

MODULE DESCRIPTION FORM



DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING

CL952 Aquifer Mechanics

Module Registrar: Neil Burnside	Taught To (Course): MSc Hydrogeology		
Other Lecturers Involved:	Credit Weighting: 10	Semester: 2 (on campus / DL) & 3 (DL only)	
Assumed Prerequisites: CL935 Hydrogeology	Compulsory for MSc Hydrogeology; can be optional for other PGT	Academic Level: 5	Suitable for Exchange: N

Module Format and Delivery (HOURS i.e. 1 credit = 10hrs of study):

Lecture	Tutorial	Laboratory	Groupwork	External	Online	Project	Assignments	Private Study	Total
18	6						40	36	100

Educational Aim

This module aims to provide the student with an understanding of:

- Hydrogeology and Subsurface Fluid Flow
- Well Hydraulics and Pumping Tests
- Real-world applications of Hydrogeology

Learning Outcomes

On completion of the module, the student is expected to be able to

LO1: The student will be able to synthesize key features about aquifer dynamics in order to create a comprehensive conceptual understanding

LO2: The student will be able to evaluate and determine groundwater aquifer properties through numerical analysis of well hydraulic data

LO3: The student will be able to identify practical challenges facing groundwater resource use and understand approaches on how to manage these

Syllabus

The module will teach the following:

Lectures will provide information on groundwater resources, aquifer properties, and well hydraulics

Tutorials and field work will be used to underpin practical understanding

Assessment of Learning Outcomes

Criteria

For each of the Module Learning Outcomes the following criteria will be used to make judgements on student learning:

Assessment of learning outcomes will be in the form of a well data analysis report (LO2 & LO3), a semester report that will demonstrate one's conceptual understanding of aquifer properties (LO1 & LO3), and a summative exam and continually assessed review quizzes throughout the semester (LO1, LO2 & LO3).

The standards set for each criterion per Module Learning Outcome to achieve a pass grade are indicated on the assessment sheet for all assessment.

Principles of Assessment and Feedback

(within Assessment and Feedback Policy at:

<https://www.strath.ac.uk/staff/policies/academic/http://www.strath.ac.uk/learnteach/informationforstaff/staff/assessfeedback/12principles/>)

Reports will receive informative evaluation and feedback within three weeks of submission, so = students work can be informed of their understanding and progress.

Assessment Method(s) Including Percentage Breakdown and Duration of Exams

	Examinations				Courseworks		Class quizzes	
	Number	Month(s)	Duration	Weighting	Number	Weighting	Number	Weighting
	1	May / Aug	2 hrs	40	2	50	10	10
L/Outcomes	See Assessment of Learning Outcomes							

Indicate which learning outcomes (L01, L02 etc) are to be assessed by exam/coursework/project as required.

Coursework / Submissions deadlines (academic weeks):

Conceptual report – Week 7

Field Data analysis report – Week 9

Resit Assessment Procedures:

Take-home examination in August diet / Resubmission of coursework(s) before commencement of the August exam diet.

PLEASE NOTE:

Students must gain a summative mark of 50% to pass the module. Students who fail the module at the first attempt will be re-examined during the August diet. This re-examination will consist entirely of coursework. No marks from any previous attempts will be transferred to a new resit attempt.

Recommended Reading

All textbooks and materials required for the module are available on MyPlace

Additional Student Feedback

(Please specify details of when additional feedback will be provided)

Date	Time	Room No

Session:

Approved:

Course Director Signature: Neil Burnside

Date of Last Modifications: 22/08/22

MODULE TIMETABLE

Module Code:

CL952

Module Title:

Aquifer Mechanics

Brief Description of Assessment:

10 weekly class quizzes (10%)
 2 class assignments: Conceptual Model (25%) and Field Data Analysis Report (25%)
 1 exam (40%)

Assessment Timing:-

Indicate on the table below the start/submission dates for each assignment/project and the timing of each exam/assessment using the dropdowns provided. Dropdowns can be left blank. Add extra notes below the dropdowns.

Please note: Timings can and will change, this should only be used as a guide.

Semester	C&D Wk	WK1	WK2	WK3	WK4	WK5	WK6	WK7	WK8	WK9	WK10	WK11	Exam Period
Two		Class Test Q1	Class Test Q2 Course work Set Assignment 1	Class Test Q3	Class Test Q4	Class Test Q5	Class Test Q6 Course work Submit Assignment 1 Course work Set Assignment 2	Class Test Q7	Class Test Q8	Class Test Q9	Class Test Q10 Course work Submit Assignment 2		Exam Online exam