The Hong Kong University of Science and Technology (Guangzhou)

Title: AIAA1010 - Academic Orientation for AI Students 人工智能学生学术方向指导

Credit(s): 1

Type: Required
Prerequisite(s): N/A
Exclusion(s): N/A

Graded P or F.

Names, emails, office hours of instructors: see the weekly schedule.
Lecture time: 16:30-17:20 Monday
Lecture location: W1-101

Course Description

This course provides guidance to undergraduate students of the AI major for their academic path and future. This course is mostly introductory and aims to inspire UG students for their academic path development and growth of maturity during their UG study. Activities mainly include seminars and interaction with faculty and teaching staff.

Weekly Schedule

Week	Date	Instructor	Lecture Content	Lecture Group
Week 1	2026-01-26	Zeke XIE	Overview of Deep Learning Theory	AI Foundations
Week 2	2026-02-02	Yutao YUE	Towards Conscious AI	AI Foundations
Week 3	2026-02-09	Menglin YANG	Foundation of LLM: From Pretraining, Mid Training to Post Training	AI Foundations
Week 4	2026-02-28	Xiaowen CHU	Magic of Low-Precision Computing behind LLMs	AI Foundations
Week 5	2026-03-02	Sihong XIE	Interpretable AI	AI Methods
Week 6	2026-03-09	Xin WANG	Foundations of Quantum Computing	AI Methods
Week 7	2026-03-16	Ge BAI	Quantum Entanglement and Applications	AI Methods
Week 8	2026-03-23	Chengwei Qin	LLM Reasoning and Agent	AI Methods
Week 9	2026-03-30	Zeyu WANG	Toward Synergistic Human-AI Content Creation	AI Applications
Week 10	2026-04-13	Huangxun CHEN	Overview of Embedded AI	AI Applications
Week 11	2026-04-20	Ge Lin Kan	Generative AI for Urban Digital Twin	AI Applications
Week 12	2026-04-27	Junwei Liang	Towards General Service Embodied AI	AI Applications
Week 13	2026-05-11	Apostolos RIKOS	AI and Multi-Agent Networks	AI Applications

Intended Learning Outcomes (ILOs)

Upon completion of this course, students are expected to be able to do the following:

	Course ILOs	**Nature of the learning outcomes** *(A - Knowledge/Content Related; B - Academic Skills/Competencies; C - Others)*
1	Demonstrate understanding of robotics, computer vision, NLP, optimization, machine learning, speech processing.	A
2	Academic writing skills for AI techniques	B

Contribution of Learning Outcomes to AI undergraduate programs:

	Program of study: BEng in Artificial Intelligence **Program ILOs**	**To be achieved through these course ILOs**
1	Analyze AI and computing problems in different areas of science, technology and the society, and apply AI principles to produce solutions.	CILO-1
2	Communicate effectively in a variety of professional contexts, including both lay and expert audiences.	CILO-2
3	Recognize professional responsibilities and make informed and independent judgments through solving practical AI models based on legal and ethical principles.	CILO-1

Assessment and Grading
Each week there will be a set of homework questions to be answered and submitted by the students on Canvas.

All 13 assignments consist of 80% of the total grades. The assigments mainly include choice questions and other possible formats according to each instructor's policy.

The remaining 20% comes from classroom attendance and class engagement in discussion. Attendance will be recorded by GTAs for each lecture. Other class engagement activities may be sometimes invoked depending on each instructor.

This course will be assessed using criterion-referencing and grades will not be assigned using a curve. Detailed rubrics for each assignment are provided below, outlining the criteria used for evaluation.

Assessments:

Assessment Task	Contribution to Overall Course grade (%)	Due date
Assignments	80%	Release after each lecture due in one week
Class Engagement	20%	N/A

* Assessment marks for individual assessed tasks will be released within two weeks of the due date.

Mapping of Course ILOs to Assessment Tasks

Assessed Task	Mapped ILOs	Explanation
Attending lectures	ILO 1, ILO 2	This task requires students to learn concepts and knowledge about various AI sub-fields (ILO 1). There is one session on academic writing for AI (ILO 2).
Assignment	ILO 1, ILO 2	The homework assess students' ability to analyze AI problems (ILO 1), synthesize solutions (ILO 1). Homework asks student to write short paragraphs (ILO 2).

Grading Rubrics
Grading rubrics will be released after each homework assignment is graded. Students who have questions about their grades shall contact course Graduate Teaching Assistants (GTA) within ONE WEEK after the grades are released. After that, no appealing will be accepted.

Final Grade Descriptors
With the implementation of Outcome Based Education(OBE), the course adopts criterion-referenced assessment (CRA) and assign grades that reflect students' achievement of course ILOs. Specifically,

Grades	Short Description	Point Range	Elaboration on subject grading description

P	Satisfactory Performance or above	≥ 60	Demonstrates a good grasp of subject matter, expertise in problem-solving, and creativity in thinking. Exhibits capacity for scholarship and collaboration. Meet core requirements to achieve learning goals.
F	Fail	< 60	Demonstrates insufficient understanding of the subject matter and lacks the necessary problem-solving skills. Shows limited ability to think critically or analytically and exhibits minimal effort towards achieving learning goals. Does not meet the threshold requirements for professional practice or development in the discipline.

- https://www.hkust-gz.edu.cn/academics/academic-quality-manual/assessment/obe-ilos-and-criterion-referenced-assessment-cra/
- https://www.hkust-gz.edu.cn/academics/academic-quality-manual/assessment/grading-of-courses/

Course AI Policy
Students are encouraged to use AI tools to maximize the learning outcomes of this course.

Communication and Feedback
Assessment marks for individual assessed tasks will be communicated via Canvas within two weeks of submission. Students who have further questions about the feedback including marks should consult the instructor within five working days (one week) after the feedback is received.

Resubmission Policy
We do not allow resubmission of homework.

Late policy
Each student has a quota of 7 late days to use for all homework. A late of less than 24 hours is counted as one late day. After 7 late days are used up, there is no further extension given, and a late submission will be penalized for 50% for its earned scores.

Required Texts and Materials
There is no required texts or materials. However, the instructor of each lecture may provide further optional texts or materials for students to learn more about the corresponding topic.

Academic Integrity
Students are expected to adhere to the university's academic integrity policy. Students are expected to uphold HKUST(GZ)'s Academic Honor Code and to maintain the highest standards of academic integrity. The University has zero tolerance of academic misconduct. Please refer to Regulations for Academic Integrity and Student Conduct for the University's definition of plagiarism and ways to avoid cheating and plagiarism.