

## Policy Statement on Experiential Learning Courses (first draft)

*(Mathematics in the Real World I–III)*

### 1. Purpose

The experiential learning courses *Mathematics in the Real World I, II, and III* are designed to enable students to engage with the applications of mathematics in professional, industrial, and research contexts. These courses shall be undertaken during the summer semesters.

### 2. Learning Outcomes

Eligible activities must demonstrate educational attainment consistent with the intended outcomes of the experiential learning sequence, including but not limited to:

- application of mathematical concepts to real-world questions.
- development of analytical and problem-solving competencies.
- engagement with interdisciplinary or professional contexts.
- communication of mathematical reasoning and findings.

### 3. Eligible Credit-Bearing Activities

Credits may be earned through one or more of the following supervised activities (one activity in one semester):

- i). **Internships** in relevant academic, industrial, governmental, or research organizations involving mathematical analysis, modelling, computation, or data-driven inquiry.
- ii). **Faculty-Guided Research or Applied Projects** involving theoretical investigation, applied modelling, numerical experimentation, statistical analysis, or interdisciplinary problem-solving.
- iii). **Mathematical Consulting or Problem-Solving Assignments** undertaken individually or in student groups for internal or external stakeholders.
- iv). **Interdisciplinary Fieldwork** in which mathematical or statistical methods constitute a substantive component of the inquiry process.
- v). **Mini-Capstone Projects** proposed by faculty or institutes that require the synthesis and application of mathematical tools to real-world contexts.

vi). **Participation in Mathematical or Modelling Competitions** recognized by the Department, provided such participation includes submission of a technical note and supporting documentation.

#### **4. Assessment and Deliverables**

Credits shall be awarded on the basis of:

- submission of required deliverables (e.g., reports, presentations, technical notes);
- verification of participation or completion from external organizations where applicable; and
- faculty evaluation of learning outcomes.

#### **5. Compliance**

Evaluations and credit determinations shall be governed by this policy and subject to review by the Departmental Undergraduate Committee.