

# CS344-30 Discrete Mathematics Project

**23/24**

**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

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## 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

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## **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.

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## 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 A5

	Weighting	Study time
Progress Report	5%	
Progress report on project totalling 2000 - 3000 words maximum.		
Oral Presentation	15%	
Duration - 25 minutes.		
Final Report	80%	
Final report on project totalling 12000 - 18000 words maximum.		

## Assessment group R3

	Weighting	Study time
Final Report	100%	
Final project report totalling 12000 - 18000 words maximum.		

## Feedback on assessment

Written Specification: Oral feedback from supervisor within 2 weeks of submission. Progress Report: Feedback via Tabula within 20 university working days. Oral Presentation: Feedback via Tabula within 20 university working days.

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## 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