Programme Specification

Transport Engineering and Planning [Frenchay]

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Contents

Section 1: Key Programme Details

Part A: Programme Information

Programme title: Transport Engineering and Planning [Frenchay]

Highest award: MSc Transport Engineering and Planning

Interim award: PGCert Transport

Interim award: PGDip Transport Engineering and Planning

Awarding institution: UWE Bristol

Teaching institutions: UWE Bristol

Study abroad: No

Year abroad: No

Sandwich year: No

Credit recognition: No

School responsible for the programme: CATE School of Architecture and Environment, College of Arts, Technology and Environment

Professional, statutory or regulatory bodies:

Chartered Institute of Logistics and Transport (CILT)

Joint Board of Moderators

Transport Planning Professional

Modes of delivery: Full-time, Part-time

Entry requirements:

For implementation from: 01 September 2024

Programme code: K46D12

Section 2: Programme Overview, Aims and Learning Outcomes

Part A: Programme Overview, Aims and Learning Outcomes

Overview: The MSc Transport Engineering and Planning is a one-year full time, or a two-to-three-year part time, postgraduate master's programme. The MSc Transport Engineering and Planning is designed to suit graduate engineers or scientists, mathematicians or statisticians, geographers, planners and economists. Graduates in other disciplines may be considered if they are able to demonstrate they have studied subjects containing a good level of numeracy or have a good level of experience in the transport industry already.

Features of the programme:

Educational Aims: The general aims of the programme are:

To provide a coherent programme of advanced study in transport, underpinned by staff research, consultancy and scholarship, in which all staff members are engaged.

To provide a programme related to the needs of professional practice, that enables students to become effective transport practitioners.

To provide a programme that is academically challenging and encourages students to develop the capacity for critical thought and action.

To offer varied study patterns in order to broaden access to the programme (flexible part-time study through the module gathering option);

Specific Aims

To analyse the complex relationships between transport and society;

To apply the concept of sustainability to spatial development and transport planning;

To use techniques of analysis of transport systems at an advanced level, drawing on

an understanding of demand management and the role of different modes of transport.

To identify and evaluate policy and funding mechanisms in the context of current and emerging transport issues in the UK, the European Union, and beyond;

To design and conduct rigorous research.

To develop additional transferable skills in communication, presentation and the management of learning.

To identify, classify and describe the performance of transport systems and components through the use of analytical methods and modelling techniques.

Programme Learning Outcomes:

On successful completion of this programme graduates will achieve the following learning outcomes.

Knowledge and Understanding

A1.   The role and significance of transport in a modern economy and society.

A2.   The nature and significance of problems and solutions which arise from the demand for movement by people and of goods.

A3.   The concept of sustainability within a global, national and local context and its application to transport planning.

A4.   The policy, political and practical constraints on the conduct of research in a transport context.

A5.   The mechanisms and systems of spatial planning.

A6.   Engineering principles as applied to the design of transport infrastructure .

A7.   The principles of network management.

Intellectual Skills

B1.   Identify problems and to apply appropriate techniques in the investigation of problems, and to deal with complexity and with gaps and contradictions within the knowledge base.

B2.   Plan strategies and tactics in response to unusual and unexpected situations.

B3.   Synthesise information and create and evaluate new approaches in the resolution of complex problems.

B4.   Apply theory to the practical resolution of complex problems.

B5.   Reflect on own educational progress and professional practice.

B6.   Design and implement a research proposal in response to complex problems.

B7.   Apply appropriate quantitative methods to the analysis of complex transport planning or engineering problems.

Subject/Professional Practice Skills

C1.   Design solutions to complex transport planning problems on the basis of analysis and through the application of comparative study.

C2.   Evaluate and justify alternative approaches to transport problems and to accurately assess and report on own/others work.

C3.   Demonstrate an awareness of the ethical dilemmas likely to arise in research and professional practice.

C4.   Apply modelling techniques in the analysis of transport problems.

C5.   Design, develop and write appropriate plans for a range of spatial scales in a range of sectors.

C6.   Use skills of negotiation, mediation, and advocacy in the planning process.

C7.   Design key elements of transport networks, used by different modes.

C8.   Design transport infrastructure.

C9.   Apply GIS to problems of transport design and planning.

Transferable Skills and other attributes

D1.   Engage in a full professional and academic communication with others in the transport and planning fields, and with non-specialist audiences, through presentations and writing.

D2.   Demonstrate authority in study and use of resources and make professional use of others in support of self-directed learning.

D3.   Work effectively as a member of a team.

D4.   Apply computing techniques to the creation of complex databases, to the analysis of data, and the application of quantitative models.

Assessment strategy: Students learn and are assessed through a series of practice oriented projects, underpinned by theory. These projects are evaluated through a balanced mix of written reports, written design / analysis portfolios and verbal presentations. Opportunities for formative feedback are embedded in the delivery of the face to face contact sessions, and through wider engagement with module tutors.

Student support:

Part B: Programme Structure

Year 1
Full-time students must take 180 credits from the modules in Year 1.
Part-time students must take a maximum of 60 credits from the modules in Year 1.

Year 1 Compulsory Modules (Full-time)
Full-time students must take 180 credits from the modules in Compulsory Modules (Full-time).

Module Code	Module Title	Credit
UBGM8P-15-M	Changing Travel Behaviour 2024-25	15
UBGMRK-60-M	Masters Project 2024-25	60

UBGMLK-15-M	Street Network Planning and Design 2024-25	15
UBGLWP-15-M	Sustainable Transport Management and Operations 2024-25	15
UBGM8M-15-M	Transport Economics and Appraisal 2024-25	15
UBGMFX-15-M	Transport Infrastructure Design 2024-25	15
UBGM8N-15-M	Transport Modelling and Scenario Planning 2024-25	15
UBGM61-15-M	Transport Planning and Placemaking 2024-25	15
UBGM8Q-15-M	Transport Policy and Finance 2024-25	15

Year 1 Compulsory Modules (Part-time)
Part-time students must take 60 credits from the modules in Compulsory Modules (Part-time).

Module Code	Module Title	Credit
UBGMLK-15-M	Street Network Planning and Design 2024-25	15
UBGM61-15-M	Transport Planning and Placemaking 2024-25	15
UBGM8Q-15-M	Transport Policy and Finance 2024-25	15
UBGMFX-15-M	Transport Infrastructure Design 2024-25	15

Year 2
Part-time students must take 120 credits from the modules in Year 2.

Year 2 Compulsory Modules (Part-time)
Part-time students must take 120 credits from the modules in Compulsory Modules (Part-time).

Module Code	Module Title	Credit
UBGM8P-15-M	Changing Travel Behaviour 2025-26	15
UBGMRK-60-M	Masters Project 2025-26	60
UBGLWP-15-M	Sustainable Transport Management and Operations 2025-26	15
UBGM8M-15-M	Transport Economics and Appraisal 2025-26	15
UBGM8N-15-M	Transport Modelling and Scenario Planning 2025-26	15

Part C: Higher Education Achievement Record (HEAR) Synopsis

Graduates of MSc Transport are able to:

Analyse the complex relationships between transport and society, including the dimension of social justice.

Apply the concept of sustainability to spatial development and transport planning.

Analyse transport systems at an advanced level, drawing on an understanding of demand management and the role of different modes of transport.

Identify and evaluate policy and funding mechanisms in the context of current and emerging transport issues in the UK, the European Union, and beyond.

Demonstrate the potential to be effective transport planning practitioners.

Part D: External Reference Points and Benchmarks

The programme is accredited by the Chartered Institute of Highways for the Transport Planning Professional qualification, the Engineering Council (by the Joint Board of Moderators) for Chartered Engineer and by the Chartered Institute of

Logistics and Transport.

The programme is designed to be consistent with the qualifications descriptors set out in the National Qualification Framework (August 2008) issued by the Quality Assurance Agency for Higher Education.

Part E: Regulations

Approved to variant University Academic Regulations and Procedures.

The following variant regulation for compensation applies to students on this award which has been accredited by a PSRB that comes under the auspices of Engineering Council UK.

The variant applied to September 2023 intake onwards (Note - Compensation applied to all levels not just new students).

- The permitted maximum compensated credit is 30 credits for a Bachelors or Integrated Masters degree and a maximum of 20 credits in a Masters degree.

- The awarding of compensated credit may be considered for an overall module mark in the range 30% to 39% for Levels 4-6 and 40%-49% for Level 7.

No excused credit.