

The Hong Kong University of Science and Technology

UG Course Syllabus Template (Simplified version uploading to SENG website)

[Course Title] Robotics Special Project: MATE ROV Competition 2025

[Course Code] ENGG3961G

[No. of Credits] 4 (3 credits in the spring semester and 1 credit in the summer semester)

[Any pre-/co-requisites] No pre-/co-requisites

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Course Description

The Marine Advanced Technology Education (MATE) Remotely Operated Vehicle (ROV) Competition is an international competition for young engineers. Student teams will design and manufacture the underwater robot for tackling different missions and challenges which are provided by the organizer.

Learning goals and objectives for HKUST undergraduate students enrolled in this project are:

- To participate actively in team discussions and decision-making processes.
- To enhance students' robotics skill sets through targeted activities.
- To implement design thinking principles in tackling robotics solution.
- To collaborate and communicate effectively within a multidisciplinary and multinational team.
- To acquire professional and technical knowledge in robot design, research, and development processes.
- To develop soft skills in team management and collaboration.

Course requirement for HKUST undergraduate students enrolled in this project are:

- Each student is required to submit both peer and self-evaluations throughout the course.
- Each student or group must submit a project proposal and a final report to the Project Supervisor(s).
- Attendance at the Robot Design Contest is mandatory for all students.
- All students should adhere to agreed-upon deadlines and demonstrate commitment to the time devoted to all interactions—punctuality and thorough preparation are essential.

Assessments:

[List specific assessed tasks, exams, quizzes, their weightage]

Assessment Task	Contribution to Overall Course grade (%)
Peer Evaluation	20%
Presentation	50%
Final Project Demonstration	15%
Final Report	15%

Required Texts and Materials

All students must attend the Robot Design Contest as required

[Optional] Additional Resources

N/A