

CS344-30 Discrete Mathematics Project

22/23

Department

Computer Science

Level

Undergraduate Level 3

Module leader

Greg Watson

Credit value

30

Module duration

22 weeks

Assessment

Multiple

Study location

University of Warwick main campus, Coventry

Description

Introductory description

The 3rd year project is an extended, individual piece of work which forms a core element of the Discrete Mathematics degree. Students choose a topic and find a supervisor in the summer term of their 2nd year.

This module is not available to students from other departments.

Module aims

To provide experience of undertaking a significant individual research or development exercise from conception through to design, execution and delivery.

Outline syllabus

This is an indicative module outline only to give an indication of the sort of topics that may be covered. Actual sessions held may differ.

Students select a project during Term 3 of the second year by submitting an outline of the proposed project and finding an academic member of staff to supervise it. A detailed project

specification is submitted during the first term. A written progress report on the current state of the project is submitted later in the first term for 5% credit (combined with the specification). A presentation of the final results of the project is given to the assessors during the second term for 15% credit. A detailed written report of the project is submitted early in the third term for 80% credit. The project is not a taught module but a major design and development exercise for the student carried out under supervision.

Learning outcomes

By the end of the module, students should be able to:

- - Plan and manage a significant individual project, including detailed considerations of resources, timetabling and professional issues
- - Build a substantial software system from design to documentation, or carry out a substantial research project from methodology to conclusions
- - Present their work orally, with appropriate uses of audio-visual aids and interactive demonstrations, and respond to questions effectively
- - Produce substantial technical report and reflective writing

Indicative reading list

Please see Talis Aspire link for most up to date list.

[View reading list on Talis Aspire](#)

Research element

The entire project is based around undertaking a significant research exercise from conception through to design, execution and delivery

Subject specific skills

The individual project involves consolidating, combining and applying a wide variety of subject specific skills gained in the rest of the degree course so far.

Transferable skills

Technical - Technological competence and staying current with knowledge

Communication - Verbal, listening, writing, technical communication skills, using different medium for communicating

Critical Thinking - Problem-solving, analysis of possible solutions etc

Multitasking - Soft skills such as time management, organization skills etc

Creativity - Ability to harness creative ideas and turn them into tangible and strategic products/solutions

Study

Study time

Type	Required
Lectures	5 sessions of 1 hour (2%)
Project supervision	20 sessions of 30 minutes (3%)
Private study	285 hours (95%)
Total	300 hours

Private study description

Private study and independent learning in this module includes:

- Research into the subject area of the project, and into available existing solutions.
- Planning and managing own work.
- Preparing for and learning from supervision meetings.
- Designing, solving, programming, testing and evaluating own software artefacts or research work.
- Preparation of the written reports and the oral presentation.
- Reflecting on feedback received on the progress report and the oral presentation.

Costs

No further costs have been identified for this module.

Assessment

You do not need to pass all assessment components to pass the module.

Students can register for this module without taking any assessment.

Assessment group A4

	Weighting	Study time
Progress Report	5%	
Progress report on project totalling 2000 - 3000 words maximum		
Oral Presentation	15%	
Duration- 30 minutes		
Final Report	80%	
Final project report totalling 12000 - 18000 words maximum. This assignment is worth more than 3 CATS and is not, therefore, eligible for self-certification.		

Assessment group R2

	Weighting	Study time
Final Report	100%	
Final project report totalling 12000 - 18000 words maximum. This assignment is worth more than 3 CATS and is not, therefore, eligible for self-certification.		

Feedback on assessment

Written Specification: Oral feedback from supervisor within 2 weeks of submission.

Written Progress Report: Feedback via Tabula within 20 university working days.

Oral Presentation: Feedback via Tabula within 20 university working days.

Availability

Pre-requisites

This module is not available to students from other departments.

Courses

This module is Core for:

- UCSA-G4G1 Undergraduate Discrete Mathematics
 - Year 3 of G4G1 Discrete Mathematics
 - Year 3 of G4G1 Discrete Mathematics
- Year 3 of UCSA-G4G3 Undergraduate Discrete Mathematics
- Year 4 of UCSA-G4G4 Undergraduate Discrete Mathematics (with Intercalated Year)
- Year 4 of UCSA-G4G2 Undergraduate Discrete Mathematics with Intercalated Year