

**SCHOOL OF ELECTRONIC ENGINEERING**

**AND COMPUTER SCIENCE**

**PROGRAMME DESCRIPTOR 2024-2025**

**BSc Computer Science and Artificial Intelligence (3 years) I400**

**Please note this programme has a compulsory first, second, final year module diet and Core Final Year Project**

**Year 1 Modules**

**Semester 1**

ECS401U Procedural Programming (15 credits)

ECS404U Computer Systems and Networks (15 credits)

ECS407U Logic and Discrete Structures (15 credits)

ECS427U Professional and Research Practice (15 credits)

**Semester 2**

ECS414U Object Oriented Programming (15 credits)

ECS417U Fundamentals of Web Technology (15 credits)

ECS419U Information Systems Analysis (15 credits)

ECS421U Automata and Formal Languages (15 credits)

**Year 2 Modules**

**Semester 3**

ECS509U Probability and Matrices (15 credits)

ECS529U Algorithms and Data Structures (15 credits)

ECS533U Introduction to Artificial Intelligence (15 credits)

EMS516U Aspects of Robotics (15 credits)

**Semester 4**

ECS518U Operating Systems (15 credits)

ECS534U Generative Deep Learning (15 credits) (replacing ECS534U Nature Inspired Computing (15 credits) 24-25)

ECS535U AI for Decision Making (15 credits)

**Plus one from** **(only with approval from the CS&AI Programme Director):**

ECS537U Design and Build Project in Artificial Intelligence (15 credits)

EMS511U Robot Design and Mechatronics (15 credits)

**Final Year Module**

**Semester 5 and 6**

ECS635U Project (30 credits) **Core**

**“Vision and Data" stream**:

**Semester 5**

ECS663U Principles of Machine Learning (15 credits)

ECS607U Data Mining (15 credits)

ECS669U Computational Imaging (15 credits)

**Semester 6**

ECS647U Bayesian Decision and Risk Analysis (15 credits)

ECS664U Machine Learning for Visual Data Analysis (15 credits)

ECS665U Introduction to Natural Language Processing (15 credits)

**"Games and Music" stream:**

**Semester 7**

ECS663U Principles of Machine Learning (15 credits)

ECS666U Logic in Computer Science (15 credits)

ECS657U Multi-platform Game Development (15 credits)

**Semester 8**

ECS647U Bayesian Decision and Risk Analysis (15 credits)

ECS667U Music Informatics (15 credits)

ECS668U Computational Game Design (15 credits)

**5 January 2024**