Module title
Applied Software Engineering Project

Module code	**Level**	**ECTS credits**	**Duration**
tbd	Bachelor (B.Sc.)	5	5 weeks block course + virtual lectures

Module instructor	**Lecture type**	**Prerequisite(s)**	**Grading**
Richard Wong, Kwantlen Polytechnic University	Guided tutorial sessions (virtual and in-person)	Basic knowledge of software engineering, project management, databases, programming	Final project

Overview
This course intends to deepen students' understanding of the software development process through a project. It will give students the opportunity to integrate various topics they have learned in Year 1 and see how they all come together though a real project.
Students will design and develop an application in response to a real-world problem or need. The project requires students to demonstrate an integration of technical skill and knowledge, professional competencies and development/execution strategies drawn from work in other courses in the first year.

Learning objectives
- Develop system requests and conduct feasibility assessments
- Prepare project plans using standardized scheduling and planning approaches
- Analyse business processes to determine system requirements through various techniques
- Represent features of information systems graphically by generating and interpreting Data Flow diagrams, Entity-Relationship diagrams and other modelling techniques
- Demonstrate an understanding of user interface design principles
- Design and implement a system
- Offer and accept constructive feedback on technical/professional documents and presentations
- Convey technical information and knowledge to a variety of audiences both verbally and in writing
- Write and speak in a professional manner employing principles of conciseness, readability, clarity, accuracy and organization
- Assess and recommend the best deployment strategy
- Collaborate effectively with other members of a project team

Assignment and grading
In teams, students will apply the course material to a real-world business problem or opportunity. Student will create a systems analysis report for their project, build a prototype interface, and develop/present a working model. Project teams will be required to submit a weekly progress report to highlight their progress, issues/risks, and challenges.

Course schedule
This is a tentative schedule of topics and is subject to change. Students will be notified of changes either during class lectures, by posting(s) on course website or via email.

Week	Week of	Topic
1	Mar-23	Building information systems; Project initiation, Feasibility analysis; Systems development methodologies - Structured & Agile; Project management methodologies
2	Mar-30	Analyzing business needs; Gathering requirements; Process modeling with use cases; Process modeling with data flow diagrams (DFDs)
3	Apr-6	Data modeling with entity -relationship diagrams (ERDs); Advanced data modeling with ERDs
	Apr-9 to 14	Easter Holidays – no classes
4	Apr-13	Design and Acquisition Strategies; IT Architectures; Interface Design
5	Apr-20	Construction; Implementation
Until semester end	n/a	Students work on their projects. Supervision on demand from abroad by instructor.
	End June	Submission of final project

Note: this is not the official course descriptor according to the "Studien- und Prüfungsordnung" (SPO)