Title (Units): **GCAP3055 GE Capstone Interdisciplinary Independent Study (COMP) (3,0,9)**

Course Aims: This GE Capstone will provide students with the opportunity to conduct an independent interdisciplinary study under the supervision of a faculty member of the Department of Computer Science. Student will choose a community issue or concern that is of interest to her/him, conduct systematic study, apply knowledge and skills that s/he has gained from the major study and other disciplines, and provide an innovative solution to address the issue. The study aims to allow students to think beyond their field of expertise, make connections between their learning and real-world issues, and deepen their analytic and creative skills. All these are competences that students will need in the complexity of the contemporary world and workplace as responsible and responsive global citizens.

The GE Capstone Interdisciplinary Independent Study offered by our department will particularly focus on projects that (1) involve direct engagement with community members, (2) are interdisciplinary in approach with understanding of technological and cultural contexts, and (3) reflect on students' own learning to gain insight into their interactions with community members and the world.

Prerequisite: Nil

Course Intended Learning Outcomes (CILOs):
Upon successful completion of this course, students should be able to:

No.	Course Intended Learning Outcomes (CILOs)
	Knowledge
1	Explain how different disciplines approach, interpret and influence understanding of a community issue/problem identified by the student(s);
2	Produce an interdisciplinary understanding of the community issue by integrating knowledge and modes of thinking drawn from two or more disciplines with understanding of the technological and cultural contexts of the issue/problem;
	Skill
3	Address the community issue/problem with an innovative and holistic solution, and present the solution in a logical, systematic and convincing way;
	Attitude
4	Develop a reflective attitude and appreciation of the importance of teamwork by engaging actively and constructively with the supervisor and community members, and (for group projects) team members.

Calendar Description: This GE Capstone will provide students with the opportunity to conduct an independent interdisciplinary study under the supervision of a faculty member of the Department of Computer Science. Student will choose a community issue or concern that is of interest to her/him, conduct systematic study, apply knowledge and skills that s/he has gained from the major study and other disciplines, and provide an innovative solution to address the issue. The study aims to allow students to think beyond their field of expertise, make connections between their learning and real-world issues, and deepen their analytic and creative skills. All these are competences that students will need in the complexity of the contemporary world and workplace as responsible and responsive global citizens.

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Upon the consent of the supervisor, the project can take the form of individual or

group project. Student should refer to the department's GE Capstone Interdisciplinary Independent Study Handbook for details.

Teaching and Learning Activities (TLAs):

CILOs	Type of TLA
1-4	Students will engage in a highly independent problem-solving activity under the supervision of a faculty member.

Assessment:

No.	Assessment Methods	Weighting	CILOs to be addressed	Description of Assessment Tasks
1	Project Proposal	20%	1	Student/students in group should submit a project proposal to the supervisor by the 4th week of the semester. In case it is a group project, the group is responsible for the overall quality of the proposal while individual students will be assessed on their understanding of proposal and involvement in the proposal preparation. A copy of the approved project proposal will be submitted to the GE Office for record.
2	Progress log-book (Individual)	20%	1,2,4	Student should keep a log-book to track the progress of the study. This includes but not limited to details of meetings with the supervisor, engagement with the community, self- study and exploration on the topic. Student should agree with the supervisor on the format and content of the log-book.
3	Final Report	40%	1,2,3,4	Student/students in group should submit an in-depth, interdisciplinary, and systematic report at the end of the study. In case it is a group project, the group is responsible for the overall quality of the report while individual students will be assessed on their understanding of report and involvement in the report preparation.
4	Oral Presentation/Demonstration	20%	2,3,4	Student/students in group will conduct an oral presentation/demonstration of her/his/their project to share the project outcomes, and exchange views, with faculty members and students at the university. In case it is a group project, performance of individual students will be assessed.

Assessment Rubrics:

Excellent (A)

- Achieves the first five CILOs, with strong evidence of having achieved the last CILO, demonstrating a good mastery of both theoretical and practical aspects of the knowledge and skills associated with visual analytics and applications
- Able to develop and present sound arguments and correct solutions to problems, accompanied by in-depth analysis and insight

	• Demonstrates a thorough understanding and solid knowledge of visual analytics concepts, methodologies, and techniques • Able to draw on a variety of techniques and relevant knowledge and appropriately apply them to new visual analytics situations and problems
Good (B)	• Achieves the first five CILOs, with evidence of having achieved the last CILO, demonstrating a good understanding of the associated concepts and underlying methodologies • Able to develop solutions to problems, accompanied by adequate explanations • Demonstrates a competent level of knowledge of visual analytics concepts, methodologies, and techniques • Ability to make use of appropriate knowledge and techniques and apply them to familiar situations and problems
Satisfactory (C)	• Achieves most of the first five CILOs, demonstrating a basic level of understanding of the associated concepts and underlying methodologies • Able to provide acceptable solutions to problems • Demonstrates an adequate level of knowledge of visual analytics • Ability to make use of some knowledge and techniques and apply them to familiar situations
Marginal Pass (D)	• Achieves some of the first five CILOs, demonstrating a minimum level of understanding of the associated concepts and underlying methodologies • Able to provide marginally acceptable solutions to certain problems • Demonstrates a threshold level of knowledge of visual analytics • Ability to make use of limited knowledge or techniques and apply them to some simple cases
Fail (F)	• Achieves less than four of the CILOs, with little understanding of the associated concepts and underlying methodologies • Unable to provide solutions to simple problems • Knowledge of visual analytics falling below the basic minimum level • Unable to apply knowledge and techniques to situations or problems

Course Content and CILOs Mapping:

Content		**CILO No.**
I	Project	1-6

References:

- T. Hung, Handbook on Plagiarism, HKBU, 2011.
- C. Lipson, Doing Honest Work in College: How to Prepare Citations, Avoid Plagiarism, and Achieve Real Academic Success, second edition, Chicago Guides to Academic Life, 2008.
- Literature research appropriate to the topics under study

Course Content:

Topic

I. Project