

# Engineering and Policy Analysis

EPA

## MSc Programme



In this program, we teach you to become a policy advisor or strategy consultant equipped with more than just engineering skills. EPA is unique in its quantitative, analytical and modelling approach to policy and strategy. Several international business partners contribute to the program with guest lectures, real-life cases, projects as well as thesis internship programs. You will be good with data, modelling and simulations and work in an international classroom environment. These skills are needed to parry the complex, dynamic issues affecting both the Netherlands and the world.

Degree	Master of Science
Starts	September
Type	full-time
Credits	120 ECTS, 24 months
Language	English
Application deadline	April 1st: international students July 1st: Dutch degree
Scholarships	<a href="https://scholarships.tudelft.nl">scholarships.tudelft.nl</a>

It is important that analytically gifted students know how political systems work, as they are characterised by conflicting interests and ambiguity.

Our multi-actor systems modelling approach to real-world problems focuses on the interaction between nature, society and technology. Our aim is to improve quality of decision-making by analysing the impact of policy decisions on natural and technical systems. Dynamic modelling techniques allow us to simulate system behaviour and to design strategies for

improved system performance. It is an engineering approach to solving today's Grand Challenges: climate change, water management, sustainable energy, cyber security and global health.

### Programme

During this two year master's programme you will gain the knowledge and means necessary to analyse complex problems, to model and simulate dynamic systems and to assess solutions that change our world for the better. You will study through innovative teaching

FIRST YEAR				SECOND YEAR		
1ST SEMESTER		2ND SEMESTER		3RD SEMESTER		4TH SEMESTER
1ST QUARTER	2ND QUARTER	3RD QUARTER	4TH QUARTER			
Data Analytics & Visualisation	Actor and Strategy Models	Advanced System Dynamics	Model-based Decision-making	Societal Challenge Project (or electives)	Specialisation Electives	EPA Master Thesis
Understanding International Grand Challenges	Intercultural Relations and Project Management	Political Decision-making	Ethics and Impacts of Global Interventions			
Policy Analysis of Multi-actor Systems or Computer Engineering for Scientific Computing	Introduction to TPM Modelling or Technology	Advanced Discrete Simulation	Macro Economics for Policy Analysis		Master Thesis preparation	

methods, online and offline, with focus on debating and presentation skills, including role-play with actors. You will also profit from the case based approach of the programme, with real life cases, that are provided by ministries, multinationals and NGO's.

EPA equips you with more than just the technical skills you would expect in a standard engineering curriculum. EPA is interactive, international and interdisciplinary. You will be working on technological challenges in a context where political, moral, cultural and socio-economic considerations are crucial to decisionmaking processes and must be factored into the solutions. The complexity of these problems requires collaboration across the disciplines of natural and social sciences, and across international and cultural boundaries. We call this Comprehensive Engineering

### Curriculum

The first year programme has been designed along two lines; a 'policy and politics' line with courses focusing on analysis, politics, ethics and intercultural relations, and a 'modelling and simulation' line with courses focusing on data analytics, computer programming and advanced dynamic modelling techniques. The two lines are interwoven in its application to practical real-world problems.

In the third semester EPA students may choose from a range of TU Delft electives packages. Two of the electives packages offer an annotation, implying that the graduation project has a related theme and is carried out in an external organization related to the specialisation.

Visit our website for current information about the electives. You can also study abroad or participate in the Societal Challenge Project, during which you work on a project for a real client organisation like an NGO or government agency.

The programme is concluded with a master thesis research project, executed in one of our thesis labs or with a client organization.

### Career prospects

Typically EPA graduates start their career as a strategy advisor or consultant and rapidly grow to managerial positions in the public and private sector. Many graduates find employment with multinational engineering, consulting and banking firms or as strategic advisors to national governments, regulatory bodies and international organisations. Other graduates have pursued advanced degrees or remained in academia.

### About The Hague

The EPA programme is taught in the city of The Hague. The Hague is home to many multinationals, government agencies, international consulting companies and non-governmental organizations and it's around 7 miles from the Delft University Campus. Over 300 international companies are based in The Hague and the city enjoys the particular interest of companies in energy, IT and security sectors.



15<sup>th</sup>

QS World University Rankings by Subjects 2020 in Engineering and Technology



Only

TU Delft programme taught in The Hague, home of the Dutch government



104

students started in 2020

### Career perspective



90%

job within 6 months



60%

job as consultant or strategic advisor