LONDON'S GLOBAL UNIVERSITY

Science, Technology, Engineering and Public Policy

Introduction to Science, Technology, Engineering and Public Policy (STEP0010)

Description

This 60 credit module is broken into five distinct but interconnected sub-modules, designed to provide MPA students with the foundational understanding and skills needed to help societies’ public policy and decision-making communities.

Knowledge & Governance (Dr Adam Cooper) - This sub-module provides an introduction for UCL STEaPP MPA students to conceptual frameworks and practical sense-making tools for public policy and decision-making in the 21st century. In this context, public policy and decision-makers need frameworks and tools to help them: (i) identify and understand the issues and relationships that are most relevant from the perspective of their communities, institutions and individual roles; and (ii) formulate policy responses and decisions that can be flexibly adapted as new understanding emerges or circumstances change.

Public Administration (Dr Irina Brass) - This sub-module focuses on the tools and processes that contemporary public administrations employ when managing and implementing policies. Throughout this sub-module, you will have the opportunity to reflect on the main administrative capacities that governments need in order to respond to complex policy problems, such as how to regulate emerging technologies or how to manage coupled crises that cut across several policy areas.

Evidence for Decision-making (Dr Carla Washbourne) - Public decision-makers face a huge challenge in bringing together and integrating different types of knowledge necessary to inform the best possible decisions. Natural science (quantitative) knowledge frequently has to be integrated with social science (quantitative and qualitative) knowledge, as well as engineering and practitioners’ knowledge. Each type of knowledge has different limitations and types of uncertainty attached to it. Integrated analysis is regarded here as the art of bringing together knowledge from across multiple disciplines and converting these to outputs with direct

Key information

<table>
<thead>
<tr>
<th>Year</th>
<th>2020/21</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credit value</td>
<td>60 (600 study hours)</td>
</tr>
<tr>
<td>Delivery</td>
<td>PGT L7, Campus-based</td>
</tr>
<tr>
<td>Reading List</td>
<td>View on UCL website</td>
</tr>
<tr>
<td>Tutor</td>
<td>Dr Adam Cooper</td>
</tr>
<tr>
<td>Term</td>
<td>Term 1</td>
</tr>
<tr>
<td>Timetable</td>
<td>View on UCL website</td>
</tr>
</tbody>
</table>

Assessment

- Coursework: 20.0%
- Coursework: 20.0%
- Coursework: 25.0%
- Coursework: 20.0%
- Coursework: 15.0%

Find out more

For more information about the department, programmes, relevant open days and to browse other modules, visit ucl.ac.uk

Disclaimer: All information correct as of March 2020. Please note that aspects of the module may be subject to change. UCL will make best efforts to inform applicants of major changes.
utility for policy decision-making.

**Policymaking (Dr Jenny McArthur)** - This sub-module acts as a focal point for applying much of the learning you will do across the rest of the module, focused on the policy process and practical skills needed to design and develop policy solutions. In complex and rapidly evolving fields like science, technology and engineering, policy analysis often takes place in the absence of perfect information, clear choices and uncontested options. It is useful therefore, to be familiar with a framework for structuring your thinking, your decision making and your communications. In order to begin developing your toolkit for policy analysis, we will employ Bardach’s Eightfold Path outlined in *A Practical Guide for Policy Analysis*.

*This content is supplemented by MPA route specific content, provided by MPA Route Leads, which includes one-day per week of specialist content and a further full week of specialist content at the mid-point of the term.*