

NIE352 Interdisciplinary Problem-Solving for Impact

Level: 3

Credit Units: 5 Credit Units

Language: ENGLISH

Presentation Pattern: EVERY REGULAR SEMESTER

Synopsis:

Following on from the course NIE201 Interdisciplinary Processes for a Better World in which the skills and knowledge about interdisciplinary learning are developed, this course focuses on applying those skills to complex problems identified by local industry, community, or government agencies. As a unique island nation-state and society, the issues Singapore face are often complex and multi-faceted, thereby requiring solutions to these problems to be taken from a multi-disciplinary or interdisciplinary perspective. Facilitated by academic lead(s) and representative(s) from the partner organisation, students work in teams to research, analyse, and present solutions to an authentic problem drawing on the interaction of different disciplines. Students also build on their interpersonal and problem-solving skills by engaging with and learning from peers and facilitators. At the end of the course, students will experience how a particular phenomenon can be addressed from more than one discipline and that synergy across boundaries, while challenging to integrate, can lead to a better solution. This experience will be invaluable in preparing students for work settings that are ill-structured and VUCA in nature.

Topics:

- Problem identification, framing and analysis
- Quantitative and qualitative research methods
- Analysis of positionality and power with stakeholders involved in phenomenon
- Integration of different disciplinary bases on problem and initial solution formulation
- Initial solution ideation and implementation strategies
- Interdisciplinary collaboration and perspectives taking
- Problem solving and critical thinking
- Feedback on initial solution and refinement
- Continuous solution improvement
- Risk analysis and change management
- Presentation and communication of interdisciplinary process and solution
- Appropriation of professional and stakeholders' practice and perspectives

Learning Outcome:

- Examine the assumptions and perspectives of different disciplines or professional expertise
- Use various disciplinary bases to address complex problem
- Create solutions in teams that address most dimensions of the complex problem
- Discuss the societal, disciplinary, and ethical implications of a problem and its solution
- Develop interpersonal, interdisciplinary and problem solving skills
- Demonstrate a commitment to the role of a professional contributor to the industry or community practice

Assessment Strategies - Regular Semester (Daytime Class):

Components	Description	Weightage Allocation (%)
Overall Continuous Assessment	TUTOR-MARKED ASSIGNMENT 1	30
	GROUP BASED ASSIGNMENT 1	40
	GROUP BASED ASSIGNMENT 2	30
Total		100

*The information listed is subject to review and change.