

# **MODULE HANDBOOK**

COMP1800 Data Visualisation 2023-2024



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## 1 Welcome message from your Module Leader

Welcome to COMP1800 Data Visualisation, a term 2, postgraduate course which aims to prepare students to work in the area of data visualisation by introducing them to the relevant technologies and principles of visualisation in decision making and knowledge discovery.

The Moodle page for the module has all the up-to-date information and teaching materials for the module https://moodlecurrent.gre.ac.uk/course/view.php?id=92380

This handbook provides essential information about this module including the aims and learning outcomes, the schedule of teaching and learning activities, assessment tasks, resource recommendations and, if applicable, any additional resources that you will need. Please read it at the start of term so you are aware of key details and important dates.

## 2. Key contacts (academic queries)

Please see Moodle for contact details of the module leader.

## 3. Module details and learning outcomes

Host Faculty: Faculty of Engineering & Science

Host School: Computing & Mathematical Sciences

Number of Credits: 15

Term(s) of delivery: 2

Site(s) of delivery: Greenwich Maritime Campus

Pre-requisite/Co-requisite modules: Not applicable

#### Aims:

This module aims to prepare students to work in the area of data visualisation by introducing them to the relevant technologies and principles of visualisation in data exploration. This module will equip students with the skills required to identify and analyse trends and patterns in datasets using visual representations. The module also will introduce students to the concepts of visual analytics using machine learning, in particular for data-intensive applications.

#### **Learning Outcomes:**

- 1. Identify and discuss fundamental concepts related to visualisation.
- 2. Demonstrate an understanding of different types of data visualisation and identify appropriate types of visualisation for various types of data.
- 3. Design, implement and evaluate interactive visualisation systems.
- 4. Apply visualisation tools and techniques to obtain insight from datasets.



#### Glossary:

- A pre-requisite module is one that must have been completed successfully before taking this module.
- A co-requisite module is one that must be taken alongside this module.
- A learning outcome is a subject-specific statement that defines the learning to be achieved through completing this module.

## 4. Employability

This level 7 course includes a number of employability skills that you will find useful when you embark on your career:

- Cognitive skills problem solving & reflection
- Technical ability useful practical visualisation skills

You can find out more about the Greenwich Employability Passport at: Greenwich Employability Passport for students.

Information about the Career Centre is available at: Employability and Careers | University of Greenwich.

You can also use LinkedIn Learning to gain access to thousands of expert-led courses to support your ongoing personal development. More information can be found at: <u>LinkedIn learning | IT and library services</u>

## 5. Schedule of teaching and learning activities

Each week the learning and teaching activities comprise a 1-hour lecture, followed by a 2-hour lab / tutorial. See Moodle for more details.

UoG Week	Date	Activity
Week 19	18 <sup>th</sup> January	Introduction
Week 20	25 <sup>th</sup> January	Proportion
Week 21	1 <sup>st</sup> February	Time
Week 22	8 <sup>th</sup> February	Correlation
Week 23	15 <sup>th</sup> February	Distribution
Week 24	22 <sup>nd</sup> February	Dimension
Week 25	26 <sup>th</sup> February – 1 <sup>st</sup> March	SKILLS WEEK – no lecture
Week 26	7 <sup>th</sup> March	Interaction
Week 27	14 <sup>th</sup> March	Coursework workshop
Week 28	21 <sup>st</sup> March	Dashboards
Week 29	28 <sup>th</sup> March	Clustering
Week 30	4 <sup>th</sup> April	Reduction



#### 6. Assessment

Assessment schedule:

Assessments	Date	Weighting*	Maximum	Marking type	Learning
			length		outcomes
Coursework	2 <sup>nd</sup> April 2024	100%	8 visualisations	Numerical	1, 2, 3, 4
			+ report & code		

<sup>\*</sup>The weighting refers to the proportion of the overall module result that each assessment task accounts for.

#### Marking, feedback and next steps

To pass this module, you must achieve an overall mark of 50+.

If you do not pass a module at the first attempt, you will likely be eligible for a resit opportunity on the failed assessments. The Progression and Award Board (PAB) will decide whether you will be offered an opportunity to resit. Note that marks on resit assessments are capped at 50% unless extenuation has been applied for and granted.

For further details on resit assessments, please see section on Resit assessments below.

The assessment and feedback policy can be accessed at Assessment and Feedback Policy.

## Academic skills support

In addition to the teaching and learning activities within the module, additional academic skills support, guidance, and resources are available at the following links:

Academic and Digital Skills support - <a href="https://www.gre.ac.uk/academicskills">https://www.gre.ac.uk/academicskills</a>

Academic Integrity - https://libguides.gre.ac.uk/courses/integrity

Guidance on use of AI - https://docs.gre.ac.uk/rep/information-and-library-services/ai-guidance

The IT handbook for new students - <a href="https://docs.gre.ac.uk/rep/information-and-library-services/student-booklet">https://docs.gre.ac.uk/rep/information-and-library-services/student-booklet</a>

Strong academic skills will help you to act with academic integrity, honesty, and trust. These are the values on which academic achievement at the University of Greenwich is based. As a student, you are expected to take responsibility for the integrity of your own work, including asking for clarification where necessary. Any improper activity or behaviour which may give you an academic advantage in assessment is considered to be assessment misconduct. Allegations of assessment misconduct will be considered under the University's



Assessment Misconduct Procedure and may result in a penalty being imposed. More information about this procedure can be found at <u>Assessment Misconduct Procedure</u>.

#### **Extenuating circumstances**

The University recognises there are times when matters that are unexpected and beyond a student's control will impact on their performance and ability to complete assessments within the specified timeframe. Examples include unforeseen illness, a death in the family, or injury. Guidance on submitting an extenuation claim can be found at: Extenuating circumstances.

If you have a disability, specific learning difficulty, for example dyslexia, a long-term medical condition or a mental health condition which might affect your studies and assessments, and you have not already done so, then we advise that you seek support from the Student Wellbeing Service by contacting <a href="mailto:wellbeing@gre.ac.uk">wellbeing@gre.ac.uk</a> in the first instance

## **Student Support**

The University offers a range of support services including health and medical services, a chaplaincy, disability and dyslexia support, and mental health & wellbeing support. Support can be accessed at <a href="Student Support">Student Support</a> | Support and Wellbeing.

#### **External Examiner**

The External Examiner for this module is:

Name: Dr David Nelson

Please note that the role of the External Examiner is to evaluate the overall standard of assessments on the module. They are unable to correspond with individual students about their work. If you need to discuss your marks or feedback, please contact the module leader.

#### 7. Resit assessments

Assessment schedule:

Resit assessments	Date	Weighting out of 100%*	Maximum length	Marking type	Learning outcomes mapped to this assessment.
Resit Coursework	12 <sup>th</sup> July	100%	8 visualisations	Numerical	1, 2, 3, 4
	2024		+ report & code		

For help and support with your resit coursework, please contact the module leader, Chris Walshaw, if required.



## 8. Resource recommendations

The following are suggested readings for the module. Additional, more detailed reading recommendations will be provided for the module topics.

You can check availability of the resources by using the search tool LibrarySearch at <a href="https://librarysearch.gre.ac.uk">https://librarysearch.gre.ac.uk</a>.

Author	Title	Publisher	ISBN
Dobler &	Data Visualization with Python	Packt	9781789956467
Grossmann			
Kirk	Data Visualisation	Sage	9781526468925

There are also many online resources. Particularly recommended are some of those on towardsdatascience.com – however, you have to be selective.

## 9. Additional module information

Not applicable.

## 10. Digital Student Centre (non-academic queries)

Our new <u>Digital Student Centre</u> is your space to find answers 24/7 to your questions about student life, helping you get the support you need when you need it. AskUoG provides you with hundreds of up-to-date articles covering topics such as student engagement, student finance, academic and personal conduct, accommodation, visa and international student advice, disability, mental health and wellbeing support.

You can also download important documents like bank, student status and council tax letters by visiting My Documents on the Digital Student Centre (eligibility criteria apply).

If you can't find the right answer or need more personalised support for your query, you can create an enquiry and our specialist teams will respond swiftly. You will be able to track your requests and check the status of your enquiries in real time.

For academic queries, always contact the staff who work with you on your academic programme - your programme leader, module leader or personal tutor.



## 11. Changes to the module

At the University of Greenwich, we value feedback from students as well as External Examiners and other stakeholders and we use this information to help us improve our provision.

For example, on this module we have introduced tutorial demonstration videos following student feedback.

Important note: The University of Greenwich will do all that it reasonably can to deliver the module and support your learning as specified in our handbooks and other information provided. However, under some circumstances, changes may have to be made. This may include modifications to the:

- content and syllabus of modules, including in relation to placements
- timetable, location and number of classes
- content or method of delivery of your module
- timing and method of assessments.

This might be because of, for example:

- academic changes within subject areas
- the unanticipated departure or absence of members of university staff
- where the numbers expected on a module are so low that it is not possible to deliver an appropriate quality of education for students enrolled on it
- industrial action by university staff or third parties
- the acts of any government or local authority
- acts of terrorism.

In these circumstances, the university will take all reasonable steps to minimise disruption by making reasonable modifications. However, to the full extent that it is possible under the general law, the university excludes liability for any loss and/or damage suffered by any applicant or student due to these circumstances.