/N	No	
This document applies	s to students	s who commenced the program	ıme(s) in:	September 201			
Awarding institution				Teaching institution			
University of York				University of York			
Department(s):				Board of Studies			
Where more than one	department	t is involved, indicate the lead de	epartment				
Lead Department	International	Pathway College					
Other contributing							
Departments:				International Pathway College			
Interim awards availa	ble Interim	awards available on undergradu	ate programmes (sub	ject to programme rea	gulations) will normally be: Certif	icate of Higher Education	
specify any proposed e	exceptions to	o this norm.	ediate), Ordinary Degi	ree and in the case of i	integrated masters the Bachelors	with hohours. Please	
n/a							
UCAS code				Route code			
				(existing programmes	s only)		
n/a							
				1			

Admissions criteria

Applicants must have completed the equivalent of 12 years of school education. The minimum English language entry requirement will be IELTS 5.0 (with no individual skill less than 4.0) for the three term (Academic Skills) programme and 5.5 (with no individual skill less than 4.5) for the two term programme.

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

Programme	Length (years)	Status (full- time/part-	Start dates/months (if applicable – for programmes	Mode				
		time) Please select	that have multiple intakes or start dates that differ from the usual academic year)	Face-to-face, campus-based		Distance learning		Other
Foundation Certificate I	Phy	Full-time	September to April (September intake); January to July (January intake)	Please select Y/N	Yes	Please select Y/N	No	
Foundation Certificate Phy Full-time September to July		September to July	Please select Y/N	Yes	Please select Y/N	No		
Language(s) of study						•		
English								
Language(s) of assessm	nent							
English	English							
2. Programme accreditation by Professional, Statutory or Regulatory Bodies (PSRB)								
2.a. Is the programme recognised or accredited by a PSRB								
Please Select Y/N: N	Please Select Y/N: No if No move to section 3 if Yes complete the following questions							
2.b. Name of PSRB								

2.c. Please provide details of any approval / accreditation event needed, including: timescales, the nature of the event, central support / information required:

(max 200 words)

2.d. Does/ will approval or recognition require exceptions to University rules/practices? Please select Y/N		if Yes, provide details
(max 200 words)		
2.e. Any additional information (e.g. student attainment required to achieve accreditation) that are	e required by	the PSRB should be recorded here
(max 200 words)		
3. Additional Professional or Vocational Standards		
Are there any additional requirements of accrediting bodies or PSRB or pre-requisite professional e	xperience ne	eded to study this programme?
Please Select Y/N: No if Yes, provide details		
(max 200 words)		
4. Programme leadership and programme team		
4.a. Please name the programme leader for the year to which the programme design applies and	any key me	mbers of staff responsible for designing, maintaining and
overseeing the programme.		
Dan Eleveration (DL) and Matthew Danny (IDC Disaster)		
Ben Flowerdew (PL) and Matthew Perry (IPC Director)	luad in the d	orige of the programme and in encoding reflection on its
effectiveness?	ived in the d	esign of the programme and in ongoing reflection on its
The module proposals have been sent out to departments with existing progression agreements with and Student Support Group, consisting of representatives from UoY and Kaplan. Feedback from the I	the IPC. The Kaplan marke	e proposal has also been considered by the IPC Marketing ting team in particular has been encouraging.
5. Purpose and learning outcomes of the programme		

5.a. Stat	tement of purpose for applicants to the programme
Please e	xpress succinctly the overall aims of the programme as an <u>applicant facing statement</u> for a prospectus or website. This should clarify to a prospective student why
they sho	ould choose this programme, what it will provide to them and what benefits they will gain from completing it.
The proc	gramme will equin you with a range of subject-related understanding, knowledge and skills and an appropriate level of English language competency and higher level
study sk	sills, so as to achieve the necessary academic standards to progress to undergraduate study in Science, Maths, Computing, and Engineering programmes at the
Universi	ty of York. The programme will also help you become a more independent, self-directed learner.
5 h Prog	rramme Learning Outcomes
Please n	provide six to eight statements of what a graduate of the programme can be expected to do
Taken to	provide six to eight statements of what a graduate of the programme. They should also be outcomes for which progressive achievement through the
course o	of the programme can be articulated, and which will therefore be reflected in the design of the whole programme.
PLO	On successful completion of the programme, graduates will be able to:
1	Know and apply underpinning physical concepts, methods and theories in preparation for later study.
2	Use mathematics to solve problems and communicate effectively in the language of mathematics.
3	Carry out laboratory and computer based experiments safely and achieve meaningful results within well defined parameters.
4	Interpret and analyse experimental scientific data in order to draw conclusions.
5	Communicate clearly and effectively in the English language in both written and oral forms while demonstrating an understanding of academic conventions.
6	Demonstrate effective study skills, working constructively and effectively as self-directed learners and as members of a group, utilising information technology where
	appropriate.
7	Demonstrate an ability to solve well-defined problems, using Computer Science and Electronic Engineering principles to design and document solutions.
8	
5.c. Prog	gramme Learning Outcome for year in industry (where applicable)
For prog	grammes which lead to the title "with a Year in Industry" – typically involving an additional year – please provide either a) amended versions of some (at least one,
if it is an	necessarily and or the standard PLOs listed above, snowing now these are changed and enhanced by the additional year in industry b) an additional PLO, if and only
ii it is no	t possible to capture a key ability developed by the year in industry by alteration of the standard PLOS. (See also section 10)

n/a

5.d. Programme Learning Outcome for year abroad programmes (where applicable)

For programmes which lead to the title 'with a Year Abroad' – typically involving an additional year – please provide either a) amended versions of some (at least one, but not necessarily all) of the standard PLOs listed above, showing how these are changed and enhanced by the additional year abroad or b) an additional PLO, if and only if it is not possible to capture a key ability developed by the year abroad by alteration of the standard PLOs. (See also section 11)

n/a

5.e. Explanation of the choice of Programme Learning Outcomes

Please explain your rationale for choosing these PLOs in a statement that can be used for students (such as in a student handbook). Please include brief reference to:

i) Why the PLOs are considered ambitious or stretching?

The PLOs are quite typical of programmes of this type. They aim to develop subject knowledge and understanding, subject-related skills and also more general transferable skills.

ii) The ways in which these outcomes are distinctive or particularly advantageous to the student:

The PLOs are particularly advantageous to the student as they enable the development of not only subject knowledge and understanding in different academic disciplines but also the development of a range of skills, including English language skills.

iii) How the programme learning outcomes develop students' digital literacy and use technology-enhanced learning to achieve the discipline and pedagogic goals which support active student learning through peer/tutor interaction, collaboration and formative (self) assessment opportunities (reference could be made to such as blogging, flipped classrooms, response 'clickers' in lectures, simulations, etc).

Almost all the modules on the programme will make use of various aspects of technology-enhanced learning via the VLE, collaboration using Google documents, Qualtrics, etc. The Robotics unit will make extensive use of Lego Mindstorms robots and PIC processors as a means to deliver teaching of computing and electronics.

iv) How the PLOs support and enhance the students' employability (for example, opportunities for students to apply their learning in a real world setting)? The programme's employability objectives should be informed by the University's Employability Strategy:

http://www.york.ac.uk/about/departments/support-and-admin/careers/staff/

This is not really applicable to this programme. However, the PLOs enable the development of not only subject knowledge and understanding in different academic disciplines but also the development of a range of skills, including English language skills.

v) Consultation with Careers

The programme proposal should be discussed with Careers. Please contact your Faculty Employability Manager. Please provide details of Careers' comments and your response.

n/a

vi) How will students who need additional support for academic and transferable skills be identified and supported by the Department?

Students will be streamed based on ability in English and Maths. In terms of English language ability, this will be based on entry IELTS scores and for Maths it will be informed by a baseline test.

vii) How is teaching informed and led by research in the department/ centre/ University?

The IPC is a teaching-only department of the university. However, teaching is informed by recent advances in research in subject modules (e.g. by using journal articles) and also by advances in pedagogy.

5.f. Stage-level progression

Please complete the table below, to summarise students' progressive development towards the achievement of PLOs, in terms of the characteristics that you expect students to demonstrate at the end of each year. This summary may be particularly helpful to students and the programme team where there is a high proportion of option modules.

Note: it is not expected that a position statement is written for each PLO, but this can be done if preferred (please add information in the 'individual statement' boxes). For a statement that applies across all PLOs in the stage fill in the 'Global statement' box.

Stage 0 (if your program	tage 0 (if your programme has a Foundation year, use the toggles to the left to show the hidden rows)							
On progression from the first year (Stage 0), students will be able to:								
				Global statement				
PLO 1	PLO 2	PLO 3	PLO	4	PLO 5	PLO 6	PLO 7	PLO 8

Individual statements							
Stage 1							
On progression from t	he first year (Stage 1), stu	udents will be able to:					
			This is not applic	able to this programm	e (which runs over onl	v one vear).	
PLO 1	PLO 2	PLO 3	PLO 4	PLO 5	PLO 6	PLO 7	PLO 8
Individual							
statements							
Stage 2							
On progression from t	he second year (Stage 2),	students will be able to:	:				
			This is not applic	able to this programm	e (which runs over onl	v one vear)	
PLO 1	PLO 2	PLO 3	PLO 4				PLO 8
Individual							
statements							
Stage 3							
(For Integrated Master	rs) On progression from t	he third year (Stage 3),					
students will be able to):				,	,	
	DLO 2		I his is not applic	able to this programm	e (wnich runs over oni	y one year).	
PLO I	PLO 2	PLO 3		PLO 5	PLO 6	PLO 7	PLO 8
statements							

5.g. Other features of	the programm	ie de la constant de						
i) Distance Learning Does the programme i	nvolve distance	e learning:						
Please Select Y/N:	Please Select Y/N: No if Yes, you are required to submit to Teaching Committee: Checklist for Distance Learning Programmes							
ii) Involvement of parti Are any partner organ	i) Involvement of partner organisations Are any partner organisations involved in the delivery of the programme?							
Please Select Y/N:	No if Yes, outline the nature of their involvement (such as contributions to teaching, placement provision). Where appropriate, see also the: University guidance on collaborative provision							
(max 200 words)								
iii) Internationalisation How does the program	/ globalisation nme promote ir	nternationalisation and encourage students to develop cross-cultural capabilities?						
This programme is for from different countri- such capabilities.	or international es and the fac	students only and aims to increase the number of students coming to York from overseas countries. The fact that the student body comes t that many topics discussed on the programme require an international perspective and cross-cultural analysis will help students develop						
iv) Inclusivity How will good practice This refers to the prote	iv) Inclusivity How will good practice in ensuring equality, diversity and inclusion be embedded in the design, content and delivery of the programme?							
The programme is marketed across the world and therefore attracts students from a wide range of backgrounds. All of these students will be mixed into the same classes and tutors will be encouraged to get students to mix with others from different backgrounds.								
r) Summer term weeks 8-10 Please summarise the activities that students will be expected to undertake during Weeks 8-10 of the Summer Term in each stage of the programme.								
n/a								
6. Reference poin	ts and prog	ramme regulations						

6.a. Relevant Quality Assurance Agency benchmark statement(s) and other relevant external reference points
Please state relevant reference points consulted (e.g. Framework for Higher Education Qualifications, National Occupational Standards, Subject Benchmark Statements or
the requirements of PSRBS): See Undergraduate Modular Scheme: Framework for Programme Design:
https://www.york.ac.uk/media/staffhome/learningandteaching/documents/policies/Framework%20for%20Programme%20Design%20-%20UG.pdf
http://www.qaa.ac.uk/assuring-standards-and-quality/the-quality-code/subject-benchmark-statements
http://www.qaa.ac.uk/publications/information-and-guidance/publication?PubID=2843#.VthM1fmLS70
Language and Study Skille medules are manned to the Common European Framework of Peference (CEEP)
6.b. University award regulations
The University's 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.
6.c. Are students on the programme permitted to take elective modules?
(See: https://www.york.ac.uk/media/staffhome/learningandteaching/documents/policies/Framework%20for%20Programme%20Design%20-%20UG.pdf)
Please Select Y/N: No
7. Programme Structure
7.a. Module Structure and Summative Assessment Map (presented on a separate tab)
7.c. Explanation of the programme and assessment design
The statements should be in a form that can be used for students (such as in a student handbook). It should make clear to students why they are doing the key activities of
the programme, in terms of reaching the PLOs.
i) Contact with staff
Please explain how the programme's design maximises the value of students' contact time with staff (which may be face-to-face, virtual, synchronous or asynchronous), including through the
use of technology-enhanced learning. For example, giving students resources for their independent study which then enables a class to be more interactive with a greater impact on learning.
There is a large number of contact hours each term (20 or more). These will be largely delivered in small group sessions (max 18) to maximise individual attention that student receives from a tutor. In addition, the students' independent study is guided through numerous resources that are available on the VLE.
ii) Students' independent study and formative work
Please outline key features of how independent study and formative work has been designed to support the progressive achievement of the programme learning outcomes. (For example, the use of online resources, which may also incorporate formative feedback; opportunities for further learning from work-based placements).

In most modules tutors provide students with weekly homework tasks that are informally marked by the tutor. The students' independent study is also guided by the numerous resources that are available on the VLE. In addition, each and every module has formative assessment to ensure that students receive feedback to enable them to improve their performance in the summative assessments.

iii) Summative Assessment

Please outline how summative assessment within and across modules has been designed to support and evidence the progressive achievement of the programme learning outcomes. (For example, the use of different assessment methods at the 'introduction' stage compared to those used to evaluate deeper learning through the application of skills and knowledge later in the programme).

The programme has only one stage. Summative assessment has been designed to be as varied as possible to ensure that all PLOs and MLOS are assessed. In the case of the 3-term programme, the modules and assessment in Term 1 ensure that the students acquire the necessary skills (English language skills, and mathematical skills) to do well in Terms 2 and 3 of the programme.

8. Contribution of staff

8.a. Please outline (where applicable) the contribution of Postgraduate who Teach (PGWTs) to the programme.

The programme must comply with the University Policy on PGWTs (http://www.york.ac.uk/admin/hr/managers/casual_workers/pgwt/#tab1) and PGWTs must be involved in the monitoring and review of the programme.

n/a

8.b. If casual teaching staff and/ or staff external to the University will be involved in delivery of the programme, please outline how they will contribute and how the programme team will ensure that individuals are adequately supported and monitored.

A distinction should be drawn between those staff for whom the University can accept responsibility as internal examiners (i.e. continuing employees) and those for whom it cannot (i.e. casual teaching staff, persons not employed by the University). Those in the latter category may be involved in assessing and in advising an internal examiner on the mark to be awarded; in every such case, however, the internal examiners will be required to 'second mark' the work concerned and be formally responsible for the marks awarded(Guide to Assessment, Standards, Marking and Feedback sec. 17).

n/a

9. Study Abroad (including Year Abroad as an additional year and replacement year)

Students on all programme programme is on a compet	Students on all programmes may apply to spend Stage 2 on the University-wide North America/ Asia/ Australia student exchange programme. Acceptance onto the programme is on a competitive basis. Marks from modules taken on replacement years count toward progression and classification.						
Does the programme inclu Abroad	de the opportunity t	o undertake other	formally agreed study abroad activities? All such programmes must comply with the Policy on Study				
https://www.york.ac.uk/st	aff/teaching/proced	ure/programmes/c	design/				
Please Select Y/N: No	if No move t if Yes comple	No move to section 10 Yes complete the following questions					
9.a.Will the department no	eed to agree new/ a	dditional study ab	road partnerships in order to offer this programme?				
Please Select Y/N:							
9.b.Please briefly detail th	e nature of the stud	y abroad (tick and	/ or provide additional detail as appropriate):				
i) Is it an additional/ replacent (please select)	nent year?						
Additional details:							
ii) Is it compulsory/ optional e	element of the						
Additional details:							
iii) If it is an additional year is	s it direct entry/	1					
transfer in? (please select)							
Additional details:		•					
iv) How will students taking Study Abroad be assessed?							
v) Can it be reassessed? (plea	ase select Y/N)		Explain how:				

Explain how:		
vi) If a student fails the	Study Abroad	which programme will they transfer onto or will they leave the University?
vii) How will the progra	mme team ma	mage the risks associated with offering Placement Learning and Study Abroad?
10. Work-based le	earning (inc	luding years in industry)
It is strongly recomm	ended that de	epartments that do not already have an established work-based learning programme should contact Careers for help and advice.
10.a. Does the progra	amme includ	e the opportunity to undertake work-based learning/ placements, including years in industry?
All such programmes	must comply	with the policy on work-based learning and placements
https://www.york.ac. This should include th	.uk/staff/tead	earning agreements between the student, department and work-place
Please Select Y/N:	No	if No move to section 11 if Yes complete the following questions
i) Is it a compulsory or o	optional eleme	ent of the programme?
Please Select:		
ii) Briefly detail the nate	ure of the wor	k-based learning:
(max 200 words)		
iii) Who will be respons arranging the placemer	ible for sourci nt: (please sele	ng and ct)
Additional details:		

iv) Is the work-based learr	ning an additional year in in	dustry?			
	if No move to	section 10.b.			
Please Select Y/N:	if Yes complet	e the following quest	ions		
v) Is it direct entry/ transfe	er in? (please select)				
Additional details:		•			
vi) What will be the criteri	a for the selection of locati	ons for work-based lo	earning?		
(max 200 words)					
vii) How will the departme	vii) How will the department ensure a sufficient number of work-based learning opportunities?				
(max 200 words)					
(max 200 words)					
VIII) How will the departm	ent make work-based learr	ling providers aware	of their responsibilities?		
(max 200 words)					
ix) How will the departme	nt make students aware of	their rights and resp	onsibilities?		
(max 200 words)					
x) How will students takin	g a year in industry be asse	ssed?			

(max 200 words) wi) Can it be reassessed? Please Select Y/N: If yes, please explain how: (max 200 words) (max 200 words) xii) How will the programme team manage the risks associated with offering a year in industry? (max 200 words) (max 200 words) 10.b. For programmes involving other forms of work-based learning other to years in industry (tis strongly recommended that departments that do not already have an established work-based learning programme should contact Careers for help and advice. All such programmes must comply with the policy on work-based learning and placements https://www.york.ac.uk/staff/teaching/procedure/programmes/design/	
(max 200 words) xi) Can it be reassessed? Please Select V/N: if yes, please explain how: (max 200 words) (max 200 words) xii) How will the programme team manage the risks associated with offering a year in industry? (max 200 words) 10.b. For programmes involving other forms of work-based learning other to years in industry (max 200 words) 10.b. For programmes involving other forms of work-based learning other to years in industry (trias 200 words) 10.b. For programmes involving other forms of work-based learning other to years in industry (trias 200 words) 10.b. For programmes must comply with the policy on work-based learning and placements http://www.work.ac.uk/staff/teaching/procedure/programmes/design/_ This should include the signing of learning agreements between the student, department and work-place i) What will be the criteria for the selection of locations for work-based learning? (max 200 words) ii) How will the department ensure a sufficient number of work-based learning opportunities? (max 200 words) ii) How will the department ensure of work-based learning opportunities?	
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Please Select Y/N:	xi) Can it be reassessed?
if yes, please explain how: (max 200 words) xii) How will the programme team manage the risks associated with offering a year in industry? (max 200 words) 10.b. For programmes involving other forms of work-based learning other to years in industry It is strongly recommended that departments that do not already have an established work-based learning programme should contact Careers for help and advice. All such programmes must comply with the policy on work-based learning and placements https://www.york.ac.uk/staff/teaching/procedure/programmes/design/	Please Select Y/N:
(max 200 words) xii) How will the programme team manage the risks associated with offering a year in industry? (max 200 words) 10.b. For programmes involving other forms of work-based learning other to years in industry It is strongly recommended that departments that do not already have an established work-based learning programme should contact Careers for help and advice. All such programmes must comply with the policy on work-based learning and placements https://www.york.ac.uk/staff/teaching/procedure/programmes/design/	if yes, please explain how:
(max 200 words) xii) How will the programme team manage the risks associated with offering a year in industry? (max 200 words) 10.b. For programmes involving other forms of work-based learning other to years in industry It is strongly recommended that departments that do not already have an established work-based learning programme should contact Careers for help and advice. All such programmes must comply with the policy on work-based learning and placements https://www.york.ac.uk/staff/teaching/procedure/programmes/design/	
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(max 200 words) 10.b. For programmes involving other forms of work-based learning other to years in industry It is strongly recommended that departments that do not already have an established work-based learning programme should contact Careers for help and advice. All such programmes must comply with the policy on work-based learning and placements https://www.york.ac.uk/staff/teaching/procedure/programmes/design/	
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https://www.york.ac.uk/staff/teaching/procedure/programmes/design/	All such programmes must comply with the policy on work-based learning and placements
This should include the signing of learning agreements between the student, department and work-place i) What will be the criteria for the selection of locations for work-based learning? (max 200 words) ii) How will the department ensure a sufficient number of work-based learning opportunities? (max 200 words) ii) How will the department make work-based learning providers aware of their responsibilities?	https://www.york.ac.uk/staff/teaching/procedure/programmes/design/
 i) What will be the criteria for the selection of locations for work-based learning? (max 200 words) ii) How will the department ensure a sufficient number of work-based learning opportunities? (max 200 words) iii) How will the department make work-based learning providers aware of their responsibilities? 	This should include the signing of learning agreements between the student, department and work-place
(max 200 words) ii) How will the department ensure a sufficient number of work-based learning opportunities? (max 200 words) iii) How will the department make work-based learning providers aware of their responsibilities?	i) What will be the criteria for the selection of locations for work-based learning?
(max 200 words) ii) How will the department ensure a sufficient number of work-based learning opportunities? (max 200 words) iii) How will the department make work-based learning providers aware of their responsibilities?	
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(max 200 words) iii) How will the department make work-based learning providers aware of their responsibilities?	ii) How will the department ensure a sufficient number of work-based learning opportunities?
(max 200 words) iii) How will the department make work-based learning providers aware of their responsibilities?	
(max 200 words) iii) How will the department make work-based learning providers aware of their responsibilities?	
iii) How will the department make work-based learning providers aware of their responsibilities?	(max 200 words)
	iii) How will the department make work-based learning providers aware of their responsibilities?

(max 200 words)
iv) How will the department make students aware of their rights and responsibilities?
(max 200 words)
v) How will students undertaking work-based learning be assessed?
(max 200 words)
vi) Can it be reassessed?
Please Select Y/N:
if ves. please explain how:
(max 200 words)
10.c. Support for students on work-based learning
I) How will students be briefed prior to, and de-briefed after, work-based learning?
(max 200 words)
ii) Who in the department will be responsible for overseeing students whilst they are undertaking work-based learning?
(max 200 words)
iii) By what means (e.g. work-based mentors, VLE, ongoing communication with the department) will students be supported when undertaking work-based learning?

(max 200 words)

iv) How will any work-based mentors be trained and utilised?

(max 200 words)

v) If mentors/ employers are to be involved in assessment how will they trained, supported and monitored?

(max 200 words)

vi) How will work-based learning be monitored and reviewed?

(max 200 words)

11. Additional information

11.a. Recognition of prior learning / credit transfer

Will this programme involve any exemptions from the University Policy and Procedures on Credit Transfer and the Recognition of Prior Learning? (Any exemptions must be
agreed by the BoS and PVC Teaching, Learning and Students and then detailed in a departmental statement on credit transfer and the recognition of prior learning –
contact your Quality Support Officer in the Academic Quality Team for guidance)

11.b. Continuing Professional Development

Will any of the programme's modules be available on a freestanding basis?

Please Select Y/N: No

if yes, please explain how:

11.c. Ethical considerations		
Does the programme give rise to any ethical issues	ues, which might v	varrant wider consideration within the University? (E.g. will the programme receive sponsorship from a
firm that is involved in activities that might give	rise to ethical con	cerns (e.g. tobacco/arms)? Will students need to conduct experiments on humans or animals)?
Please Select Y/N: No if yes, please	provide brief details	s to be referred onto the appropriate body within the University:
if yes, please provide brief details to be referred ont	o the appropriate b	ody within the University:
11.d. Student involvement in programme deve	lopment	
How were current and/ or former students invo	lved in the develo	pment of this proposal/ programme?
······································		
The proposed programme was discussed at Boa	ard of Studies mee	etings where existing student representatives had the opportunity to express their views.
11.e. External Examiners		
i) Will any additional external examiners need to be	appointed for the p	rogramme?
Please Select Y/N: No		
ii) Does the programme team envisage any difficultion	es in obtaining appr	opriate external examiners?
Please Select Y/N: No		
iii) Will any external examiners be drawn from		
outside academia? (please select Y/N)	No	
Additional details:		
11.f. Transfers out of or into the programme		
ii) Transfers into the programme will be possible?		
(nlease select Y/N)	Yes	
Additional details:		
Students on the 3-term programme can transfe Engineering	r between pathwa	ys at the end of the first term as the first term is common to all of the 3-term pathways in Science and
ii) Transfers out of the programme will be possible?		
(please select Y/N)	Yes	

Additional details:									
Students on the 3-term programme can transfer between pathways at the end of the first Engineering	st term as the first term is common to all of the 3-term pathways in Science and								
12. Exceptions to University Award Regulations approved by University Teaching Com	mittee								
Exception Please detail any exceptions to University Award Regulations approved by UTC	Date approved								
Quality and Standards									
The University has a framework in place to ensure that the standards of its programmes are ma	intained, 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, and via the National Student Survey. 									
More information can be obtained from the Academic Support Office:									
http://www.york.ac.uk/about/departments/support-and-admin/academic-support/staff/#quality_									
Date on which this programme information was updated:									
24th August 2017									
Departmental web page:									
www.york.ac.uk/ipc									

Please note:

The information above provides a concise summary of the main features of the programme and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if they take full advantage of the learning opportunities that are provided.

Detailed information on the learning outcomes, content, delivery and assessment of modules can be found in the module descriptions.

The University reserves the right to modify this overview in unforeseen circumstances, or where the process 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.

Template Last Updated 12/05/2017 by Adrian Lee

7. Programme Structure

7.a. Module Structure and Summative Assessment Map

Please complete the summary table below which shows the module structure and the pattern of summative assessment through the programme.

IMPORTANT NOTE:

If the structure of your full-time or part-time programme does not fit the usual academic year (for instance students start at the beginning of September or in January) you can use this sheet to plot the structure using a 52 week calendar from the first week of the programme. Include the start date in the 'start date' box and the relevant date for the 52 week year from that date will automatically populate the table.

To clearly present the overall programme structure, include the name and details of each invidual CORE module in the rows below. For OPTION modules, 'Option module' or 'Option from list x' should be used in place of specifically including all named options. If the programme requires students to select option modules from specific lists by term of delivery or subject theme these lists should be provided in the next section (7.b).

From the drop-down select 'S' to indicate the start of the module, 'A' to indicate the timing of each distinct summative assessment point (eg. essay submission/ exam), and 'E' to indicate the end of teaching delivery for the module (if the end of the module coincides with the summative assessment select 'EA'). It is not expected that each summative task will be listed where an overall module might be assessed cumulatively (for example weekly problem sheets). Use 'V' to represent where the vacation weeks of your programme will fall.

Summative assessment by exams should normally be scheduled in the spring week 1 and summer Common Assessment period (weeks 5-7). An additional resit assessment week is provided in week 10 of the summer term for postgraduate students. See Guide to Assessment, 5.4.a

http://www.york.ac.uk/about/departments/support-and-admin/registry-services/guide/

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Programme Map: Module Contribution to Programme Learning Outcomes

Please complete the summary table below which shows how individual modules contribute to the achievement of programme learning outcomes.

Core modules should be mapped individually. If the programme offers multiple options that contribute to exactly the same PLOs you can group these, providing a statement that articulates how all of these contribute to the achievement of the programme learning outcomes. All modules, both core and optional, should be accounted for in the map.

The table maps the contribution to programme learning outcomes made by each module, in terms of the advance in understanding/ expertise acquired or reinforced in the module, the work by which students achieve this advance and the assessments that test it. This enables the programme rationale to be understood: · Reading the table vertically illustrates how the programme has been designed to deepen knowledge, concepts and skills progressively. It shows how the progressive achievement of PLOs is supported by formative work and evaluated by summative assessment. In turn this should help students to understand and articulate their development of transferable skills and to relate this to other resources, such as the Employability Tutorial and York Award;

• Reading the table horizontally explains how the experience of a student at a particular time includes a balance of activities appropriate to that stage, through the design of modules.

Note: it is not expected that every module contributes directly to all PLOs, but every module should advance some of them.

(Add additional rows as required)

Stage	Module				Programme Lea	rning Outcomes			
		PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8
		Know and apply underpinning physical concepts, methods and theories in preparation for later study.	Use mathematics to solve problems and communicate effectively in the language of mathematics.	Carry out laboratory and computer based experiments safely and achieve meaningful results within well defined parameters.	Interpret and analyse experimental scientific data in order to draw conclusions.	Communicate clearly and effectively in the English language in both written and oral forms while demonstrating an understanding of academic conventions.	Demonstrate effective study skills, working constructively and effectively as self-directed learners and as members of a group, utilising information technology where appropriate.	Demonstrate an ability to solve well-defined problems, using Computer Science and Electronic Engineering principles to design and document solutions.	

Stage 1	Language and Study Skills 1	Progress towards PLO					Demonstrate an awareness of academic conventions and standards of academic integrity. Write a simple essay or report which develops an argument. Understand the general meaning and important details in simple academic or general texts, both written and spoken	Show the ability to understand and refer to or summarise information collected	
		By working on (and if applicable, assessed through)					Listening and Reading and skills portfolio	Listening and Reading and skills portfolio, presentation	
Stage 1	Core Science	Progress towards PLO	module refreshes student understanding of a range of key topics in biology and chemistry	Within their learning activities students will undertake numerous scientific problems that involve the application of mathematics to find a solution	The module contains practical work in chemistry, biology and physics	The module teaches students to be able to apply their theory understanding to their practical work. It also covers key skills such as drawing graphs of data.		practicals will usually be carried out in small groups and written up individually	
		By working on (and if applicable, assessed through)	end of module exam	all tasks	exam on practical work	exam on practical work		exam on practical work	

Stage 1	Foundation Mathematics	Progress towards PLO	Acquire essential mathematical tools required in a range of academic disciplines. Reason mathematically and deductively to draw conclusions		Interpret and communicate mathematical ideas		
		By working on (and if applicable, assessed through)	Exam	Exam	Exam		
Stage 1	Language and Study Skills 2	Progress towards PLO			Use appropriate lexical and grammatical resources to understand and use academic texts Produce an argument based on research expressed in both oral and written forms	Acquire effective study skills for lifelong learning and develop confidence as autonomous learners. Participate actively in class so as to become more confident orally and develop co- operative learning and teamwork skills, critical thinking skills, and note- taking skills	

		By working on (and if applicable, assessed through)			A set of tests and assignments that focus on the following four skills: reading, writing, speaking and listening.	A set of tests and assignments (including group work) that focus on the following four skills: reading, writing, speaking and listening.	
Stage 1	Advanced Mathematics	Progress towards PLO	This module will focus on developing the mathematics needed by those who will are planning to study further in subjects based upon maths such as physics, computer science or engineering. Students will develop an understanding of advanced calculus.	Where possible examples and data from relevant sciences will be used to deliver the mathematical teaching in this module			
		By working on (and if applicable, assessed through)	mid-module and end of module exams	mid-module and end of module exams			

Stage 1	Physics	Progress towards PLO	The module will aim to develop the knowledge of the common level 3 physics topic areas. Students will be able to apply their understanding to a range of common problems in physics	Regular laboratory practical work will be embedded into the course.	Practical work will require students to process their results and draw conclusions from their data.	English language will be the medium of teaching and development of content and language integrated learning is ongoing	Independence will be encouraged through the use of homework tasks. A range of activities will be included in the tasks completed by students. Some of these will include groupwork		
		By working on (and if applicable, assessed through)	End of module exam	Open book practical exam	open book practical exam				
Stage 1	Robotics, Programming and Electronics	Progress towards PLO		The course will be largely practical in nature with students building/progra mming robots and electronic circuits.	The portfolio will include tasks where students are asked to carry out testing of their designs and further refine them.	English language will be the medium of teaching and development of content and language integrated learning is ongoing	The portfolio will include tasks where students will need to consider such aspects as time management of their team, problem analysis and refining an intial design.	This module will have a focus on trying to use robots (in the first term) and electronics (second term) to solve simple problems. Students will need to develop the ability to use their classroom knowledge to build/program circuits and machines.	
		By working on (and if applicable, assessed through)		Presentation/ portfolio of tasks	Presentation/ portfolio of tasks	presentation/por tfolio of tasks	Portfolio of tasks.	Presentation/ portfolio of tasks	

Notes:

[1] The credit level is an indication of the module's relative intellectual demand, complexity and depth of learning and of learner autonomy (Level 4/Certificate, Level 5/Intermediate, Level 6/Honours, Level 7/Masters)

[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 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

[4] Independent Study Modules (ISMs) are assessed by a dissertation or substantial project report. They cannot be compensated (NC) and are subject to reassessment rules which differ from 'taught modules'. Integrated Masters programmes may designate a project in the final stage as an ISM which is then subject to the assessment rules as set out in the postgraduate programmes section of the Guide to Assessment.

Core & option module table (add additional rows as required)

Stage (e.g. Stage 1, Stage 2)	Core/ Option	New/ substantially revised module – Yes/ No	Module title	Module code	Credit level[1]	Credit value[2]	Prerequisites, Corequisites, Prohibited combinations (name of modules(s))	Assessment rules [3],[4]	Timing of module (eg. AuT – Autumn, SpT – Spring, SuT – Summer Term, Year long)	Format, contribution to module mark and timing of summative assessment(eg. essay, 50%, AuT wk10, exam and 50%, SpT wk1)
Stage 1	Core	Yes	Language and Study Skills 1		3	20	None	P/F; pass indicates student has reached CEFR B2 (lower) level	AuT	speaking exam (50%) week 11 AuT Writing exam (50%) wk 11 AuT
Stage 1	Core	Yes	Core Science		3	10	None	P/F; Pass mark is 40%	AuT	Mid-term exam, 30%, AuT wk 7; Exam, 70%, AuT wk 11
Stage 1	Core	Yes	Foundation Mathematics		3	10	None	P/F; Pass mark is 40%	AuT	Mid-term exam, 40%, AuT wk 7; Exam, 60%, AuT wk 11

			Language and Study Skills				Coursework is pass/fail. Final exam is a numerical score. Both coursework and exams are marked against CEFR	AuT-SpT; SpT-	A set of tests and assignments for each of the following four skills: reading, writing, speaking and listening. The module mark will be calculated as the average of the marks for each of the four skills. (There are also other assignments in this module which are assessed on a P/F basis. These do not contribute to the overall module mark but must be passed for successful completion of the
Stage 1	Core	Yes	2 (Science)	3	30	None	competencies.	SuT	module.)
Stage 1	Core	Yes	Physics	3	20	None	Pass mark is 40%	AuT-SpT; SpT- SuT	Open book practical exam, AuT, Wk11 30%; End of module exam SpT, wk 13, 70% Open book practical exam, SpT, Wk11 30%; End of module exam SuT, wk 13, 70%
Stage 1	Core	Yes	Advanced Mathematics	3	20	None	Pass mark is 40%	AuT-SpT; SpT- SuT	Mid-term exam, AuT, Wk11 30%; End of module exam SpT, wk 13, 70%; Mid-term exam, AuT, Wk11 30%; End of module exam SpT, wk 13, 70%
Stage 1	Core	Yes	Robotics, Programming and Electronics	3	10	None	Pass mark is 40%	AuT-SpT; SpT- SuT	Presentation 30% AuT wk11; Portfolio 70% SpT wk11; Presentation 30% AuT wk11; Portfolio 70% SpT wk11;

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