

TECH: Artificial Intelligence in the Wild

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TECH: Artificial Intelligence in the Wild

Module Content & Assessment

Indicative Content

Introduction to Artificial Intelligence

A brief history of AI. Disambiguation between terms such as Artificial Intelligence, Machine Learning, Deep Learning and Data Science.

Machine learning

Machine learning and knowledge acquisition to include basic concepts such as search techniques, distance measures, linear models, K nearest neighbours.

Evolving Intelligence Focusing on non-symbolic AI such as Neural Networks and Genetic Algorithms.

Programming Al A selection of current technologies/software applications such as Python, Tensorflow, sklearn.

Al applications in the real world

Learning how to develop solutions within real time and physical contexts such as Object Detection, Image recognition, Robotics, and Natural Language Processing.

Intelligence at the Edge

Understanding the constraints/requirements for power, memory, and storage when dealing with stand alone systems in the field (edge computing).

| Assessment Breakdown | % |
|----------------------------------|--------|
| Continuous Assessment | 30.00% |
| Project | 30.00% |
| End of Module Formal Examination | 40.00% |

| Continuous Assessment | | | | | |
|-----------------------|----------------------------------|----------------------|---------------|--------------------|--|
| Assessment Type | Assessment Description | Outcome addressed | % of total | Assessment Date | |
| Case Studies | A number of lab based exercises. | 1,2,3 | 30.00 | n/a | |

| Project | | | | | |
|-----------------|---------------------------|----------------------|---------------|--------------------|--|
| Assessment Type | Assessment Description | Outcome addressed | % of total | Assessment Date | |
| Project | Individual/Group Projects | 1,2,3 | 30.00 | n/a | |

No Practical

| End of Module Formal Examination | | | | | | |
|----------------------------------|----------------------------------------|----------------------|---------------|-----------------|--|--|
| Assessment Type | Assessment Description | Outcome addressed | % of total | Assessment Date | | |
| Formal Exam | Written examination of module content. | 1,2 | 40.00 | End-of-Semester | | |

SETU Carlow Campus reserves the right to alter the nature and timings of assessment



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Module Workload

| Workload: Full Time | | | | |
|---------------------------|-----------------------|---------------------------------------|--|--|
| Workload Type | Frequency | Average Weekly Learner Workload | | |
| Lecture | 12 Weeks per Stage | 1.00 | | |
| Laboratory | 12 Weeks per Stage | 3.00 | | |
| Independent Learning Time | 15 Weeks per Stage | 5.13 | | |
| | Total Hours | 125.00 | | |

Module Delivered In

| | Programme Code | Programme | Semester | Delivery |
|---|----------------|--------------------------------------------------------------|----------|------------------|
| ſ | CW_KCCGD_B | Bachelor of Science (Honours) in Computer Games Development | 8 | Group Elective 1 |
| | CW_KCCYB_B | Bachelor of Science (Honours) in Cyber Crime and IT Security | 8 | Elective |
| | CW_KCSOF_B | Bachelor of Science (Honours) in Software Development | 8 | Group Elective 1 |