Master Health Sciences
Programme

• General courses Quartile 1
• Specialisations Quartile 2
  • Track: Personalized Monitoring and Coaching
  • Track: Optimization of Healthcare Processes
  • Track: Innovation in Public Health
• Admission
• Questions and have a drink
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**PMC** = Personalized Monitoring & Coaching  
**IPH** = Innovation in Public Health  
**OHP** = Optimizing Healthcare Processes
General courses Quartile 1

- Health Economic Modelling, 5EC
- Stakeholder Preference Elicitation and Decision Support, 5EC
- Data Science, 5EC
Health Economic Modelling (HEM)

- Assesses the impact of new medical innovations or interventions on health outcomes and costs
- Simulation
- R studio
Stakeholder Preference Elicitation and Decision Support (SPECS)

- Healthcare decisions are complex and involve trade-offs
- Shared decision making, benefit risk assessment
- Perform a multi-criteria decision analysis
- COVID-19 example
Data Science

▪ Prepare and analyse data to support or improve healthcare
▪ E.g.: Predicting surgical case durations for a Thorax centre
What kind of specialisations do we offer?

- Personalized Monitoring and Coaching
- Optimization of Healthcare Processes
- Innovation in Public Health
Personalized Monitoring and Coaching

- eHealth Development: a Holistic Approach, 5EC
- eHealth for Remote Patient Monitoring and Decision, 5EC
- Monitoring and Persuasive Coaching, 5EC
Personalized Monitoring and Coaching

**eHealth Development: a Holistic Approach**

- Explore basic principles and theories of eHealth
- Development, implementation and evaluation of persuasive eHealth
- Evaluation of technologies
- Learn the CeHRes Roadmap
Personalized Monitoring and Coaching

eHealth for Remote Patient Monitoring & Decision

- Discover how technology can be used to gather information about health and wellbeing
- Measuring and processing data into relevant information for healthcare providers and the patient
- Develop a system for monitoring and coaching and present it to potential end users
- Graded with presentations and a report
Monitoring and Persuasive Coaching

- Use the information from other courses for coaching and advice to individuals
- Use a number of specific design steps, from creating to realisation and evaluation
- Work on three practical projects
- Use a dataset to evaluate the use of existing eHealth platform for chronic diseases
Personalized Monitoring and Coaching

- Job options:
  - Consultant at PinkRoccade/Meditain
  - Product owner at Topicus Healthcare
  - PhD student or junior researcher at a university
  - Policy and quality advisor at Ambia
  - Functional designer at Impulse info systems
  - eHealth project member/coordinator at Transfore
  - Product analyst at Demcon
Optimization of Healthcare Processes

- Finance and Healthcare Purchasing, 5EC
- Quality Management in Healthcare 5EC
- Optimizing Healthcare Processes 5EC
Optimization of Healthcare Processes

Finance and Healthcare Purchasing

- Understand purchasing as a management issue
- Purchasing topics from the perspective of healthcare providers and insurers/municipalities
- Sourcing and contracting of care, the financial structure of the healthcare system and developments in healthcare procurement
- Graded by assignments, writing an article and an exam
Optimization of Healthcare Processes

Quality Management in Healthcare

- Concepts of quality and safety in healthcare
- Analysis and improvement techniques
- What is quality, how to evaluate and improve it?
- How to implement safety management systems?
- How to communicate on quality and safety issues?
- Graded by a group assignment, an individual assignment and an exam
- Excursion to Rijnstate Hospital
Optimization of Healthcare Processes

Optimizing Healthcare Processes

- Operations management topics in Healthcare
- Processes are analysed and optimized with tools e.g. simulation models with the use of Excel
- Managerial problem solving method (a 7-step tool to solve problems in a systematic way)
- Graded by an assignments and an exam
Optimization of Healthcare Processes

Job options:

- Junior Researcher at for example IKNL
- Data analyst outcome indicators at a hospital
- Project leader implementing new care concepts
- Policy advisor in a healthcare facility
- Many more options.
Innovation in Public Health

- Public Health Innovations, 5EC
- PH: Dynamics in Policy, Law and Regulation, 5EC
- Health Economics: Maximizing Societal Welfare, 5EC
Innovation in Public Health

Public Health Innovations

- Implementation of medical technologies and innovations in public healthcare organisation
- Collaboration between organisations and professionals to improve the quality of public health and wellbeing
- How organisations and professionals collaborate in the implementation of public health innovations
- Graded with an exam
Innovation in Public Health

PH: Dynamics in Policy, Law and Regulation

- Knowledge and tools necessary to be an active participant in the shaping of future public health policies
- Deep understanding of not only health and illness but also of matters related to policy-making, legislative processes and legal principles
Health Economics: Maximizing Societal Welfare

- Demonstrate how health economic analysis can facilitate the achievement of improvements in the health of the population
- Potential market failures in the supply of health services and insurance
- Budget impact analysis and value frameworks
Innovation in Public Health

Job options:

▪ Policy maker
▪ Advisor
▪ Scientist
▪ Consultant
▪ Inspector
▪ Manager
▪ Regulator
▪ Researcher
Admission
Related Programs:

HBO:
- Fysiotherapie
- Verpleegkunde
- Ergotherapie
- Sportkunde
- Gezondheid en Technologie
- Bestuurskunde
- Bedrijfskunde/ MER
- And other’s

WO:
- Health Sciences
- Medicine
- Psychology
- Public Administration
- Human Movement Sciences
- And other’s
Premaster for HBO students:

**Start February 30 EC:**
- eHealth development in context (5 EC, ENG)
- Economic Analysis & evaluation in Healthcare (5 EC, ENG)
- Research Methodology & Descriptive Statistics (5 EC, ENG)
- Optimalisatie van Zorg (15 EC, NL)

Enroll before January 1st!

**Start September 30 EC**
- Healthcare Economics and Accounting (15 EC, ENG)
- Klinisch Wetenschappelijk onderzoek (15 EC, NL)

Enroll before August 1st!
Premaster for WO students:

Start February  15 or 30 EC:
- eHealth development in context (5 EC, ENG)
- Economic Analysis & evaluation in Healthcare (5 EC, ENG)
- (Research Methodology & Descriptive Statistics) (5 EC, ENG)
- And/or: To be determined on previous programma

Enroll before January 1st!

Start September  15 or 30 EC
- Healthcare Economics and Accounting (15 EC, ENG)
- And/or: To be determined on previous programma

Enroll before August 1st!
Math and English:

- Advise: take courses before the start of the premaster if you don’t feel sure about these topics

- Level VWO (wiskunde A)

- Not mandatory!

- Saxion (niet-technische variant), NHA.nl or James Boswell Institute
International students:

- BSc very much related to Health Sciences (Public Health, Epidemiology e.g.)
- Sufficient knowledge in Research Methodology, Statistics and Health Economics
- Assessment by the Admission Committee
Websites and contact:

- **Websites:**
  - Premaster: [www.utwente.nl/en/hs/pre-master](http://www.utwente.nl/en/hs/pre-master)
  - Master information: [https://www.utwente.nl/onderwijs/master/opleidingen/health-sciences/](https://www.utwente.nl/onderwijs/master/opleidingen/health-sciences/)

- **Contact:**
  - Study advisor: [a.h.prins@utwente.nl](mailto:a.h.prins@utwente.nl) (‘live’/ teams): tnw.planner.utwente.nl
  - Study Information Centre (general information, questions about admission, scholarships, tuition-fee, e.a.): [www.utwente.nl/en/education/student-services](http://www.utwente.nl/en/education/student-services)
Questions ?!