

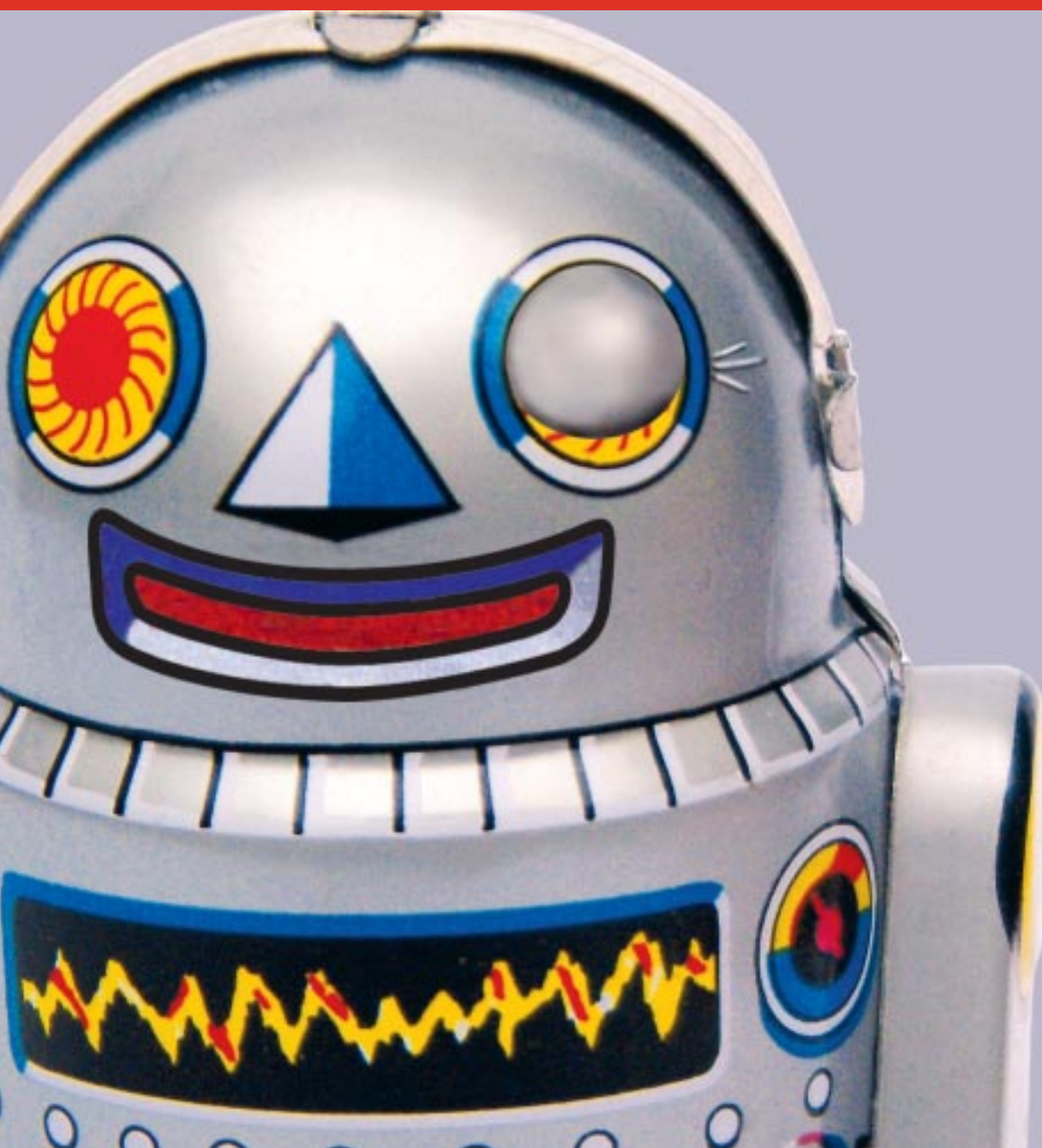
Where will you be in September?



Robotics with Artificial Intelligence

BSc Hons 3/4-year courses

MAKING KNOWLEDGE WORK



DRAFT COURSE STRUCTURE

Honours Degree programme in **Robotics with Artificial Intelligence**

FIRST YEAR		SECOND YEAR		FINAL YEAR	
SEMESTER 1	SEMESTER 2	SEMESTER 1	SEMESTER 2	SEMESTER 1	SEMESTER 2
Scientific Programming CY0108M	Electromechanics CY0107M	XML Programming CY(NEW)M	Morphing Signals CY0203M	Final Year Project CY0301K	
Computer Skills ECDL CY(NEW)M	Analogue Electronics ENG5007M	Basic Computer Networking CY0111M	Biologically Inspired Computing CY0104M		
Digital Electronics 1 ENG1037M	Modelling & Simulation CY0105M	Digital Electronics 2 ENG2018M	Robotics 3 CY0209M	Advanced Prolog Programming CY(NEW)M	Robotics 5 CY(NEW)L
Key Skills for Computing Professionals CM0113L		Prolog Programming CY(NEW)M	Robotics 4 CY0316M	Cryptography & Network Security CY0305M	OPTION Choose three from:
Robotics 1 CY0115M	Robotics 2 CY0215M	Advanced Programming CY0214M	OPTION Choose two from: Cyberpsychology CY0202M How to Run an SME CY0212M Science & Society CY0216M	OPTION Choose two from: Computer Networks CY0303M Computer Control CY0304M Multimedia Applications Development EMO225M	Real-Time Computing & Instrumentation ENG3018M Imaging & Image Processing CY0317M Science & Society CY0216M Web Programming and Scripting CY0314M
Structured Programming CY0114M	JAVA Programming CY0110M	Sensors & Actuators CY0205			

WHAT IS THE COURSE ABOUT?

We are on the edge of a new robot revolution to provide support in all aspects of our lives in the home, at work and in transport. The course will introduce you to the robotic systems that will make that revolution possible.

Robotics with Artificial Intelligence (AI) is the study of computers behaving like humans. It will enable you to gain a physical connection to this behaviour, allowing you to build Robotics that can use all human senses, including touch and sound.

WHO IS THE COURSE SUITABLE FOR?

If you are good with computers, have an interest in how things work, especially in artificial intelligence, and want to lead in the next technological revolution, then this course is for you.

WHAT WILL I GET OUT OF THE COURSE?

You will gain an understanding of the basic mechanical, electrical sensors and computers at the heart of any robot. You will learn how to set up systems that control the tiny actions of a robot and how this is delivered from a supervisory control command. You will also learn the context of robotic operation as autonomous

“The supervisory command
Smile will cause detailed controls
to 26 muscles
in your face
in order to
produce a grin”



systems operating on the Web or within a collection of robots and how the communications systems work.

WHAT CAN I PROGRESS TO AFTER THE COURSE?

After the course you could go on to become a developer and build powerful applications for the automotive, consumer electronics, healthcare, industrial cleaning, military, public safety or retail industries, to name just a few.

WHAT FACILITIES ARE AVAILABLE?

In addition to the facilities provided by the University Library and Computer Centre, the Department of Cybernetics has one of the highest computer/student ratios on campus with 2 student-run workshops open 24 hours a day, 7 days a week and

dedicated robotic and final-year laboratories.

We are currently in the process of adding “wireless hotspots” so you will be able to connect to the School of Informatics network using your “wi-fi”-enabled laptop.

INDUSTRY PLACEMENTS

All of our BSc programmes are available either as three-year continuous courses, or as four-year sandwich courses, with a year in paid employment between the second and final years.

HOW IS THE COURSE TAUGHT?

- Teaching
- Practical work
- Individual and group project work
- Industrial placements (optional)

UCAS CODES

The UCAS code for the University of Bradford is **BRADF B56**

ROBOTICS WITH ARTIFICIAL INTELLIGENCE[†]

**BSc 3 years
BSc 4 years***

**H6GR BSc/ RobWAI
H6G7 BSc/ RobAI4**

[†]Subject to approval. Prior to submitting a formal application via UCAS, please contact the Department for an update on course availability. *includes one-year work placement

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ENTRY REQUIREMENTS

For entry into the three- or four-year courses you will preferably have grade C or above at GCSE Mathematics.

We have no essential subject requirements at GCE A level (we accept General Studies), though subjects such as numeracy, ICT and English may be an advantage.

Relevant VCEs are acceptable, as are BTEC Certificates/Diplomas, Access courses and a range of overseas qualifications (**NB** a good score in IELTS or TOEFL will be required for overseas applicants whose first language is not English).

You can supplement your offer by adding in A/S Levels and Key Skills. Our normal offer to candidates is **240 points**, depending on course and subject mix. Applications for our courses must be made through UCAS.

CONTACT DETAILS

Please telephone the Recruitment Office for further information and enquiries on 01274 235963, email ugadmissions@inf.brad.ac.uk or visit www.cyber.brad.ac.uk.