M.Sc. Population-Based Medicine
@ University of Tübingen
What is population-based medicine?

Population-based medicine and public health

Why study @ Tübingen?

Why study PBM @ Tübingen?
  - Interdisciplinary and interprofessional
  - Research-oriented
  - Mentorship
  - Practicum

Study program

Career options

Application and selection process

FAQs

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Our goal

Attempto!

Program overview

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What is population-based medicine?

Population health sciences is the study of the conditions that shape distributions of health within and across populations, and of the mechanisms through which these conditions manifest in the health of individuals. Population health takes a broad, interdisciplinary approach and includes health outcomes as well as patterns of health determinants.

Population-based medicine can be defined as population health science with a focus on medical conditions and patient populations, and refers to all aspects of community medical care, from primary prevention to tertiary care. Population-based medicine often works with big datasets and epidemiological and statistical methods to identify patterns in the diseases and health of large populations. Your can find more information on the field of study and our research on the department website.

The Master’s Program Population-Based Medicine (PBM) in Tübingen prepares students to respond to both challenges and opportunities to improve health within and across populations. Our goal is to train future population health experts with outstanding methodological knowledge and interdisciplinary expertise to address the full range of factors influencing health and disease. This includes the designing, implementation and evaluation of intervention programs for health problems (e.g., lifestyle modification strategies and stress management), the development of prevention strategies at the population level (e.g., for diabetes, cardiovascular conditions, and cancer), as well as the development of policy recommendations, health education, and outreach at community and population level (e.g., digital health technologies).
What is population-based medicine?

“Population-based medicine studies causes of health states and conditions that shape distributions of health within and across populations. The causes of population health are multidimensional and include behavioral, environmental, biological, social, economic, cultural, and psychological factors. Those determinants or risk factors accumulate throughout the life course, and they are embedded in dynamic interpersonal interactions.”

Prof. Dr. Norbert Schmitz  
Program Director
Population-based medicine and public health

What is the difference between population-based medicine and public health?

Population-based medicine provides the basic understanding of how health and illness are produced, while public health aims to apply that understanding toward building and promoting health in populations.

Population-based medicine can be considered as the basic science of public health, much as biomedical research is the basic science of clinical medicine.

Tübingen does not have a university, it **is** a university: young, creative, open, diverse. The picturesque historical town center and its attractive position on the Neckar River offer a high quality of life whether you are studying, working, or taking a break.

Innovative. Interdisciplinary. International. These have been our guiding principles in research and teaching from the very beginning. Founded in 1477, Tübingen is one of Europe’s oldest, most respected institutions of higher education. Tübingen’s success in the German Government’s Excellence Programs since 2012 have placed it among the most outstanding universities in Germany. The University is also well-placed in international education rankings.

The University’s excellence in research and teaching offers optimal study conditions to students who come to Tübingen. The attractive study environment is reinforced by many additional services, such as the Language Center, interdisciplinary lectures in the Studium Generale, and the state-of-the-art University Library.
Why study PBM @ Tübingen?

The Master’s Program Population-Based Medicine prepares you to meet any challenge in population-based medicine. Four main features of the program are crucial for this:

1. **Interdisciplinary & interprofessional.** We follow a comprehensive approach including behavioral, biological, social and mental factors of health and illness. You will study, learn, and work in interprofessional groups.

2. **Research-oriented.** We strongly focus on empirical and synthesis methods in population health research.

3. **Mentorship.** You will receive support and advice throughout the program by your individual mentor.

4. **Practicum.** In the third semester you will obtain practical experience and apply your professional competencies in population-based medicine.
Population-based medicine addresses current demographic, social, medical, and psychological issues that affect population health. An interdisciplinary approach is therefore particularly important – you will become familiar with methodologies and research strategies from a variety of disciplines. Our courses will address emerging issues and incorporate new educational strategies and technologies. Our goal is to prepare you for careers as members (and leaders) of interdisciplinary teams.

In the same vein, interprofessional education is a process in which two or more professions learn from, about, and with each other to enable effective collaboration and improve health outcomes. Our program acknowledges the need for interprofessional education as becoming increasingly important to meet the challenges of the changing health care landscape.
Research-oriented

The PBM program offers a broad spectrum of courses covering research methods, statistics, health communication, the design of population-based interventions, and evidence-based medicine to provide you with a sound knowledge base about population health research. You will apply this knowledge in a practical way during your practicum and Master’s Thesis. Based on this combination of a rigorous research-oriented education and its application to real-world problems, you will be well equipped for a career in science, research, economy, policy, or industry.

Research-orientation in the PBM program is reflected by:

- The development of methodological skills in population health research.
- The development of communication skills (written or oral).
- The development of skills in critical appraisal of research findings.
- The development of a research mindset.
At the beginning of the Master’s Program Population-Based Medicine, students will be paired with a mentor from the PBM department who will guide their personal and professional development throughout their studies.

Mentors supervise four to five students and provide support for the successful completion of the program and the practicum in particular. In addition, they provide advice in methodological problems students may encounter during their practicum project. We have a well formatted concept that we apply to provide successful mentorship for all our students. Your mentor will guide your personal and professional development throughout your studies and provide encouragement, advice, and academic support.
In the third semester you will complete a 14-week full-time practicum in a private or public organization (e.g., local planning and government offices, hospitals, NGOs) in Germany or abroad.

You will apply your theoretical knowledge from the classroom in a real-world setting of your choice. Your mentor will help you develop a practicum project (e.g., quantitative or qualitative data analysis or another project) that you will work on during your practicum, present to your co-students in the practicum seminar, and write about in your practicum report, which serves as the graded final examination of this module.
The Master’s Program Population-Based Medicine lasts two years (four semesters) and encompasses a total of 120 ECTS. Full-time courses will be held during the first and second semester. In the third semester you will be able to further specialize by completing your practicum in a field of your choice. The practicum experience may inform your choice of topic for your Master’s Thesis in the fourth and last semester.

More information on curriculum and study and examination modalities can be found in the module handbook and in the study and exam regulations (for the PBM program and for Master’s programs at the University of Tübingen in general).

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<thead>
<tr>
<th>1st Semester</th>
<th>CP: Credit Points</th>
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<tbody>
<tr>
<td>Population-Based Medicine I</td>
<td>12 CP</td>
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<tr>
<td>Statistics I</td>
<td>6 CP</td>
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<tr>
<td>Project in Health System</td>
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<td>Biopsychosocial Medicine</td>
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<th>2nd Semester</th>
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<td>9 CP</td>
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<tr>
<td>Population-Based Medicine II</td>
<td>6 CP</td>
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<tr>
<td>Statistics II</td>
<td>6 CP</td>
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<tr>
<td>Public Health</td>
<td>9 CP</td>
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<th>3rd Semester</th>
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<tr>
<td>Practicum</td>
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<th>4th Semester</th>
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<tr>
<td>Master’s Thesis</td>
<td>30 CP</td>
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A Master’s Degree in Population-Based Medicine opens a variety of paths to pursue. You will have acquired skills and techniques in a wide range of health-related areas, as well as collaborative team working, communication and research methodology. Career options could include working at:

- Local planning and government offices (e.g., Public Health Officer)
- Hospitals (e.g., Health Promotion Specialist, Communication Officer)
- Consulting companies (e.g., Health Policy Analyst)
- Health insurance companies (e.g., Health Data Scientist)
- National and international (health) organizations (e.g., Program Manager)
- Pharmaceutical companies (e.g., Population Health Scientist)
- Universities and research institutes (e.g., Research Coordinator)
- Non-governmental organizations (e.g., Strategic Partnership Analyst)
- Various companies (e.g., Occupational Health Manager)

The program also provides a solid foundation for PhD studies.
Application and selection process

Application requirements

- Completed Bachelor’s degree (6 semesters) in Health Sciences or an equivalent degree in a related field of study
- Minimum final grade of 2.5 in the German grading system
- English language proficiency at the level of B2 CEFR

If your degree is not from Germany, the University of Tübingen will convert your degree grade to the German grading system.

Please note that meeting the application requirements is not sufficient to guarantee admission. Applications are further assessed in terms of academic merit and the prospect of professional excellence of candidates.

Related fields of study

Here below is a list of subjects that could be considered as comparable to Health Sciences. Make sure to include a Transcript of Records or similar documents which describe the contents of your Bachelor’s Degree in order to allow for assessment of the comparability of the field. A final decision can only be made based on your complete application.

<table>
<thead>
<tr>
<th>Public Health</th>
<th>Health Economics</th>
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<tr>
<td>Epidemiology</td>
<td>Health Policy</td>
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<tr>
<td>Medicine</td>
<td>Biostatistics</td>
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<td>Dentistry</td>
<td>Psychology</td>
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<td>Nursing</td>
<td>Sports</td>
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<td>Midwifery</td>
<td>Sociology</td>
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<td>Nutrition</td>
<td>Cognitive Sciences</td>
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<tr>
<td>Pharmacy</td>
<td>……..</td>
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Apply here!
Deadline: 15th January
Application and selection process

Stage 1: Pre-selection

**Bachelor’s Degree grade**
Minimum score (2.5): 15 points
Maximum score (1.0): 30 points

**Other achievements**
1. Workplace or internship experience
2. Scientific achievements
3. Credit points in statistics and methods

Minimum score: 0 points
Maximum score: 20 points

Applicants with the highest scores will be selected for an interview.

Stage 2: Selection interview

The interview will be conducted online by members of the selection committee and lasts around 20-30 minutes.

**Discussion topics**
- Aptitudes and motivation
- Argumentative and analytical skills
- Knowledge on statistics and methods
- Career aspirations

Minimum score: 0 points
Maximum score: 30 points

A maximum of 20 applicants with the highest scores will be offered a place on the PBM program.

More information on the the application and selection process as well as additional links can be found here.
Application and selection process - Examples

Applicant A

- Bachelor’s degree with a final grade of 1.1 in the German grading system (29 points)
- 9 ECTS from a statistics course (5 points)
- Co-authorship of a scientific paper (5 points)
- Stage 1 score: 39 points
- Selection ranking: place 7

Applicant A is invited to an interview.

- Interview score: 25 points
- Stage 2 score: 25 points

- Total score: 64 points
- Admission ranking: place 12

Applicant A is offered a place on the PBM Master’s program.
Application and selection process - Examples

Applicant B

- Bachelor’s degree with a final grade of 1.5 in the German grading system (25 points)
- Nursing internship of six months (7 points)
- 3 ECTS from a statistics course (0 points)
- Stage 1 score: 32 points
- Selection ranking: place 20

Applicant B is invited to an interview.

- Interview score: 20 points
- Stage 2 score: 20 points

- Total score: 52 points
- Admission ranking: place 18

Applicant B is offered a place on the PBM Master’s program.
FAQs

Which degree is required for admission to the M.Sc. Population-Based Medicine program?

You need a Bachelor’s Degree (or an equivalent degree of at least 6 semesters) in Health Sciences or a comparable subject. Examples for potentially comparable subjects are:

- Public Health
- Epidemiology
- Medicine
- Dentistry
- Nursing
- Midwifery
- Nutrition
- Pharmacy

- Health Economics
- Health Policy
- Biostatistics
- Psychology
- Sports
- Sociology
- Cognitive Sciences
- ……..

Make sure to include a Transcript of Records or similar documents which describe the contents of your Bachelor’s Degree in order to allow for assessment of the comparability of the field. A final decision can only be made based on your complete application.
What is the difference between the PBM program and a Public Health program?

A simple approach to bridging population-based medicine and public health: population-based medicine is the basic science of public health, much as biomedical research is the basic science of clinical medicine. Population-based medicine provides the basic understanding of how health is produced, while public health aims to apply that understanding toward building and promoting health in populations.


What ist the difference between the PBM program and an Epidemiology program?

Epidemiology provides essential knowledge to design, implement, and assess approaches to effectively prevent disease and improve health in populations. Epidemiological methods are the cornerstones of population health and population-based medicine, which consider the broader picture by integrating concepts, methods and evidence from behavioral, environmental, biological, social, economic, cultural, and psychological science.
Do I need any specific skills in statistics and methods?

Yes, some knowledge in statistics and methods is expected. However, you may still apply for the program if your bachelor’s degree fulfills the admission requirements. During the selection process you may receive bonus points for CPs obtained in statistics and methods. Also, the topic will be discussed during the selection interview.

Is work experience required for the application?

Work experience is not a prerequisite for your application. However, relevant work experience may give you bonus points in the selection process. Therefore, make sure to upload any certificate or verification you might have on your work experience.

How many students will be admitted?

There are 20 study places in Population-Based Medicine per year.

When does the program start?

The program currently only starts in the summer semester; courses start mid-April.
What is the deadline for applications?

The deadline for your application is January 15th. No application received after this date can enter the selection process. Apply here.

What is the language of instruction?

All courses and examinations will be held in English. You need English skills at the B2 level (CEFR). A corresponding certificate must be submitted with the application. More information can be found here.

What is the schedule of the program?

In the first two semesters, courses will be held according to a fixed schedule. In the third semester you will complete your mandatory 14-week practicum and attend an online practicum seminar. In the fourth semester you will attend a Master’s colloquium and write your thesis. The detailed schedule can be found in the module handbook.

Do I also need German language skills?

Although you won’t need German in your courses, German skills are useful for managing your everyday life in Tübingen or in case you would like to complete your practicum in a German organization. Consider taking German lessons at the Centre for German as a foreign language.
Am I qualified to apply for a place to study in Germany?

At the information portal anabin (German only) and the DAAD database on admission requirements (English/German) you can check for yourself whether your qualifications meet the requirements. Please refer to the website concerning application and admission for international students and the application officers.

Is there an opportunity to study abroad during the program?

A good opportunity to spend time abroad during your master studies is the practicum in the third semester. Start looking for potential practicum organizations early, and use a practicum abroad for getting to know yet another health system.

Who will convert my grades into the German grading system?

The section Advising and Admission of International Students will convert your grades. More information on applications by international students can be found here and here, for example.

How much is the tuition fee?

German and EU citizens only need to pay the so-called “Semesterbeitrag” which is roughly around 160 € per semester. Non-EU citizens additionally have to pay a tuition of 1500 € per semester.
Where can I work with a degree in Population-Based Medicine?

With a degree in Population-Based Medicine you can work in a variety of public and private organizations in the health sector (e.g., hospitals, consulting agencies), as well as NGOs. You will also be ready for pursuing PhD studies.

How can I prepare for my studies in Germany?

The University of Tübingen offers a free-of-charge virtual intercultural preparation package (Tü-VIPP) with courses on German language, culture, politics and society. You can take part in these online courses even before being a student in Tübingen. The only prerequisite is that you are enrolled as a student in your home country.

Where and how can I find accommodation?

Accommodation in Tübingen can be found privately or in halls of residence run by the Studierendenwerk or other organisations. International students can find help here. Please note: Finding an apartment or room in Tübingen can take some time, so start your search early.

How to get started in Tübingen?

To help you find your way around, the University of Tübingen offers an extensive welcome and information program. For international students there is also an onboarding system including a buddy program and a help desk.
What type of Visa should I apply for?

All students from most non-EU countries will require a student visa. We recommend you to contact the nearest German embassy or German consulate in your home country as early as possible about visa requirements, after having admission confirmation. For further information on visa regulation please check the websites of the German Federal Foreign Office and the DAAD.
Contacts and links

Program Director
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Program Coordinator
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Germany        Germany

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pbm.studium@med.uni-tuebingen.de

• Module handbook
• Study and exam regulations (in German and English – note that only the German version is legally binding)
• Masterrahmenprüfungsordnung der Universität Tübingen (German and English – note that only the German version is legally binding)
• Selection statutes (in German and English – note that only the German version is legally binding)
• Admission and enrollment statutes University of Tübingen
• Program website - University of Tübingen
• Program website – Faculty of Medicine
• Department website
• Apply here
• Student Counseling Service (study Orientation)
• Student Administration (application and admission German nationals and applicants with German entrance qualification)
• Advising and Admission of international students
• Onboarding for degree-seeking international students
• Family Office
• Gender Equality Office
• Diversity Office
Our goal

To train future population health experts with outstanding methodological knowledge and interdisciplinary expertise to address the full range of factors influencing health and disease.
Attempto!

Take inspiration from our University’s motto: Attempto! – I dare! … and apply for Population-Based Medicine in Tübingen!

We’re looking forward to meeting you!
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<td>Application deadline: 15.01.2023</td>
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<td>4 semesters/ 2 years</td>
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Faculty of Medicine
Department of Population-Based Medicine
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Program website