

Multi-disciplinary experience:

Learning objective: The course will provide a forum for a project or projects that require a multi-disciplinary approach, it will be sufficiently complex so that the solution requires the input of multiple disciplines.

Examples of what students will learn:

- To interact and collaborate with students, faculty, or professionals from other disciplines
- What value their discipline adds to complex problem solving
- How to integrate diverse skills and approaches to solve a complex problem
- How to acquire new knowledge and skill/s they need to complete the project
- How their discipline's professional standards of ethics work with and compliment the professional standards of other disciplines

Communication:

Learning objective: The course will provide a forum for a project or projects that require students communicate relevant technical, non-technical, and ethical aspects of a project to key stakeholders.

Examples of what students will learn:

- How to discuss ideas and concepts across disciplines
- How to develop communication strategies for being an effective team member
- How to interact with outside experts and stakeholders
- How to conduct both formal and informal, written and oral, material that communicates the process and outcome of a complex project

Open ended problem solving:

Learning objective: The course will provide a forum for a project or projects that have no obvious answer and requires the students to employ a rigorous and contextually relevant process from problem definition to validation of recommendations. This should include, when appropriate, consideration of the greater impact on the community and society.

Examples of what students will learn:

- How to integrate multiple research methods for discovery and problem framing
- How to generate a range of desirable, viable, and feasible solutions for the problem space
- How to develop and test pilots or prototypes of proposed solutions
- How to select and employ contemporary and appropriate problem solving methodologies
- How to address the risks and ethical issues associated with new ideas

Teamwork:

Learning objective: The course will provide a forum for a project or projects that require students to work on a project-based team that delivers a desired and planned outcome which incorporate time and resource constraints.

Examples of what students will learn:

- How to identify, manage plan and execute effective teamwork
- The roles requires on a successful team
- How to identify team issues and how to improve team performance
- How to interact ethically and responsibly in a team setting