

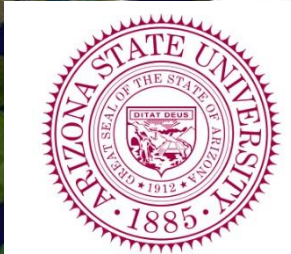
美国和英国的GIS教学

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University of Glasgow, UK



Where have I been ...



Areas of Interest

```
graph TD; A[Areas of Interest] --> B[Spatial Analysis & Modeling]; A --> C[Substantive Applications]; A --> D[Development of Software tools]; C --> E[Health]; C --> F[Land use]; C --> G[Housing]; C --> H[Urban growth]; C --> I[Transportation];
```

**Spatial Analysis
& Modeling**

**Substantive
Applications**

**Development of
Software tools**

Health

Land
use

Housing

Urban
growth

Transportation

Outline

1. Program design
2. Course design
 - Course delivery
 - Course assessment
3. Communication with students

1 Program Design

- Very important for open-day
- First two years: fundamental courses & other subjects
- 3rd & 4th years: both core and optional courses
 - Research methods course
- Some courses are for both UG and PG students.
- You can find all course information from [COURSE CATALOGUE](#)

UCSB: Geography

<https://my.sa.ucsb.edu/catalog/Current/CollegesDepartments/Is-intro/geog.aspx?DeptTab=Undergraduate>

Undergraduate Program

[Bachelor of Arts—Geography \(Requirements - PDF\)](#)

[Bachelor of Arts—Geography—Geographic Information Science Emphasis \(Requirements - PDF\)](#)

[Bachelor of Science—Physical Geography \(Requirements - PDF\)](#)

[Bachelor of Science—Physical Geography—Ocean Science Emphasis \(Requirements - PDF\)](#)

Minor—Spatial Studies

The Geography department offers a Minor in Spatial Studies. There are three tracks students can choose from. The diploma and transcript will indicate the Minor in Spatial Studies.

[Spatial Studies Minor—Space and Place Focus \(Requirements - PDF\)](#)

[Spatial Studies Minor—Spatial Science Focus \(Requirements - PDF\)](#)

[Spatial Studies Minor—Spatial Thinking Focus \(Requirements - PDF\)](#)

UCSB: Geography-GIScience emphasis

- See attached file

UCSB - Courses

- <https://my.sa.ucsb.edu/catalog/Current/CollegesDepartments/Is-intro/geog.aspx?DeptTab=Courses>
- See attached file

UCL - four specialist Programmes

- <https://www.geog.ucl.ac.uk/study/undergraduate>



BA/BSc Geography



BSc Geography and Economics



BA/BSc Geography International



BA Human Geography with Quantitative Methods

UCL - BA Human Geography with Quantitative Methods

- The BA Geography with Quantitative Methods is an interdisciplinary Programme with modules taught by experts from the [Department of Geography](#) in collaboration with experts in [Political Science, Social Science and Epidemiology](#). You will graduate with an understanding of social statistics as well as the methods required for the mapping and analysis of geographic data. Students enrolled on this stream undertake many of the same modules as those on BA Geography. However, they also benefit from four core research methods modules taught across four world-leading departments to deliver the high-level technical and research skills that the programme specialises in.
- [In the first year, you will learn the key principles of social inquiry and be introduced to quantitative research methods. In the second year more advanced data analysis techniques will be taught as well as approaches to geographic research](#) in preparation for the third year dissertation project. You will also benefit in modules in [geocomputation](#) and [spatial data science](#) as well as a number of optional modules delivered from within and outside the department.
- Finally, [in the third year, you will devote time to a substantive dissertation project](#), supported by modules in quantitative policy analysis, population geography, economic geography and a choice of optional modules.

COURSE CATALOGUE

Course Catalogue

→ [Browse by School](#)

→ [Browse by Subject Area](#)

→ [Search](#)

WELCOME TO THE COURSE CATALOGUE 2018-2019

The Course Catalogue allows you to find the individual courses which make up our degree programmes. All our Undergraduate and Postgraduate taught courses are included.

You can [Browse by Subject Area](#), [Browse by School](#) or [Search](#) by specific criteria.

Please note that not all courses are available to all students. If you are unsure whether or not you can register for a particular course, you should contact the school responsible for teaching the course.

Courses may be restricted to students on particular degree programmes. [Browse the degree programmes to which the courses contribute.](#)

Some courses may not be taught in every session. Check with the school or check the MyCampus scheduled classes to confirm whether a particular course is taught in academic session 2018-2019.

While care has been taken to ensure the accuracy of this Catalogue, courses may be changed subsequently. Up-to-date information may be obtained on enquiry to the School responsible for teaching the course.

Course

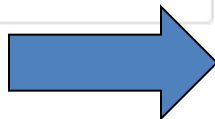
GIS

Enter key word(s) or a course code to search course titles and codes.

In school

School of Geographical and Earth Sciences ▼

Select a University school to list the school's courses.

**In subject**

Geography ▼

Select a subject to list all related courses.

Level

Any ▼

SEARCH RESULTS

view all 4 courses for 2018-2019 in [print friendly format](#)

Page 1 of 1 of 4 courses.

- [Applied GIS GEOG5102](#)
- [GIS A:Applied Spatial Analysis GEOG4111](#)
- [GIS B:Theory & Practice GEOG4112](#)
- [Principles of GIS GEOG5019](#)

PRINCIPLES OF GIS GEOG5019

- Academic Session:** 2018–19
- School:** School of Geographical and Earth Sciences
- Credits:** 10
- Level:** Level 5 (SCQF level 11)
- Typically Offered:** Semester 1
- Available to Visiting Students:** Yes
- Available to Erasmus Students:** Yes

Short Description

An introduction to the principles and practice of Geographic Information Systems.

Timetable

Generally, all classes are on one day of the week during the first ½ of Semester 1, normally Fridays. If numbers are large a practical session may be run on a different day.

Requirements of Entry

none

Excluded Courses

GEOG4062 Geographical Information Systems

Assessment

Continuous assessment consisting of a GIS practical task and report (40%); a 1½ hour examination in December (60%)

Main Assessment In: December

Course Aims

The course's combination of lectures and practicals will give participants the knowledge of the analytical and databasing concepts which will contribute to the specification of the design of a GIS, its implementation and appropriate use; and to develop an awareness of graphical methods of exploring and representing geospatial information in a typical GIS environment.

Teaching aims:

- To describe the principles of geographic information systems (GIS)
- To explain vector data structures and concepts, including point, line and polygon entities, attributes and topology
- To explain raster data structures and concepts
- To introduce several well-known GIS analytical tools
- To introduce several applications of GIS
- To explain how to design an efficient

Intended Learning Outcomes of Course

Having completed this course, students will be able to:

- Explain the principles of GIS as a combination of geospatial data input, processing, output and personnel subsystems;
- explain the requirements for co-ordinate reference systems in GIS and apply them within a GIS;
- describe and critically assess the use of vector and raster representations of real world objects and how to convert between them;
- describe and critically assess the use of analytical tools within GIS including overlay, buffer, network, and terrain analysis and how they are applied in the ArcGIS (or equivalent) environment;
- explain the nature of geospatial databases and discuss their design and implementation;
- solve application problems in GIS, including access to on-line help

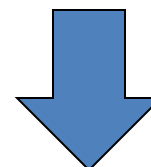
Course Catalogue

→ Browse by School

➔ Browse by Subject Area

→ Search

- Film and Television Studies
- French
- Gaelic
- **Geography**
- German
- Greek



COURSE CATALOGUE

Course Catalogue

Course List

→ Browse by School

→ Browse by Subject Area

→ Search

COURSES IN GEOGRAPHY FOR 2018-2019

View all courses in print friendly format

Level 1 (SCQF level 7) | Level 2 (SCQF level 8) | Level 3 (SCQF level 9) | Level 4 (SCQF level 10) | Level 5 (SCQF level 11) |

Level 1 (SCQF level 7)

- GEOGRAPHY 1: LIVING IN A CHANGING WORLD GEOG1001
- GEOGRAPHY 1: LIVING IN A CHANGING WORLD (HALF COURSE) GEOG1007

Level 2 (SCQF level 8)

- GEOGRAPHY 2 GEOG2001
- GEOGRAPHY 2 (HALF COURSE) GEOG2018
- GEOGRAPHY 2 RESIDENTIAL FIELD CLASS GEOG2015

2 Course Design

- Course handbook/Syllabus
 - Course Description
 - Prerequisites
 - Assessment/Grading
 - Organization
 - Software
 - Readings

Examples

- Course 1: Spatial Regression Analysis
- Course 2: Geographic Information Analysis (ASU)
- Course 3: Geographic Information Analysis (PSU)
- Course 4: Geographic Information Systems and Science (Oregon State University)

Course Delivery

- Lectures (1-1.5 hours)
- Labs (Practical sessions) (1-1.5 hours)

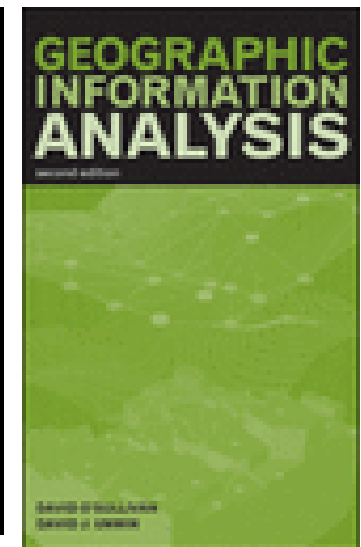
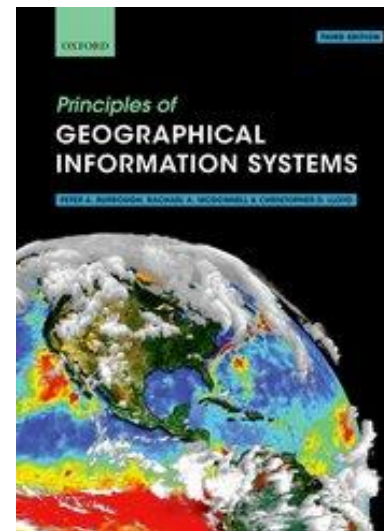
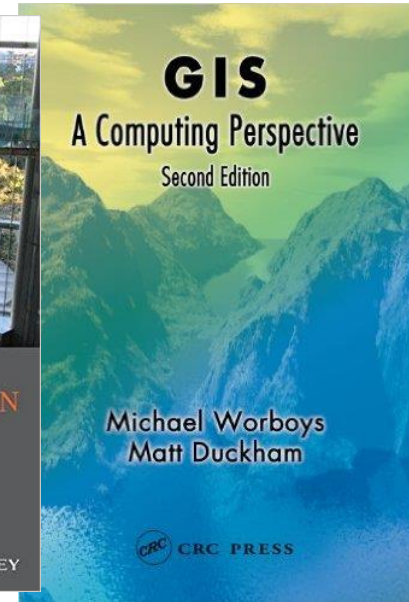
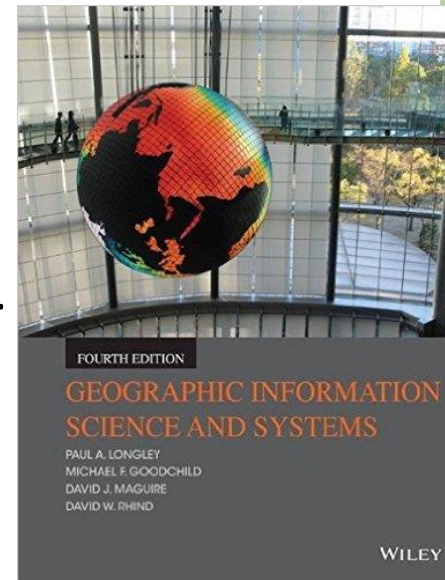
Course Assessment

- Essay
- Written exam
- Research project (individual & group)
 - Oral presentation
 - Project report

Textbooks

Lectures

- Longley, P.A., Goodchild, M.F., Maguire, D.J. and Rhind, D.W., 2015. *Geographic Information Science and Systems*. John Wiley & Sons Ltd. (older editions available)
- Burrough, P.A., McDonnell, R.A., McDonnell, R. and Lloyd, C.D., 2015. *Principles of geographical information systems*. Oxford University Press.
- Worboys, M.F. and Duckham, M., 2004. *GIS: a computing perspective*. CRC press.
- O'Sullivan, D. and Unwin, D. J., 2010, *Geographic Information Analysis*, 2nd edition (Wiley, Hoboken, NJ). ISBN 978-0470288573

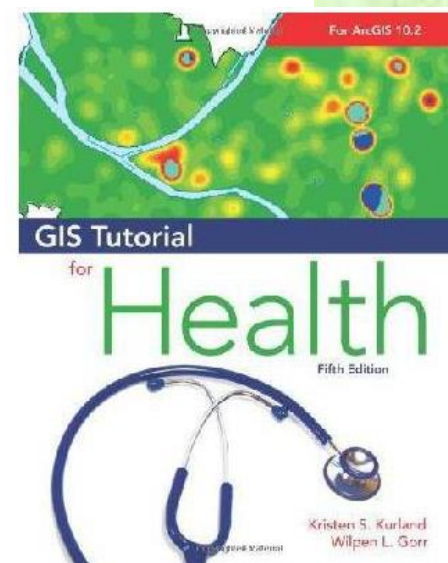
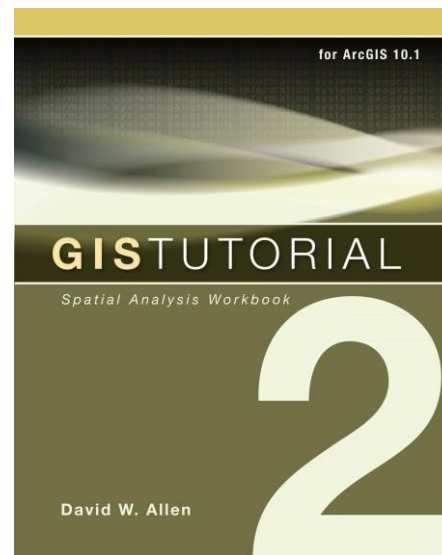
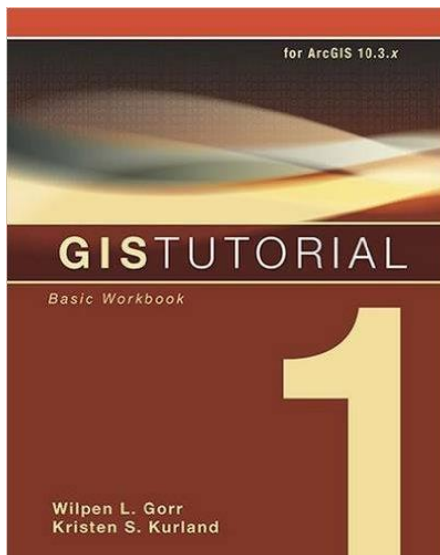
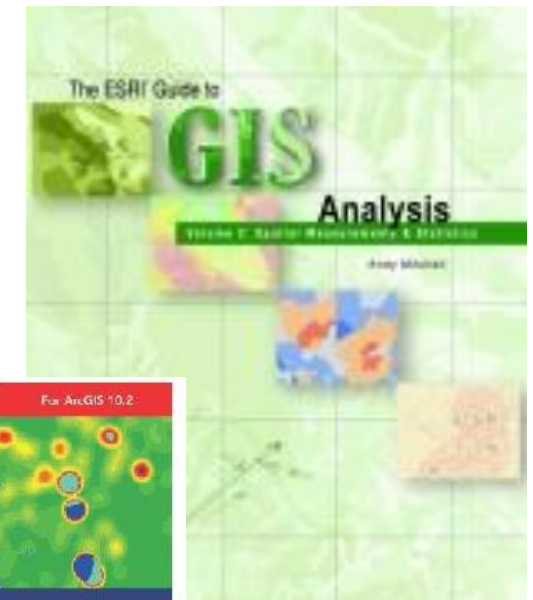
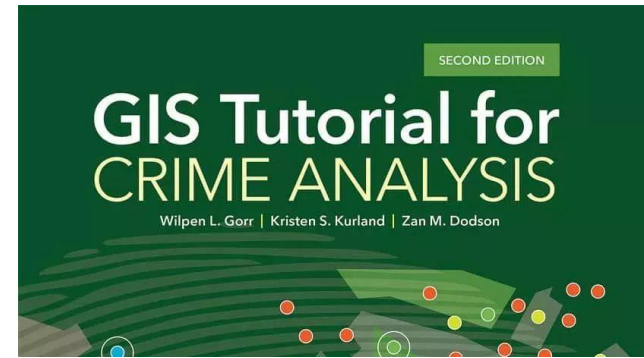


Best-selling textbooks have been written by staff at the UCL Department of Geography



Textbooks

- Practical sessions
 - Gorr, W.L. and Kurland, K.S., 2016. *GIS tutorial 1: Basic workbook*. ESRI Press.
 - Allen, D. W. (2016). *GIS tutorial 2: Spatial analysis workbook*. ESRI Press.



☐ GIS Education and Training

Esri ArcGIS Desktop Associate Certification Study Guide

Getting to Know ArcGIS Desktop

GIS Tutorial 1

GIS Tutorial 1 for ArcGIS Pro

GIS Tutorial 2

GIS Tutorial for Crime Analysis, second edition

GIS Tutorial for Health, fifth edition

Instructional Guide for The ArcGIS Book

Land Administration for Sustainable Development

The GIS 20

Think Globally, Act Regionally

Understanding GIS, fourth edition

Understanding GIS: An ArcGIS Project Workbook, Second Edition

3 Communication with students

- Online blackboard/Moodle
 - Lecture slides
 - Data for labs
 - Course materials
 - Q & A forum
- Email
- Office hours
- By appointment

Moodle@University of Glasgow

University of Glasgow

Search Moodle

Q Search

Jing Yao

Customise this page

Course overview

Timeline Courses

In progress Future Past

Urban Studies 2017

College Exchange Coordinators

Calendar

July 2019

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

Upcoming events

Show Accessibility Tools



Principles and Application of GIS 2018/19

Dashboard › My courses › College of Social Sciences › Schools › School of Social & Political Sciences › Postgraduate › Urban Studies › Principles and Application of GIS 2018/19

Principles and Application of GIS 2018/19

Participants

Badges

Grades


Principles and Application of GIS 2018/19

General Information

Summative Assessment

Lecture Slides


Principles and Application of GIS 2018/19

 [Announcements](#)

 [Q & A for the course](#)

Search forums

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Latest announcements

[Add a new topic...](#)
9 Jan, 13:32
David Donaldson
[Essay Feedback Available](#)
26 Nov, 10:16
David Donaldson
[Urkund](#)
21 Nov, 08:59

General Information

Welcome to Principles and Applications of GIS!

You can find the course Information in the course handbook.

 [P&A of GIS course handbook 2018](#)

Practical Sessions

Summative Assessment

Essay

only required for 20-credit course
1500 words

Due: 29th Oct, 2018

Project report

required for both 10- and 20-credit courses
3000 words


Due: 26th Nov, 2018

 [Submit your project report here](#)

 [Principles and Applications of GIS \(Part 1\) URKUND Final](#)

 [Principles and Applications of GIS \(Part 1\) URKUND Draft](#)

 [Principles of Applications of GIS \(Part 2\) URKUND Final](#)

 [Principles of Applications of GIS \(Part 2\) URKUND Draft](#)

For the practical sessions, we will use the following GIS workbook published by ESRI (except for weeks 6 & 8):

GIS Tutorial 1: Basic Workbook, 10.3.x edition

by Wilpen L. Gorr, Kristen S. Kurland

Paperback: 462 pages

Published: 2016

ISBN: 9781589484566

The first chapter can be downloaded from [here](#).

You can download the data for completing the tutorials and exercises included in the book from this [webpage](#) (from where you also can download a 180-day trial of ArcGIS), or from this [link](#) directly. You need to run the downloaded setup.exe file to install the data to your own computer. Please copy the data to your own flash/hard drive and bring it to the class every week.

Lecture Slides

 [Lecture 1](#)

 [Lecture 2](#)

 [Lecture 3](#)

 [Lecture 4](#)

 [Lecture 5](#)

Q & A for the course

Please post your questions regarding lectures, tutorials and projects here!

Add a new discussion topic

Discussion	Started by	Replies	Last post
Google Earth	 Jad Baalbaki	0	Jad Baalbaki  Tue, 20 Nov 2018, 8:47 PM
Literature review	 Xiao Jin	0	Xiao Jin  Mon, 19 Nov 2018, 12:03 PM
Data Links Sharing	 Xiaoyu Zhang	0	Xiaoyu Zhang  Thu, 11 Oct 2018, 5:01 PM
Questions about the course project	 Jing Yao	0	Jing Yao  Sat, 22 Sep 2018, 1:19 PM
Questions about the practical sessions	 Jing Yao	0	Jing Yao  Sat, 22 Sep 2018, 1:18 PM



Urban
Big
Data
Centre



SHLC
Centre for Sustainable,
Healthy and Learning Cities
and Neighbourhoods



University
of Glasgow

The End & Thank You!

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