Info Evening: Postgraduate Program Master of Science in Epidemiology

November 16, 2022
5-7pm
Agenda

1. Overview & Formal Structure
2. Credits & Courses
3. Application & Admission
4. Master’s Thesis
5. Tuition & Fees
6. Q&A
Abbreviations

**BAuA:** Federal Institute for Occupational Safety and Health

**BIH:** Berlin Institute of Health

**BSPH:** Berlin School of Public Health

**CEFR:** Common European Framework of Reference for Languages

**DAAD:** German Academic Exchange Service

**ECTS:** European Credit Transfer and Accumulation System

**HPI:** Hasso-Plattner-Institute

**iBikE:** Institute of Biometry and Clinical Epidemiology

**IPH:** Institute of Public Health, Charité - Universitätsmedizin Berlin

**MDC:** Max Delbrück Center

**MScEpi:** Master of Science in Epidemiology

**RKI:** Robert Koch-Institute
1. Overview & Formal Structure
MScEpi Core Team

- Prof. Tobias Kurth, MD, ScD - Academic Director
- Nadja Wülk, MScPH - Academic Program Coordinator
- Tanja Te Gude - Student Services
Board of Admissions and Examinations

- Prof. Tobias Kurth, MD, ScD, Director IPH
- Prof. Dr. Elke Schäffner, Deputy Director IPH
- Prof. Dr. Ute Latza, BAuA
- Annette Aigner, PhD, iBikE
- Nadja Wülk, MScPh, IPH (substitute)
- Student Representatives
MScEpi: Our Goals

The postgraduate Master’s program MScEpi offers students an advanced interdisciplinary education to …

- deepen their methodological knowledge in the fields of modern epidemiology, population health sciences and biostatistics
- expand their competencies in epidemiologic research
The Master of Science in Epidemiology is offered by the **Institute of Public Health (IPH)**, Charité - Universitätsmedizin Berlin via the **Berlin School of Public Health (BSPH)** platform.

- A collaborative initiative of three universities in Berlin:
  - Alice Salomon Hochschule Berlin
  - Charité - Universitätsmedizin Berlin
  - Technische Universität Berlin
- Serves as a hub for Public Health research and continuing education in the Berlin-Brandenburg Region
- The educational mission is to train young scientists to tackle the challenges of population health in the 21st century
- Managing Director: Dr. Nina Adelberger

- Research and teaching in Public Health and Epidemiology are the main pillars of the institute
- Main research areas:
  - Renal, neurological and cardiovascular epidemiology
  - Health Services research
  - Methods and Meta Research
- Offers various teaching modules for master and doctoral students as well as for professionals
- Director: Prof. Tobias Kurth, MD, ScD
Collaborations

Extensive collaborations with public health, research, and health policy institutions ensure that coursework reflects current developments in research and scientific professional practice.
Program History

- **2007**: German language postgraduate programs at BSPH
  - Master of Public Health (MPH) → discontinued in 2020*
  - Master of Science in Epidemiology (MSE)
- **2020**: Restructuring of the MSE and start of the English language postgraduate program MScEpi
  - Internationalization of the program
  - Expansion of program scope (e.g. Medical Informatics)
- **67 students currently enrolled in the MScEpi across 3 cohorts, 9 students already graduated, 7 about to graduate**

* Public Health is offered at the BSPH as a consecutive master's program since 2016
Key facts

- The program begins annually in mid-October
- Up to 30 students are accepted each year
- In-person, on-campus classes
- The program is offered in a full-time or part-time format
  - **Full-time** students complete the program in 2 semesters (1 year)
  - **Part-time** students can complete the program in 4 semesters (2 years) while working part-time
  - Flexible structure: The program can also be completed in 3 or more than 4 semesters
Key facts (cont.)

- The program encompasses 60 credit points (ECTS)
- A total of 10 modules must be completed
- Total tuition: €10,200
- All courses are taught in English
- The program is an accredited academic program and is evaluated regularly
- The academic degree awarded is MSc - Master of Science, awarded by Charité - Universitätsmedizin Berlin
Target Audience

- Designed for mid-career professionals with qualified work experience
- Different academic backgrounds of our students and their respective work experience greatly shape the quality of the discussions in our seminars
- We look forward to applications from the medical and natural sciences, social sciences, IT or mathematical fields
2. Credits & Courses
Program Overview

- Five **Core Methods Modules** of 5 ECTS each that all students must take in order to graduate
- Three advanced **Elective Modules** provide room for students to pursue individual interests in 15 ECTS worth of coursework
  - **Electives** offered in the program
  - **Intensive Short Courses**
  - Relevant non-MScEpi Courses
- The program is completed by conducting an **Independent Research** Project with 20 ECTS and consists of two Modules that build on each other

<table>
<thead>
<tr>
<th>Core methods courses (required)</th>
<th>self study</th>
<th>contact hours</th>
<th>ECTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Module 1 Research Methods</td>
<td>90</td>
<td>60</td>
<td>5</td>
</tr>
<tr>
<td>Module 2 Epidemiology I</td>
<td>90</td>
<td>60</td>
<td>5</td>
</tr>
<tr>
<td>Module 3 Biostatistics I</td>
<td>90</td>
<td>60</td>
<td>5</td>
</tr>
<tr>
<td>Module 4 Epidemiology II</td>
<td>90</td>
<td>60</td>
<td>5</td>
</tr>
<tr>
<td>Module 5 Biostatistics II</td>
<td>90</td>
<td>60</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Upper level electives</th>
<th>self study</th>
<th>contact hours</th>
<th>ECTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Module 6 Applied Epidemiologic Methods</td>
<td></td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>select courses to total 5 ECTS</td>
<td>Cancer and Nutritional Epidemiology</td>
<td>45</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>Molecular Epidemiology</td>
<td>45</td>
<td>30</td>
</tr>
<tr>
<td>Module 7 Disease Monitoring</td>
<td>select courses to total 5 ECTS</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Population Health Monitoring</td>
<td>45</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>Infectious Disease Epidemiology</td>
<td>45</td>
<td>30</td>
</tr>
<tr>
<td>Module 8 Applied Epidemiology</td>
<td>select courses to total 5 ECTS</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Evidence-based Medicine</td>
<td>45</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>Applied Medical Informatics</td>
<td>45</td>
<td>30</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Intensive short courses</th>
<th>self study</th>
<th>contact hours</th>
<th>ECTS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>35</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>40</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2.5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Independent Research</th>
<th>self study</th>
<th>contact hours</th>
<th>ECTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Module 9 Research Project</td>
<td>150</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td>Module 10 Master's Thesis</td>
<td>450</td>
<td>5</td>
<td>15</td>
</tr>
</tbody>
</table>

ECTS = European Credit Transfer System

Wintersemester 2022-23
Last update: 11.11.2022
Aim: ensure that all students have a comprehensive set of theoretical and applied skills in epidemiologic research methods.

- 5 ECTS credits each for a total of 25 credits
- We recommend that both full-time and part-time students complete these modules in the first and second semesters of the program

<table>
<thead>
<tr>
<th>Module Title</th>
<th>Contact Hours</th>
<th>Head Lecturer</th>
<th>ECTS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Winter Semester</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Public Health Research</strong></td>
<td>12 sessions (2.5h), 6 sessions (5h)</td>
<td>PD Dr. Yanina Lenz (Bayer AG), Dr. Stefan Konigorski (HPI)</td>
<td>2.5</td>
</tr>
<tr>
<td><strong>Epidemiology I</strong></td>
<td>12 sessions (2.5h), 6 sessions (5h)</td>
<td>Madlen Schranz, MScPH (RKI)</td>
<td>5</td>
</tr>
<tr>
<td><strong>Biostatistics I</strong></td>
<td>12 sessions (2.5h), 12 sessions (2.5h)</td>
<td>Annette Aigner, PhD (iBikE)</td>
<td>5</td>
</tr>
<tr>
<td><strong>Summer Semester</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Epidemiology II</strong></td>
<td>12 sessions (2.5h), 12 sessions (2.5h)</td>
<td>Prof. Tobias Kurth, MD, ScD (IPH)</td>
<td>5</td>
</tr>
<tr>
<td><strong>Biostatistics II</strong></td>
<td>12 sessions (5h)</td>
<td>Dr. Stefan Konigorski (HPI)</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td>25</td>
</tr>
</tbody>
</table>

See our [Handbook](#) for module descriptions.
Electives (Module 6-8)

- Aim: To impart specialized methodological skills in various fields of epidemiology
- Provide room for students to pursue individual interests
- Students select six courses á 2.5 ECTS each for a total of 15 ECTS to fulfill the requirements

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Contact Hours</th>
<th>ECTS</th>
<th>Head Lecturer</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Winter Semester</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Population Health Monitoring</td>
<td>12 sessions (2.5h)</td>
<td>2.5</td>
<td>PD. Dr. Hannelore Neuhauser (RKI)</td>
</tr>
<tr>
<td>Infectious Disease Epidemiology</td>
<td>12 sessions (2.5h)</td>
<td>2.5</td>
<td>PD. Dr. Hendrik Wilking (RKI)</td>
</tr>
<tr>
<td>Molecular Epidemiology</td>
<td>6 sessions (5h)</td>
<td>2.5</td>
<td>Prof. Dr. Tobias Pischon (MDC)</td>
</tr>
<tr>
<td>Cancer and Nutritional Epidemiology</td>
<td>6 sessions (5h)</td>
<td>2.5</td>
<td>Dr. Katharina Nimptsch (MDC), Prof. Dr. Tobias Pischon (MDC)</td>
</tr>
<tr>
<td><strong>Summer Semester</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Applied Medical Informatics</td>
<td>12 sessions (2.5h)</td>
<td>2.5</td>
<td>Prof. Dr. Dr. Felix Balzer (Charité)</td>
</tr>
<tr>
<td>Evidence-based Medicine</td>
<td>6 sessions (5h)</td>
<td>2.5</td>
<td>Dr. Monika Nothacker (AWMF)</td>
</tr>
</tbody>
</table>

See our Handbook for module descriptions
Intensive Short Courses

- Held in cooperation with renowned guest lecturers from universities and research institutes from Germany and abroad
- Can be substituted for any Elective
- Open to the general research community
- Course format: usually one week full time

https://bsph.charite.de/en/academic_programs/intensive_short_courses/
Intensive Short Courses - Examples

- **Malcolm Barrett** (University of Southern California, Apple, RStudio): “Mastering R for Epidemiologic Research”
- **Miguel Hernán** (Harvard T.H. Chan School of Public Health) / **Katalin Gemes** (Karolinska Institutet): “Causal inference: Learning what works”
- **Matthew Fox** (Boston University): “Advanced Epidemiologic Methods: Rethinking Basic Epidemiologic Concepts”
- **Rolf H.H. Groenwold** (Leiden University) / **Maarten van Smeden** (UMC Utrecht): “Advanced Epidemiologic Methods – causal research & prediction modelling”
- **Julie E. Buring** / **Pamela Marie Rist** (Harvard Medical School): “Principles and Methods of Epidemiology: Critiquing the Medical Literature”
Non-MScEpi Courses - Examples

- *Workshop(s) on Planetary Health* (IPH, Potsdam Institute for Climate Impact Research)
- *Peerspectives* (IPH)
- *Advanced Methods in Health Data Sciences* (IPH)
- *Using Meta-Research to Improve Science: A Participant-Guided “Learn by Doing” Course* (BIH, QUEST Center for Responsible Research)
- *Oxford|Berlin Summer School on Open Research* (BIH, QUEST Center for Responsible Research)
- …
The Master’s Thesis (Module 10) is an independent scientific research project. Together with the Research Project (Module 9), it makes up one third of the MSc Epidemiology degree.

- **Module 9** (5 ECTS - 150 hours) is designed to provide room for finding a topic and preparing a project that is suitable for completion in the master's thesis.
- **Module 10** (15 ECTS credits - 450 hours) is dedicated to completing the research project and documenting the process in a written master’s thesis.
# Schedule - Full Time - 40 hours/week SIT*

<table>
<thead>
<tr>
<th>Monday 14:30-19:00</th>
<th>Tuesday 14:30-19:00</th>
<th>Wednesday 14:30-19:00</th>
<th>Thursday 14:30-19:00</th>
<th>Friday 14:30-19:00</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Winter Term</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>October - March</td>
<td>Module 1 / 2 / 3</td>
<td>Module 9 - Master’s Project (self study)</td>
<td>Module 6 (Electives 1 / 2)</td>
<td>Module 7 (Electives 3 / 4)</td>
</tr>
<tr>
<td>18 weeks of classes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2) Summer Term</td>
<td>Module 4 / 5</td>
<td></td>
<td>Module 10 - Master’s Thesis (self study)</td>
<td></td>
</tr>
<tr>
<td>April - September</td>
<td></td>
<td></td>
<td></td>
<td>Module 8 (Electives 5 / 6)</td>
</tr>
<tr>
<td>12 weeks of classes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Student Investment Time = Course work and preparation time

Substitute an ISC for an Elective
## Schedule - Part Time - 20 hours/week SIT*

<table>
<thead>
<tr>
<th>Days</th>
<th>Monday 14:30-19:00</th>
<th>Tuesday 14:30-19:00</th>
<th>Wednesday 14:30-19:00</th>
<th>Thursday 14:30-19:00</th>
<th>Friday 14:30-19:00</th>
</tr>
</thead>
</table>
| **(1) Winter Term**  
October - March  
18 weeks of classes |                          | Module 1 / 2 / 3    |                       | Part-time students can choose to take Electives this semester, if they have time |                       |
| **(2) Summer Term**  
April - September  
12 weeks of classes |                          | Module 4 / 5        |                       | Module 6 (Elective 1 / 2) | Substitute an ISC for an Elective |
| **(3) Winter Term**  
12 weeks of classes |                          | Module 9 - Master’s Project (self study) |                       | Module 7 (Elective 3 / 4) | Module 8 (Elective 5 / 6) |
| **(4) Summer Term**  
12 weeks of classes |                          | Module 10 - Master’s Thesis (self study) |                       |                       |                       |

* Student Investment Time = Course work and preparation time
# Flexible Schedule - 3 Semester Option

<table>
<thead>
<tr>
<th>Term</th>
<th>Monday 14:30-19:00</th>
<th>Tuesday 14:30-19:00</th>
<th>Wednesday 14:30-19:00</th>
<th>Thursday 14:30-19:00</th>
<th>Friday 14:30-19:00</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Winter Term</td>
<td>Module 1 / 2 / 3</td>
<td></td>
<td></td>
<td>Module 6 (Elective 1 / 2)</td>
<td>Module 7 (Elective 3 / 4)</td>
</tr>
<tr>
<td>October - March</td>
<td>18 weeks of classes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Summer Term</td>
<td>Module 4 / 5</td>
<td>Module 9 - Master’s Project (self study)</td>
<td>Module 8 (Elective 5 / 6)</td>
<td></td>
<td>Substitute an ISC for an Elective</td>
</tr>
<tr>
<td>April - September</td>
<td>12 weeks of classes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Winter Term</td>
<td>Module 10 - Master’s Thesis (self study)</td>
<td></td>
<td></td>
<td></td>
<td>(Take one or more Electives)</td>
</tr>
<tr>
<td>12 weeks of classes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3. Application & Admission
Admission Requirements

1. **University Degree** encompassing a minimum of 240 ECTS or equivalent (four years of regular coursework)

2. At least one year of qualified, **professional work experience**

3. **English language** proficiency at minimum B2 level based on CEFR standard

4. **Mathematical knowledge** and aptitude

Questions? Contact us!
Application deadlines

- **Early Admissions Deadline - January 31st, 2023**
  - To give international applicants enough time to apply for a student visa and planning
  - Admissions are processed in February and notice of admission is provided as soon as possible
  - We are unable to process applications from students who require a visa to enter Germany after this deadline

- **Regular Admissions Deadline - May 15th, 2023**
  - Notice of Admission provided in July

- **Rolling admissions until September 30st, 2023**
  - Processed in the order in which they are received
  - Admission as long as places are available
  - As soon as all available places are assigned, we start a waiting list

Please check well in advance if you need to apply for a visa to enter Germany.
Application documents

The following documents must be submitted:

- Completed **application form***
- CV in English (max 3 pages)
- Statement of Motivation (max 1 page)
- Research Proposal (max 2 pages)
- Transcript of Records and Degree certificates/Diplomas of all higher level education (after highschool)
- Proof of English language proficiency

* Now available!
Application: Statement of Motivation

- Elaborate on:
  - Why you want to study Epidemiology
  - Your career goals / How this program will help in your work and career
- The statement should not repeat your CV or transcripts but explain your personal motivation
- Not longer than one page, typed
Application: Research Proposal

- In order to be able to complete the program 12 months, it is imperative that you have a clear research idea and access to scientific data that you can use for your Master’s thesis.
- Elaborate on:
  - The research field you are interested in and, if applicable, your previous experience in this field
  - The research objective(s)
  - (Potential) data sources or data you would like to analyse in your thesis
- No longer than two pages
- Part-time students also have to submit a research proposal
- Topic can still be changed after enrollment
The language of instruction and examinations in the MScEpi is English. Therefore, strong command of the English language - minimum B2 level based on CEFR - is required to successfully complete the program. If not a native speaker, please provide one of the following proofs of English proficiency:

- Completion of a degree program in English
- High school diploma (with English as the language of instruction) or equivalent
- TOEFL: minimum required score 72
- IELTS: minimum required score 5.5
- List of Publications, Professional experience in an English speaking environment
- …

See [here](#) for the full list of accepted proof.
Application: General requirements

- Send your application by email preferably as a single PDF attachment
- Only complete applications will be considered
- Only send the required documents
- Please follow the requirements on the website/the application form

https://bsph.charite.de/en/academic_programs/epidemiology/msc_epidemiology_at_the_institute_of_public_health/application_mscepi/
Admission Procedure

- Application window is open as of November 16, 2022
- Next possible enrollment date: October 1, 2023
- Your application will be checked for completeness and meeting all the requirements by the Core Team
- If all requirements are met we schedule a personal interview via Zoom
- Final Admission will be decided by the Board of Admissions and Examinations
Applicant Interviews

Interviews will last ca. 25 minutes

- Get to know you, your motivation and career goals
- Discuss your scientific background and your research proposal
- Discuss a scientific article we will send you in advance
- **Make sure the MScEpi is the right program for you and answer your questions**

Interviews will be held in:

- February (Early Admissions Deadline)
- June (Regular Admissions Deadline)
- Throughout July/August/September (Rolling Admissions)
4. Master’s Thesis
The Master’s Thesis in the MScEpi

- Is the last part and culmination of the program
- Consists of two Modules that build on each other
  - **Module 9 - Research Project:** provides room for finding a topic and preparing a project that is suitable for completion in the master's thesis
  - **Module 10 - Master’s Thesis:** dedicated to completing the research project and documenting the process in a written master’s thesis
- Is supervised by two advisors
Thesis objectives

By completing Module 9 & 10, you prove

●  … that you can independently perform research on current scientific discourses and scientific findings and that you are able to generate and formulate **answerable and well-defined epidemiological questions**, taking into account the current state of research

●  … that you are capable of choosing independently and informedly a **method that is suitable to answering your question** and apply it according to the rules of good scientific practice
Thesis objectives (cont.)

- ... that you can **document** your systematically gained knowledge **appropriately and transparently**, that you are capable of discussing and **reflecting on your findings critically** and from different perspectives and know how to present them in writing
- ... that you can build and **follow a time schedule** containing all relevant steps until the completion of the research project
- ... that you can **present your work orally**, highlighting aims, methods, main findings, conclusions, strengths and limitations and respond to critical questions and remarks
5. Tuition and Fees
Tuition and Fees

Charité - Universitätsmedizin Berlin charges

(1) **Tuition** and

(2) **Enrollment Fees**

per semester for participation in postgraduate programs
(1) **Tuition** is €10,200 (€170/ECTS) for the entire program including supervision and evaluation of the Master’s Thesis

- **Full-time** students pay €5.100 in October at the time of enrollment and €5.100 in April at the beginning of the second semester
- **Part-time** students pay €2.550 in October at the time of enrollment, €2.550 in April at the beginning of the second semester, €2.550 in October at the beginning of the third semester and €2.550 in April at the beginning of the fourth semester
- Should you take longer than two full time or four part time semesters to complete the program, **no further tuition** is due
- Enrolled students receive a bill for each payment due
(2) **Enrollment Fees** (Matriculation Fees) are due for each semester enrolled and must be paid per semester.

<table>
<thead>
<tr>
<th></th>
<th>University governance voting rights Humboldt-Universität</th>
<th>University governance voting rights Freie Universität</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>With</strong> public transportation BVG-Semesterticket</td>
<td>€315,64</td>
<td>€312,89</td>
</tr>
<tr>
<td><strong>Without</strong> public transportation BVG-Semesterticket</td>
<td>€113,84</td>
<td>€114,09</td>
</tr>
</tbody>
</table>
Funding

- The BSPH, unfortunately, does not provide any financial aid or scholarships
- For scholarship opportunities, please check e.g.
  - HU Berlin: [https://www.international.hu-berlin.de/en/studierende/aus-dem-ausland/wegweiser/08/08_01_03](https://www.international.hu-berlin.de/en/studierende/aus-dem-ausland/wegweiser/08/08_01_03)
6. Q & A
Your Questions?

Thank you!

Contact:

Nadja Wülk  
nadja.wuelk@charite.de  
+49 30 450 570 669

Tanja Te Gude  
tanja.te-gude@charite.de  
+49 30 450 570 812