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MSc/PGDip
Mega Infrastructure Planning, Appraisal and Delivery

UCL's Mega Infrastructure Planning, Appraisal and Delivery MSc programme is unique in preparing students for the major challenges ahead globally in the mega infrastructure field. By highlighting new frameworks and methodologies that bring risk and uncertainty into the milieu of complex decision-making for mega infrastructure development, extending to critical areas of governance, politics, social and environmental development, finance and strategic planning, and how sustainable development goals can/should be incorporated in future investment decisions – the programme offers a holistic approach to the field offering decision making and problem solving that lead to more robust investment outcomes.

Overview

The programme is inter-disciplinary and international, drawing on numerous studies undertaken in this field by the OMEGA Centre and other leading research institutions, with the aim of developing a critical understanding of mega infrastructure theory and practice. It investigates the fundamental question of 'what constitutes a successful mega infrastructure project, programme and/or plan' in light of the fast-changing expectations that different stakeholders have of such investments.

The MSc recognises that judgments about project 'success' need to be examined against different contexts. With this is mind, the programme aims to arm students with insights, knowledge and skills that will assist them to better plan, appraise and deliver future mega infrastructure developments in a manner that is sensitive to the risks, uncertainties and complexities of different contexts, whether temporal, cultural or physical.

The core learning outcomes of the course include:

- Acquisition of understanding of the fundamental characteristics of mega projects, plans and programmes
- Appreciation of challenges and trends in theories and practice of mega infrastructure planning, appraisal and delivery.
- Understanding of the contribution that such initiatives make to environmental, social, economic and institutional objectives at local, national and global scales.
- Appreciation of the policies, legislative frameworks and market contexts that surround mega infrastructure development.
- Appreciation of the diversity of stakeholders' agendas and of interrelationships and tensions between local and national interests.
- Enhanced understanding of the critical issues concerning sustainable infrastructure investment at all scales.
- Attainment of generic skills of strategic planning and risk management distilled from other disciplines where risk, uncertainty and complexity are at the heart of their planning.
- Grounding in traditional infrastructure planning and appraisal methods and techniques including: Financial, Economic and Social Cost Benefit Analysis (CBA), Environmental Impact Assessment (EIA), and Social Impact Assessment (SIA).
- Introduction to innovative methods and techniques for infrastructure planning, appraisal and monitoring, including: Stakeholder and Issue Analysis and policy-led Multi Criteria Analysis (PLMCA) that facilitate the transparent trade-off between different project stakeholder priorities, aims and interests in a holistic manner.

Structure/Content

The programme comprises the following modules:

- BENVGMP1 Mega infrastructures as agents of change
- BENVGMP2 Traditional infrastructure planning, appraisal and delivery toolbox
- BENVGMP3 Risk, uncertainty and complexity in decision-making
- BENVGMP4 Critical issues in sustainable mega infrastructure investments
- BENVGMP5 21st Century infrastructure planning, appraisal and delivery toolbox
- BENVGMP6 Sustainability visions and challenges for mega infrastructure investments
- BENVGMP7 Student group project
- Elective Module (free choice but subject to approval by the Course Director)
- BENVGPL3 Planning Research
- BENVGPL7 Dissertation in Planning

Term 1 *Oct-Dec*	Term 2 *Jan-Mar*	Term 3 *Apr-May*	Summer *Jun-Sep*
BENVGMP1 Mega infrastructures as agents of change	BENVGMP4 Critical issues in sustainable mega infrastructure investments	BENVGMP7 Group project	BENVGPL7 Dissertation (PT yr 2)
BENVGMP2 Traditional infrastructure planning, appraisal and delivery toolbox	BENVGMP6 Sustainability visions and challenges for mega infrastructure investments	BENVGPL3 Planning Research (Dissertation support module)	
BENVGMP3 Risk, uncertainty and complexity in decision-making	BENVGMP5 21st Century infrastructure planning, appraisal and delivery toolbox		
Elective (Can be taken term one or term two, depending on the module chosen)			

Field Course

Students will have the opportunity to visit a selection of some important European mega-projects during a one week trip. In this way students will be able to appreciate directly the way different contexts, including cultural, political and institutional, frame mega infrastructure decision-making in their planning, appraisal and delivery. In the last years students have visited and received specially arranged presentations from a wide range of senior professionals, civil servants and academics regarding:

- France's High Speed TGV network
- The Paris Meteor
- The Port of Rotterdam
- The Rotterdam Central Station
- The Randstaad Rail and the Maeslant Barrier in the Netherlands
- The Brussels Station area development
- The Öresund Link in Sweden and Denmark
- EU policies and plans on trans-national mega infrastructure developments.

Entry Qualifications

Applicants must normally have obtained a first or second class honours degree (with a minimum of 2.2 or its equivalent) or other qualification of equivalent standard. Entrants from all disciplines will be considered, with preference given to those with work experience in some aspects of mega infrastructure planning, appraisal and delivery. A demonstrated high level of competence in both spoken and written English is also required. Overseas students whose first language is not English will be asked to provide evidence of this. A minimum overall score of 6.5 with a minimum of 6.0 in each of the sub-tests for IELTS or 580 plus 4 for TWE in TOEFL is required.

Careers

The programme has been conceived to provide enhanced capacity-building opportunities for those currently working in the field of mega infrastructure development and offer an invaluable grounded qualification for new entrants into the field.

With strong links to industry, government and academia on a global scale, to date 85% of the 2012 Mega Infrastructure Planning, Appraisal and Delivery MSc intake have gone on to find placements within the first year after graduation. They have taken up positions in government, investment banking, community development, academia, consulting and the construction industry. Two graduates have been accepted to undertake PhD studies at the OMEGA Centre.