THE UNIVERSITY *of* EDINBURGH
College of Science & Engineering

Proposal for New Degree Programme

Stage 1

Contents

Grey text has been added to provide guidance. Please delete as you add your own text, remove italics, and change the font colour to black.

ABOUT THE PROGRAMME		
Title of programme	*PhD in Data Science and Artificial Intelligence*	
Intended Award	*PhD*	
Alternative awards	MPhil	
School	School of Informatics	
Programme Director	Amos Storkey	
Programme start dates	01/09/2019	
SCQF level of highest award	12	
Total credit value of programme *(for highest award)*	540	
Partner institution(s) if any		
Mode of delivery *(Please ✓those which apply to this programme)*	On campus	X
	Online	
	Blended learning	
	FT	X
	PT	
	Intermittent	
Expected length of programme	FT	**3 years**
	PT	
	Intermittent	
Description of the programme and its structure (maximum 150 words)		

The PhD in Data Science and Artificial Intelligence is a 3 year programme of intensive research, unifying the fields of Data Science and Artificial Intelligence, covering machine learning, statistics, artificial intelligence, computer vision, agent-based systems, speech and language processing amongst many others. The PhD programme has a research focus, but also involves direct engagement with company and public sector partners, training in responsible research and innovation, public engagement and transferable skills.

Career, employability and opportunities for continuing professional development.

Data Science and Artificial intelligence are impacting every area of society, and there are few professions where the skills of students from this programme are not needed. Students with the skills this programme provides are in exceptionally high demand, and we expect graduates from this programme to go on to be leaders in the field. Graduating students enter many careers from academic and company research posts, startups, data-scientist and AI roles in companies, or research posts in applications of AI in other fields.

BUSINESS CASE

This section should be used to outline the business case for the proposed programme. Before completing this section market research should have been undertaken.

STRATEGIC PLANNING, RECRUITMENT & COMPETITOR ANALYSIS	
Programme Title	PhD in Data Science and Artificial Intelligence
Programme Proposer	Amos Storkey
Strategic Planning	Data Science and AI are key to the whole University plan. This PhD programme is vital to Informatics, to the Bayes Centre and to the University as a whole. It has the backing of companies to the tune of 3.1M cash contribution from company partners.
Recruitment *Please provide a detailed commentary on your marketing and recruitment strategy.*	This PhD programme continues on from the PhD in Data Science, which had as many applications as the rest of Informatics combined. Recruitment will involve advertising across many channels, including channels that promote inclusivity, and recruitment involves a three stage shortlist, assessment and interview programme.

Competitor Analysis	There a no UK competitors who can touch this programme: it continues from an established programme for the last 5 years. UCL's proposed programme is likely to be the nearest competitor, but it not clear yet. As they do not yet have the programme, we cannot state their fees.
A competitor analysis report provides a better understanding of the marketplace and competition, from the going rate for tuition fees to the unique selling points and marketing strategies of competitor programmes.	Competitors in the US include Stanford, Berkeley, MIT, University of Washington, Montreal etc.

Competitor Fees	Institution	Programme	Fees	
Provide the fee structure (in British pounds) of three competitors, preferably those mentioned in the competitor analysis. These may be UK or International competitors.			Home	International
	MIT	PhD in Computer Science	$49,892	$49,892
	University of Washington	PhD in Computer Science	$18,852	$32,760
	UCL	PhD in Computer Science	£9,000?	£21,000?

FEES AND COSTING		
Programme fees	Home-Scotland / EU	£4,327
Fees are expressed per academic year in British pounds. For PGT programmes, a Programme Costing Template will also be required for Fee Strategy Group.	Home-RUK	£4,327
	Overseas	£22,200
Fees for each new PGT programme are sent by College to the Fee Strategy Group (FSG) for review and approval. The FSG has developed a Programme Costing Template to give FSG insight into the anticipated profitability of a programme and where it sits within its market. The Fees Costings template, and guidance from FSG on filling out the template is included in the spreadsheet attached to the right.	FSGProgrammeCost ingTemplateFinalHS

Additional Programme Costs (PGR only)

Additional costs to the student should be noted and justified in the table below. These should consist of items that are over and above the basic provision that should be available to all students and should reflect the special additional costs associated with the specific programme of study. Individual items over £200 should be noted on a separate row.

Item	Cost	% of Total
Travel	7500	100
Computing Costs	12500	100
Total:		100%

ANTICIPATED AND PROJECTED ENROLMENTS

What are the anticipated and projected enrolments over the next three years?

	Year 1	Year 2	Year 3
Home	8	9	9
International	1	1	1
Supporting Research What market research has been planned or completed to support the predicted student numbers?	None is needed this is a continuation of an existing programme (PhD in Data Science) that is receiving 250 applications a year, and already recruiting these numbers.		

PLANNING AND RESOURCES

New Courses	No new courses needed.
Facilities and Equipment	Facilities are either standard (lecture halls), have been budgeted for (desk space) or are budgeted via the CDT (compute resource).
Staff	There are 85 potential supervisors for this programme.
Resource Sharing	Resources are shared where applicable (e.g. the Responsible Research training).

COLLABORATIVE PROGRAMMES

Additional information is required for new programmes that are collaborations with external institutions or organisations which will result in a joint award and/or where taught components are shared. International partnerships must have a Memorandum of Understanding (MoU) in place before the programme can be approved by College.

Should the proposal be progressed to Stage 2 a draft Memorandum of Agreement (MoA) will need to accompany the submission.

Separate guidance is available for the development of collaborative programmes.

http://www.ed.ac.uk/governance-strategic-planning/collaborative-activity/guidance-templates

N/A

CONSULTATION AND APPROVAL

Programme Title:	PhD Data Science and Artificial Intelligence
Programme Proposer:	Amos Storkey

STAGE 1: CONSULTATION

Please confirm consultation with relevant stakeholders has taken place.

Stakeholder	Yes	NA
School Director of Professional Services	☒	☐
School Academic Administration Staff	☒	☐
Information Services (including Academic Support Librarians)	☒	☐
Student Body (SSLC/Student representatives)	☒	☐
Partner School Staff (E.G. Joint Programmes/shared courses etc)	☒	☐
Employers	☒	☐
Industry and Professional Bodies	☒	☐
External Consultation	☒	☐
Please note any other consultation		

Please provide a brief comment on the consultation process

Extensive, originally as part of a CDT bid.

Please provide a brief comment on the consultation process with External consultants

~40 external partners. Advisory board of high profile academic and company advisors.

STAGE 2: SCHOOL BOARD OF STUDIES REVIEW AND APPROVAL

Confirmation of approval of the proposal at the School Board of Studies should be entered below.

Date of BoS:

Convener Name:

Comment and Approval (BoS Minute):

Please provide either a link to the minutes of the Board or a copy of the relevant text from the minutes.

STAGE 3: HEAD OF SCHOOL REVIEW AND APPROVAL

Head of School:
Please print name
Comment and Approval:
Signature:

STAGE 4: COLLEGE CURRICULUM APPROVAL BOARD REVIEW AND OUTCOME

Date of CCAB:	
Convener Name:	
Stage 1 Outcome (please select as appropriate)	
Permission to proceed to Stage 2	☐
Permission to proceed to Stage 2 with conditions	☐
Proposal rejected with recommendations	☐
Proposal rejected	☐
Comment:	

Document Control

Date approved: Start date:	Amendments:	Date for next review: April 2018
Contact name & role: Matt Elliot	Department: College Academic Affairs	Email: Matt.Elliot@ed.ac.uk
If you require this document in an alternative format please email: deanga@exseed.ed.ac.uk		