

DSC6023: INTERNSHIP IN ARTIFICIAL INTELLIGENCE FOR SCIENCES

Effective Term

Semester A 2026/27

Part I Course Overview

Course Title

Internship in Artificial Intelligence for Sciences

Subject Code

DSC - Data Science

Course Number

6023

Academic Unit

Data Science (DS)

College/School

College of Computing (CC)

Course Duration

One Semester

Credit Units

3

Level

P5, P6 - Postgraduate Degree

Medium of Instruction

English

Medium of Assessment

English

Prerequisites

Students should have completed 27 credit units in Semester A and Semester B before they take the Internship course (3 credit units) in the Summer Term of Year 1.

Precursors

Nil

Equivalent Courses

SDSC6023 Internship in Artificial Intelligence for Sciences

Exclusive Courses

DSC6024 Dissertation for Artificial Intelligence for Sciences

SDSC6024 Dissertation for Artificial Intelligence for Sciences

Part II Course Details

Abstract

In this course, each student will work in an industrial/research setting under the joint supervision of a CityUHK faculty member and an external industry/research supervisor* at a local/overseas host institution. Each student will gain hands-on experience in tackling challenging AI for science problems in an industry/business/research area of his/her choice. Specifically, this course aims to cultivate each student's ability to independently formulate and solve real AI for science problems in an application area of his/her choice, and it also aims to develop each student's data science skills and knowledge further in the scientific domain of his/her choice. The course provides a platform for students to demonstrate their ability to innovatively apply data science theories and methods they learnt in classrooms, or develop new data science theories and methods to solve complex real-world problems. Students are expected to independently apply or develop advanced data science theories and methods to solve significant real-world scientific problems in the course.

*If the internship position is an internal one (i.e., at CityUHK), then an external industry/research supervisor is not needed.

Course Intended Learning Outcomes (CILOs)

CILOs		Weighting (if DEC-A1 app.)	DEC-A1	DEC-A2	DEC-A3
1	Identify and formulate one or more challenging AI for science problems that are all in one application area, analyze the problems, and critically review existing solutions (if any).	15	x	x	
2	Propose one or more innovative solutions to each identified problem through innovative application of existing data science theories and methods, or development of new AI for science theories and methods.	25	x	x	x
3	Critically assess the value and impact of the proposed innovative AI solutions on scientific problems, and compare the proposed solutions to existing alternative solutions (if any).	20	x	x	
4	Document and report all aspects of the AI for science studies (including but not limited to the problem formulations, analyses, proposed solutions, and solutions assessments).	25			x
5	Communicate effectively with the industrial and university supervisors to demonstrate the ability to independently complete the internship AI for science studies	15	x		

A1: Attitude

Develop an attitude of discovery/innovation/creativity, as demonstrated by students possessing a strong sense of curiosity, asking questions actively, challenging assumptions or engaging in inquiry together with teachers.

A2: Ability

Develop the ability/skill needed to discover/innovate/create, as demonstrated by students possessing critical thinking skills to assess ideas, acquiring research skills, synthesizing knowledge across disciplines or applying academic knowledge to real-life problems.

A3: Accomplishments

Demonstrate accomplishment of discovery/innovation/creativity through producing /constructing creative works/new artefacts, effective solutions to real-life problems or new processes.

Learning and Teaching Activities (LTAs)

LTAs		Brief Description	CILO No.	Hours/week (if applicable)
1	Internship project planning	Students will engage in identifying and formulating problems in one application area for investigation, and drafting a project plan with appropriate milestones	1	
2	Internship project proposal	Students will analyze the identified problems and review existing and/or related solutions. Then, they will develop their own innovative ideas on how the problems can be solved, and establish the basic details of those ideas.	1, 2	
3	Internship project implementation and evaluation	Students will fully develop their proposed innovative solutions and implement them in large-scale or small-scale settings. Then, students will validate the effectiveness of their solutions.	2, 3	

4	Internship project documentation	Students are required to produce progress reports and a final report as an integral part of the project documentation. At the end, they are required to present their projects orally with the aid of slides.	4	
5	Regular updates	Students will regularly communicate with the CityUHK supervisor and external industry supervisor for guidance and support.	5	

Assessment Tasks / Activities (ATs)

	ATs	CILO No.	Weighting (%)	Remarks ("- for nil entry)	Allow Use of GenAI?
1	Project Proposal	1, 2	20	-	Yes
2	Project Milestone Meetings	2, 3, 5	30	-	Yes
3	Project Report	1, 2, 3, 4, 5	20	-	Yes
4	Oral Presentation	1, 2, 3, 4, 5	30	-	Yes

Continuous Assessment (%)

100

Additional Information for ATs

No formal syllabus. Students will be required to undertake individual projects.

Assessment Rubrics (AR)**Assessment Task**

Project Proposal (for students admitted in Semester A 2026/27 & thereafter)

Criterion

20%

Pass (P)

Students must demonstrate satisfactory performance in assigned tasks, and meet essential learning objectives as evaluated by the supervisor. A minimum of [e.g., 60% or 'satisfactory'] performance rating is required to pass.

Failure (F)

Not even reaching marginal levels as evaluated by the supervisor.

Assessment Task

Project Milestone Meetings (for students admitted in Semester A 2026/27 & thereafter)

Criterion

30%

Pass (P)

Students must demonstrate satisfactory performance in assigned tasks, and meet essential learning objectives as evaluated by the supervisor. A minimum of [e.g., 60% or 'satisfactory'] performance rating is required to pass.

Failure (F)

Not even reaching marginal levels as evaluated by the supervisor.

Assessment Task

Project Report (for students admitted in Semester A 2026/27 & thereafter)

Criterion

20%

Pass (P)

Students must demonstrate satisfactory performance in assigned tasks, and meet essential learning objectives as evaluated by the supervisor. A minimum of [e.g., 60% or 'satisfactory'] performance rating is required to pass.

Failure (F)

Not even reaching marginal levels as evaluated by the supervisor.

Assessment Task

Oral Presentation (for students admitted in Semester A 2026/27 & thereafter)

Criterion

30%

Pass (P)

Students must demonstrate satisfactory performance in assigned tasks, and meet essential learning objectives as evaluated by the supervisor. A minimum of [e.g., 60% or 'satisfactory'] performance rating is required to pass.

Failure (F)

Not even reaching marginal levels as evaluated by the supervisor.

Part III Other Information

Reading List