

MSc Transport

This document provides a definitive record of the main features of the programme and the learning outcomes that a typical student may reasonably be expected to achieve and demonstrate if s/he takes full advantage of the learning opportunities provided. This programme specification is intended as a reference point for prospective students, current students, external examiners and academic and support staff involved in delivering the programme and enabling student development and achievement.

Programme Information			
Programme Title	Transport		
Award(s)	MSc		
Programme Code	H2UR (1YFT)	H2UR24 (2YPT)	H2UR36 (3YPT)
Associateship	Not applicable		
Awarding Institution(s)	Imperial College London	University College London (UCL)	
Teaching Institution(s)	Imperial College London	University College London (UCL)	
Faculty	Faculty of Engineering		
Department	Department of Civil and Environmental Engineering		
Main Location of Study	South Kensington Campus		
Mode and Period of Study	1 academic year, full-time or 2 or 3 academic years, part-time		
Cohort Entry Points	Annually in October		
Relevant QAA Benchmark Statement(s) and/or other external reference points	Master's Degrees in Engineering		
Total Credits	ECTS:	90	ECTS: 180
FHEQ Level	Level 7		
EHEA Level	2 nd cycle		
External Accreditor(s)	The Institution of Structural Engineers (IStructE) Accreditation received: 2002 Accreditation renewal: 2020 Institution of Civil Engineers (ICE) Accreditation received: 2002		

	Accreditation renewal: 2020 Institute of Highway Engineers (IHE) Accreditation received: 2016 Accreditation renewal: 2020 The Chartered Institute of Highways & Transportation (CIHT) Accreditation received: 2016 Accreditation renewal: 2020 The Permanent Way Institution (PWI) Accreditation received: 2021 Accreditation renewal: 2021
Specification Details	
Student cohorts covered by specification	2021-22 entry
Person responsible for the specification	Fionnuala NiDhonnabhain, PGT Courses Manager
Date of introduction of programme	1980
Date of programme specification/revision	September 2021
Programme Overview	
<p>This MSc course is offered jointly with University College London (UCL).</p> <p>The objectives of this course are:</p> <ul style="list-style-type: none"> • To provide a systematic understanding of the causes and motivations of personal travel and good movement and of the means by which movement takes place; • To provide a thorough grounding in techniques for analysing transport problems and developing and implementing policies and measures for resolving such problems; • To develop appreciation of the importance and methods of evaluating transport projects, plans and policies, taking into account the political, social, environmental, commercial and financial issues involved. <p>In pursuit of these objectives, the course places emphasis on road and rail transport in the more industrialised countries, whilst recognising the important roles of other forms of transport and interchange with them, and the different context in which transport problems present themselves in less industrialised countries. Subject to this emphasis, the fundamentals are addressed in ways that are relevant to all means of transport and to every kind of society. The course is designed to equip its graduates for work in transport planning, engineering, operations, management, policy and research.</p> <p>All of our MSc courses are career-orientated and cover both theoretical background and practical design considerations. Lectures are given mainly by full-time staff but important contributions are made by visiting professors and guest lecturers who are eminent industrialists.</p> <p>Many of our students continue their studies to undertake research towards a PhD.</p>	
Learning Outcomes	

The Imperial Graduate Attributes are a set of core competencies which we expect students to achieve through completion of any Imperial College degree programme. The Graduate Attributes are available at: www.imperial.ac.uk/students/academic-support/graduate-attributes

Knowledge and Understanding of:

- A selection of the major topics in the subject, their recognition and underlying fundamental principles.
- Research techniques which might include information retrieval, experimental design and statistics, modelling and safety.
- The essential facts, concepts, principles and theories relevant to the students' chosen areas of research.
- Management and communication skills, including problem definition, project design, decision processes, teamwork, written and oral reports, and scientific publications.

Intellectual/Thinking Skills:

- Analyse and solve problems using a multidisciplinary approach, applying professional judgements to balance costs, benefits, safety and social and environmental impact.
- Integrate and critically evaluate information
- Formulate and apply appropriate solutions
- Plan, conduct and write-up a programme of individual research.

Practical Skills:

- Plan and execute safely a series of experiments or computations.
- Use laboratory methods or computer-based tools to generate data.
- Analyse results, determine their strength and validity, and make recommendations.
- Prepare technical and design reports.
- Give technical presentations
- Use the scientific literature effectively.

Transferable Skills:

- Communicate effectively through oral presentations, computer processing and presentations, and written reports.
- Apply knowledge and modelling skills.
- Management skills: decision processes, objective criteria, problem definition, project design and evaluation needs.
- Integrate and evaluate information from a variety of sources.
- Transfer techniques and solutions from one discipline to another.
- Use Information and Communications Technology.
- Manage resources and time.
- Learn independently with open-mindedness and critical enquiry.
- Learn effectively for the purpose of continuing professional development.

Entry Requirements

Academic Requirement

Normally a 2.1 UK Bachelor's Degree with Honours in a relevant subject (particularly in

	<p>subjects such as Civil Engineering, as well as other branches of Engineering, Natural Sciences, Earth Sciences and other numerate disciplines) (or a comparable qualification recognised by the College).</p> <p>Additionally, an A-level in Mathematics at grade B is required.</p>
Non-academic Requirements	<p>Applicants with relevant industrial and professional experience may also be considered. Special cases, based on relevant experience, may be considered in some circumstances.</p>
English Language Requirement	<p><u>Standard requirement</u> IELTS 6.5 with a minimum of 6.0 in each element or equivalent.</p>
<p>Applicants may be invited to interview with one or more members of staff, or to undertake additional entry assessments as appropriate.</p>	
<p>The programme's competency standards document can be found at: http://www.imperial.ac.uk/media/imperial-college/faculty-of-engineering/civil/public/msc/Competency-Standards.pdf</p>	
<p>Learning & Teaching Strategy</p>	
Scheduled Learning & Teaching Methods	<ul style="list-style-type: none"> • Lectures • Tutorials • Group Discussions and Group work • Presentation skills • Progress tests • Computer laboratory sessions • Practical work • Individual research project • Seminars and Workshops • Site Visits
E-learning & Blended Learning Methods	<ul style="list-style-type: none"> • Blackboard Learn (VLE) • Online assignments and coursework • Anonymous feedback evaluations
Project Learning Methods	<ul style="list-style-type: none"> • Group coursework • Individual research project • Research Methodology teaching
<p>Assessment Strategy</p>	
Assessment Methods	<p>To complete the requirements of the degree, all assessments must be undertaken to the appropriate level and include the following:</p>

	<ul style="list-style-type: none"> • Individual and group coursework assignments • Written examinations • A research dissertation and poster • Group projects and presentations
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Academic Feedback Policy

The following are the mechanisms in place for providing prompt feedback to students on their performance in coursework and examinations and processes for monitoring:

1. Coursework, marked and annotated by academic staff, is given back to students to a three-week return schedule, sometimes with the assistance of trained GTAs.
2. Academic staff may also provide verbal feedback in class, or distribute written overviews.
3. Provisional feedback, in the form of a verbal report by the Personal Tutor, is given to all students following the July Sub-Board of Examiners meeting.

Re-sit Policy

The College’s Policy on Re-sits is available at: <http://www.imperial.ac.uk/student-records-and-data/for-current-students/undergraduate-and-taught-postgraduate/exams-assessments-and-regulations/>

Mitigating Circumstances Policy

The College’s Policy on Mitigating Circumstances is available at: <http://www.imperial.ac.uk/student-records-and-data/for-current-students/undergraduate-and-taught-postgraduate/exams-assessments-and-regulations/>

Programme Structure

Full-time	Pre-session	Term One	Term Two	Term Three	Term Four
Core Modules	0	5	0	0	0
Elective Modules	0	1	4	0	0
Projects	0	0	0	1	

Two-Years Part-time (recommended attendance)

All new students attend compulsory special sessions for the first two weeks of the term

Year 1

Autumn Term	Spring Term
CIVE97116 – Transport and its Context	Two Transport option modules of your choice
CIVE97117 – Quantitative Methods	Select Research Dissertation topic
CIVE97120 – Transport Demand and its Modelling	

Year 2

Autumn Term	Spring Term
CIVE97118 – Transport Engineering & Operations	Two Transport option modules of your choice
CIVE97119 – Transport Economics	Continue work on Research Dissertation
CIVE97121 – Transport Policy	

Continue to work on and submit Research Dissertation

Three-Years Part-time (recommended attendance)	
All new students attend compulsory special sessions for the first two weeks of the term	
Year 1	
Autumn Term	Spring Term
CIVE97116 – Transport and its Context	Two Transport option modules of your choice
CIVE97120 – Transport Demand and its Modelling	
Year 2	
Autumn Term	Spring Term
CIVE97117 – Quantitative Methods	Two Transport option modules of your choice
CIVE97121 – Transport Policy	Select Research Dissertation topic
Year 3	
Autumn Term	Spring Term
CIVE97118 – Transport Engineering & Operations	One Transport option module of your choice
CIVE97119 – Transport Economics	Continue work on Research Dissertation
Continue to work on and submit Research Dissertation	
The information provided in the following tables is indicative. Attendance may be tailored to meet the requirements of the student/employer.	
Part-Time Study	
<p>Part-time students should expect to be in full-time attendance during the two-week induction period in October of their first year of study. Thereafter attendance commitments are dependent on the timetabling of lectures, but on average equate to:</p> <ul style="list-style-type: none"> • Up to two days per week over two years • One day per week over three years <p>Business Management units are taken in the final year of study, with registration based on satisfactory performance in the core Transport programme.</p>	
Term Release	
<p>The Transport courses may be taken part-time, on a term-by-term basis, as follows: http://www.imperial.ac.uk/civil-engineering/prospective-students/postgraduate-taught-admissions/transport-cluster/term-release/</p>	
Assessment Dates & Deadlines	
Written Examinations	April-May
Coursework Assessments	Continuous
Project Deadlines	End of September
Practical Assessments	Continuous
Assessment Structure	
Marking Scheme	

The Transport cluster assessments comprise three elements: examinations, coursework and the dissertation, all of which have to be satisfied separately.

The MSc degree is awarded to any candidate who achieves all of the following:

1. An aggregate mark of not less than 50% separately in all examinations **AND**
2. The submission of all set coursework and an aggregate mark of not less than 50% separately in all coursework **AND**
3. A mark of not less than 50% in the Special Study Project.

The elements above also apply to those taking Business Management, in which examinations and coursework results will be integrated into the overall examination and coursework elements.

Provided that all of the above criteria are satisfied, the MSc degree will be awarded in one of the following classifications:

Pass

A candidate must achieve an aggregate mark of 50% minimum in all examinations and associated coursework **AND** a minimum mark of 50% in the Special Study Project.

Merit

A Merit would normally be awarded when all the following criteria are met:

- The aggregate examination mark achieved at the first attempt is at least 60% and no individual examination mark achieved at the first attempt is less than 50%
- The dissertation mark achieved at the first attempt is at least 60%
- The aggregate coursework mark achieved at the first attempt is at least 60%

Distinction

A Distinction would normally be awarded when all the following criteria are met:

- The aggregate examination mark achieved at the first attempt is at least 70% and no individual examination mark achieved at the first attempt is less than 50%
- The dissertation mark achieved at the first attempt is at least 70%

The aggregate coursework mark achieved at the first attempt is at least 70%

Module Weightings

Code	Module	Weighting	ECTS
Autumn Term			
CIVE97116	Transport and its Context	6.67%	6
CIVE97117	Quantitative Methods	6.67%	6
CIVE97118	Transport Engineering and Operations	6.67%	6
CIVE97120	Transport Demand and its Modelling	6.67%	6
CIVE97121	Transport Policy	6.67%	6
Spring Term			
CIVE97119	Transport Economics	6.67%	6
CIVE97122	Highway Engineering	6.67%	6
CIVE97123	Road Traffic Theory and its Application	6.67%	6
CIVE97124	Public Transport	6.67%	6
CIVE97125	Quantitative Techniques for Transport Engineering and Planning	6.67%	6
CIVE97126	Advanced Transport Modelling	6.67%	6
CIVE97127	Intelligent Transport Systems	6.67%	6
CIVE97128	Design of Accessible Transport Systems	6.67%	6
CIVE97129	Freight Transport	6.67%	6
CIVE97130	Air Traffic Management	6.67%	6
CIVE97131	Ports and Maritime Transport	6.67%	6
CIVE97133	Railway Management, Operation and Engineering	6.67%	6
CIVE97134	Transport, Environmental Impacts and Safety	6.67%	6
CIVE97140	Urban Design and Street planning	6.67%	6
Summer Term			
CIVE97132	Research project - Transport	33.33%	30

Note:

- Modules may not be offered in every year.
- The CIVE97119 Transport Economics module has moved to the Spring Term for the academic year 2021-2022 only.

Pre-requisites, Co-requisites and incompatibilities

Module Code	Module Name	Pre-Requisite	Linked Modules	Incompatibility
CIVE97118	Transport Engineering and Operations	NA	NA	Business Management
CIVE97121	Transport Policy	NA	NA	Business Management
CIVE97122	Highway Engineering	NA	NA	CIVE97126 Advanced Transport Modelling
CIVE97123	Road Traffic Theory and its Application [Capped at 15 students]	CIVE97118 Transport Engineering and Operations	Students who take CIVE97123 must take CIVE97125 either during the same term or during an earlier session	NA
CIVE97126	Advanced Transport Modelling	CIVE97120 Transport Demand and its Modelling	Students who take CIVE97126 must take CIVE97125 either during the same term or during an earlier session	CIVE97122 Highway Engineering
CIVE97127	Intelligent Transport Systems	NA	NA	Business Management
CIVE97128	Design of Accessible Transport Systems [Capped at 10 students]	NA	NA	CIVE97140 Urban Street Planning and Design
CIVE97131	Ports and Maritime Transport	NA	Students who take CIVE97131 must take CIVE97129 either during the same term or during an earlier session	NA
CIVE97140	Urban Street Planning and Design	NA	NA	CIVE97128 Design of Accessible Transport Systems

Indicative Module List											
Code	Title	Core/ Elective	L&T Hours	Ind. Study Hours	Place- ment Hours	Total Hours	% Written Exam	% Course- work	% Practical	FHEQ Level	ECTS
(CIVE97116)	Transport and its Context [Not formally assessed]	CORE	30	125	0	155	0%	0%	0%	7	6
(CIVE97117)	Quantitative Methods	CORE	22	125	0	147	67%	33%	0%	7	6
(CIVE97118)	Transport Engineering and Operations	CORE	30	125	0	155	67%	33%	0%	7	6
(CIVE97119)	Transport Economics	CORE	30	125	0	155	67%	33%	0%	7	6
(CIVE97120)	Transport Demand and its Modelling	CORE	30	125	0	155	67%	33%	0%	7	6
(CIVE97121)	Transport Policy	CORE	20	125	0	145	67%	33%	0%	7	6
CIVE97172	Transport Coursework	CORE	See module leader				0%	100%		7	0
(CIVE97122)	Highway Engineering	ELECTIVE	30	125	0	155	67%	33%	0%	7	6
(CIVE97123)	Road Traffic Theory and its Application	ELECTIVE	30	125	0	155	67%	33%	0%	7	6
(CIVE97124)	Public Transport	ELECTIVE	20	125	0	145	67%	33%	0%	7	6
(CIVE97125)	Quantitative Techniques for Transport Engineering and Planning	ELECTIVE	30	125	0	155	67%	33%	0%	7	6
(CIVE97126)	Advanced Transport Modelling	ELECTIVE	30	125	0	155	67%	33%	0%	7	6
(CIVE97127)	Intelligent Transport Systems	ELECTIVE	30	125	0	155	67%	33%	0%	7	6

Indicative Module List											
Code	Title	Core/ Elective	L&T Hours	Ind. Study Hours	Place- ment Hours	Total Hours	% Written Exam	% Course- work	% Practical	FHEQ Level	ECTS
(CIVE97128)	Design of Accessible Transport Systems	ELECTIVE	30	125	0	155	67%	33%	0%	7	6
(CIVE97129)	Freight Transport	ELECTIVE	20	125	0	145	67%	33%	0%	7	6
(CIVE97130)	Air Traffic Management	ELECTIVE	30	125	0	155	67%	33%	0%	7	6
(CIVE97131)	Ports and Maritime Transport	ELECTIVE	20	125	0	145	67%	33%	0%	7	6
(CIVE97133)	Railway Management, Operation and Engineering	ELECTIVE	20	125	0	145	67%	33%	0%	7	6
(CIVE97134)	Transport, Environmental Impacts and Safety	ELECTIVE	25	125	0	150	67%	33%	0%	7	6
(CIVE97140)	Urban Design and Street planning	ELECTIVE	25	125	0	150	67%	33%	0%	7	6
(CIVE97132)	Research Project (Transport)	CORE	0	750	0	750	0%	100%	0%	7	30

Supporting Information

The Programme Handbook is available at: <http://www.imperial.ac.uk/civil-engineering/prospective-students/handbooks/>

The Module Handbook is available at: <http://www.imperial.ac.uk/civil-engineering/prospective-students/handbooks/>

The College's entry requirements for postgraduate programmes can be found at: www.imperial.ac.uk/study/pg/apply/requirements

The College's Quality & Enhancement Framework is available at: www.imperial.ac.uk/registry/proceduresandregulations/qualityassurance

The College's Academic and Examination Regulations can be found at: <https://www.imperial.ac.uk/about/governance/academic-governance/regulations>

Imperial College is an independent corporation whose legal status derives from a Royal Charter granted under Letters Patent in 1907. In 2007 a Supplemental Charter and Statutes was granted by HM Queen Elizabeth II. This Supplemental Charter, which came into force on the date of the College's Centenary, 8th July 2007, established the College as a University with the name and style of "The Imperial College of Science, Technology and Medicine".

<http://www.imperial.ac.uk/admin-services/secretariat/college-governance/charters/>

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<https://www.officeforstudents.org.uk/>