# Information for potential applicants

## M.Sc. Applied Statistics

## Trier University

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Thank you for your interest in our master programme at Trier University! This document should offer you some orientation on the nature of the programme, its admission requirements, application deadlines, resources etc. The following topics are covered:

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## 1 The programme

The M.Sc. Applied Statistics programme at Trier University covers a **broad** spectrum of statistical methods and their application. The core of the programme is organised and taught by the Economic and Social Statistics Department of Trier University. However, depending on the chosen specialisation track, other subjects may be involved as well, e.g. computer sciences, mathematics, or environmental sciences. Currently, the following four specialisation tracks are offered from which one has to be chosen:

- 1. Survey Statistics
- 2. European Master in Official Statistics (EMOS)
- 3. Data Science
- 4. Geostatistics

Our programme is research-focussed. As such, it is demanding, contains a considerable amount of self-study and is thus **designed as a full-time programme**. Furthermore, it is **designed as an on-site programme**.

## 1.1 Language

You can completely study the whole master programme in English. However, if you have sound German skills, the choices for elective courses etc. will be broader, thus giving you more options.

#### 1.2 Duration

The programme is designed as a four semester (or two years) course of study.

### 1.3 Internships and semesters abroad

As of 30 January 2020, the programme does neither contain mandatory internships nor mandatory semesters abroad. However, the specialisation track European Master in Official Statistics (EMOS) potentially contains an internship at an institution of official statistics. There are double degree arrangements with the University of Pisa in Italy and studying abroad within the ERASMUS programme is a potential option. However, these matters can usually only be discussed once a student has been admitted to the programme and has actually started her/his studies at Trier University. If you are really interested in a double degree with the University of Pisa though, please contact the academic student advisor (see Subsection 11.1) before you apply.

## 2 Admission requirements

### 2.1 Degree

In order to successfully apply to this master programme you need to hold a bachelor's degree (or equivalent) from a German or foreign university at the time of application. This means that you have earned at least 180 credit points according to the European Credit Transfer and Accumulation System (ECTS). If you are in doubt regarding the transfer of credit points from your local system to the ECTS, please consult related websites. If your degree is in one of the following fields, you do not have to check the credit points earned during your studies in detail:

- (Applied) mathematics
- Business mathematics
- Statistics

If, however, your degree is in one of the fields mentioned in the next bullet points, you have to check the credit points earned during your studies in detail. Specifically, you should then only apply if you have earned at least 24 credit points (ECTS) in mathematics or quantitative methods or statistics, where you have earned at least 10 credit points (ECTS) in statistics and at least 5 credit points (ECTS) in mathematics (as an example, 12 points in statistics, 6 points in mathematics, and 6 points in quantitative methods would be OK). Some examples of courses that will count towards these 24 credit points are listed in the appendix of this document. The respective fields are the following:

- Business administration
- Economics
- Social sciences / sociology

If your degree is not in one of the six fields mentioned above but in a field that is closely related to one of them (like, e.g., political science with a quantitative focus), you have to check the credit points earned during your studies in detail too. Specifically, you should then only apply if you have earned at least 30 credit points (ECTS) in mathematics or quantitative methods or statistics, where no further specifications regarding the *nature* of these credits apply.

Please note that although you clearly need mathematics in a course on microeconomics or in a course on finance (to give just two examples), these courses will not count towards the mathematics credit points, etc. The same goes for, e.g., a course on pre-calculus. If you do not hold a bachelor's degree in one of the first three fields mentioned above, please provide a list of the courses you consider to count in the defined category with your application and attach the respective syllability possible. Please refrain from asking whether course XYZ will count in an e-mail and try to judge for yourself (using the examples given in the appendix as a guideline). The official check can only be done once you formally applied for the programme.

In some cases, it is possible to apply without having finished the bachelor studies yet, i.e. without holding a degree yet. Applicants then have to submit a transcript of the credits they already earned in their studies. As a rule of thumb, such applicants should finish their studies within a semester from their application for the programme. As an example, German applicants should have earned 150 of the total 180 credit points associated with a bachelor's degree. If you are in doubt whether you have enough credits to apply in such a situation, please contact the *Studierendensekretariat* (Admission Office) of Trier University (see Subsection 11.2). However, we recommend applying with a finished degree.

### 2.2 Bachelor's vs. master's degree etc.

In the German higher education system, the basis for a decision on admission of an applicant into a *consecutive* master's degree (meaning a master's degree that is not self-contained, like e.g. an MBA programme, but rather deepens the prior academic education) is always a bachelor's degree. Therefore, a master's degree in a related field (see Subsection 2.1) cannot *compensate* for a bachelor's degree in an unrelated field, like, e.g., history in this specific case.

## 2.3 Grade point average (GPA)

Your grade point average (GPA) should be 2.0 or better according to the German grade system (where a lower number is better). If your GPA is worse than 2.0 but better than 2.6, your application might still be successful. If your GPA is 2.6 or worse, your application will not be successful. There is no remedy for a worse GPA than 2.5. To

**convert your** *local* **GPA to the German GPA**, please use the following formula:

$$\frac{G_{max}-G}{G_{max}-G_{min}}\cdot 3+1\,,$$

where G is your actual local GPA,  $G_{max}$  is the maximum (i.e. the best possible value) of your local GPA, and  $G_{min}$  is the minimum passing grade in your local GPA. The result will then be truncated after the first decimal place. As an *example*, suppose that your actual GPA is 9.5, the best possible value of your local GPA is 10, and the minimum passing grade in your local GPA is 6. This would lead to the following result:

$$\frac{10 - 9.5}{10 - 6} \cdot 3 + 1 = 1.375 \approx 1.3$$

Please provide your GPA conversion with your application.

### 2.4 English language skills

As the master programme is taught in English, students need sufficient English language skills. The respective requirements can be found in the current version of the Einschreibeordnung der Universität Trier, specifically §4 Section 2. The current documents (as these are legal documents, they are in German) can be found under https://www.uni-trier.de/index.php?id=56986. The following details refer to the current situation as of January 6, 2020. Applicants are exempt from having to prove their English language skills if they were born or have studied a programme taught in English full-time for two years (within the last two years prior to application) in one of the following countries/country groups:

- United Kingdom
- United States of America
- Canada
- Australia
- New Zealand

Applicants are exempt as well if they had at least 5 years of school English in *Sekundarstufe I und II* or got at least a grade of 5 out of 15 in their *Abitur*. All other applicants have to prove their English language proficiency by providing ONE of the following certificates (issued within the last three years prior to application), where scores relate to overall bands:

- Cambridge Certificate in Advanced English (CAE)
- C1 certificate according to CEF (Common European Framework)
   → This is usually only relevant for European students.
- International English Language Testing System (IELTS) with a score of at least 6.0
  For IELTS, both versions (*General* as well as *Academic*) count. If you

For IELTS, both versions (General as well as Academic) count. If you still have to take the examination, we would recommend the Academic version though.

- Test of English as a Foreign Language (TOEFL) with a score of at least
  - 80 in the internet-based test, or
  - 215 in the computer-based test, or
  - 550 in the paper-based test
- UNIcert III
  - $\rightarrow$  This is usually only relevant for European students.

A letter issued by a university that prior studies were done in English is not sufficient proof of English language proficiency.

#### 2.5 R skills

We recommend that applicants have a sound working knowledge of the statistical programming language R (see www.r-project.org). R is the main programming language/software environment used throughout the course of study and students will have to familiarise themselves with it.

#### 2.6 Letter of motivation

Applicants have to provide a **letter of motivation** with their application. This letter should **not be longer than one DIN A4 page** and explain why the applicant chose Applied Statistics, why the applicant chose Trier University, and why the applicant is suited for the programme.

#### 2.7 Letters of recommendation

The examination board cannot and **does not take letters of recommendation** into account in its decision. Therefore, please refrain from sending such documents with your application.

#### 2.8 Decision of examination board

If an applicant holds a bachelor's degree (or equivalent) in a field explicitly listed in one of the first three bullet points in Subsection 2.1, has a GPA of 2.0 or better, and has proven her/his English proficiency (if needed), she/he will be admitted to the programme by the examination board. Please note that the final admission is also conditional on other formal requirements related to the general enrollment as a student at Trier University! These procedural details are outside of the examination board's reach. Please contact the Studierendensekretariat of Trier University for questions related to this. If an applicant holds a bachelor's degree (or equivalent) in a field explicitly listed in one of the next three bullet points (i.e. bullet points 4 through 6) in Subsection 2.1, has earned the required number of credit points in the specific fields mentioned in Subsection 2.1, has a GPA of 2.0 or better, and has proven her/his English proficiency (if needed), she/he will be admitted to the programme by the examination board. If an applicant holds a bachelor's degree (or equivalent) in a field closely related to the ones explicitly mentioned above, has earned the required number of credit points in the specific fields mentioned in Subsection 2.1, has proven her/his English proficiency (if needed) and/or has a GPA that is worse than 2.0 but better than 2.6, the examination board will decide on admission on a case-by-case basis. In all other cases, applicants cannot be admitted to the programme.

#### 2.9 Provisional admission letters

Trier University does not issue any provisional letters of admission. Letters of admission can only be issued once all admission requirements have been met and the examination board has decided in favour of the application. After consulting the coordination of the German Academic Exchange Service (Deutscher Akademischer Austauschdienst, DAAD), no provisional letter of admission is required for applying to their scholarships. The only documents needed are those related to the students themselves, i.e. degree certificates, CVs, etc.

## 3 Professional experience and online courses

Some potential applicants do not have an academic background fitting our programme (e.g. they studied a certain language, etc.). They would like to compensate for this by detailing their professional experience (e.g. working as a data analyst, etc.) or online courses related to our programme they took on platforms like Coursera, Udemy, etc. We are perfectly aware of the fact that people can be very successful working in fields that do not coincide with their original academic studies. Online courses are a valid tool of life-long learning as well. However, the process of becoming a student at a German university is governed by rather strict regulations. As we have no way of objectively (and comparatively) assessing your knowledge gathered in professional work or online courses, we cannot and are not allowed to take these into account when dealing with your application. Summing up, the only thing that matters for your application (besides some other formal requirements) is your academic background and we cannot consider your professional experience and/or online courses you took. So please refrain from giving us details about the latter.

## 4 Programme start

German and other EU students can start their studies either in the winter semester (usually at the end of October) or in the summer semester (usually at the end of April). Non-EU students can only start their studies in the winter semester. Please note that you will not find this programme in Trier University's application portal for a summer semester application if you are a non-EU student. These formal options aside, we STRONGLY recommend that you start your studies in our programme in the winter semester! The programme is structured in such a way that the introductory and propeadeutics courses are held in winter. A start in the summer semester for EU students would still be possible but quite a bit harder than the regular start in the winter semester.

## 5 Application

#### 5.1 Deadlines

Our master programme is officially a **subject without admission restrictions**. There are obviously certain requirements that applicants have to meet, as outlined in Section 2. Admission restrictions per se, on the other hand, refer to certain student quota. The current application deadlines for the upcoming semesters can be found here: https://www.uni-trier.de/index.php?id=709&L=2. The deadlines differ depending on whether you have German university admission qualifications (*Bildungsinländer*) and on your citizenship (EU versus non-EU citizens). As detailed in the last section, non-EU citizens can only apply for the winter semester. However, EU citizens should also note the remark given in the last section.

### 5.2 Application portal

Trier University uses an online application portal that you can reach under https://porta-system.uni-trier.de/qisserver/pages/zul/applicant. faces. To see the English version of the portal if you land on a German website, please click on the flag in the upper left corner to switch the language. At a later stage of your application process you will be required to send in copies of your documents by mail as well. Some of these will have to be notarized/officially certified. Information on this can be found in the link to the website for international applicants in Section 12. Trier University does not provide a separate list detailing which copies of documents have to be notarized. In addition to the website just mentioned, this information can be found in the application portal. The respectice details will be given in the process. Please do not send any copies of documents by mail without being asked to do so first. The application portal will give you some information on the current status of your application as well. Please refrain from sending e-mails asking for updates on your application status. You will be informed as soon as a decision has been reached.

### 5.3 Delays after admission

Currently, once an applicant has been admitted to the programme for a certain semester, she/he has to start their studies at Trier University in this semester. If there is a delay hindering a start in this semester and a start would only be possible in the subsequent semester, the applicant has to re-apply for this subsequent semester. Given that the examination regulations (and therefore the admission requirements) do not change in the meantime, the applicant's case does not have to be re-checked completely though. In summary, we would like to encourage potential applicants to plan the whole process thoroughly and to only apply if they are sure that they can actually start their studies at Trier University in the semester for which they apply.

#### 5.4 uni-assist

As of 15 January 2020, Trier University does not cooperate with Arbeits- und Servicestelle für ausländische Studienbewerbung (uniassist e.V.). Therefore, if you want to apply for this programme, you cannot do so using their services.

### 6 Fees

International students have to pay an application processing fee once (as of January 6, 2020, this amounts to 50 EUR). Please do not transfer this amount unless you have either been explicitly told to do so by the application portal and/or administrative staff. Trier University does not charge tuition fees. However, students pay a relatively small semester fee each semester (approx. 250 EUR). This fee covers public transport by bus and train in the region, discounted prices for food and drinks on campus, access to computer pools, etc. The first semester fee is a bit higher as it includes the cost of a student ID card, etc.

# 7 Double degrees

Ambitious students may follow a double degree programme with certain other master programmes (e.g. combining the M.Sc. Applied Statistics and the M.Sc. Data Science). This clearly leads to a longer study time and a larger workload for students. As a rule of thumb, UP TO 50 credit points (out of the 120 credit points per programme) can be shared between programmes. Details can be discussed with the academic student advisor.

## 8 Scholarships

Trier University does not provide any scholarships. Please contact potential national and international funding organisations individually. However, Trier University can assist in finding scholarships once you are a student here: https://www.uni-trier.de/index.php?id=71314 (website only in German as of January 7, 2020).

### 9 Jobs

If you plan to take a job besides your studies, we **cannot assist you** in finding one.

### 10 Ph.D. studies

You cannot centrally apply for Ph.D. student positions as there is currently no structured Ph.D. programme in Statistics at Trier University. Open Ph.D. student positions (*Stelle als Wissenschaftliche/r Mitarbeiter/in*) are regularly posted as job vacancies on Trier University's main website (https://www.uni-trier.de/index.php?id=12072) or on the website of the Economic and Social Statistics Department. Unsolicited applications for Ph.D. student positions are very uncommon in Germany.

### 11 Consultation

Please first note that academic and administrative university staff has many different duties and that the counselling of potential applicants and students is usually only a small part of said duties. Additionally, the interest in this master programme is very strong, leading to many inquiries per day. Accordingly, we would like to kindly ask you to gather the necessary information using this document, the website of the Economic and Social Statistics Department, and the general website of Trier University (see Section 12). Clearly, if a certain piece of information is still missing, please do not hesitate to contact us. We are happy to help you. But please make sure that the information is really not to be found in the given resources and links first. This ensures a swifter processing of your application and reduces staff workloads. Depending on the nature of your remaining question(s), there are two ways of communication open to you, as detailed in the following two subsections. Finally, please note that neither the academic student advisor nor the university administration staff can give you final information on admittance to the programme, as detailed in Section 2. The final decision is up to the examination board.

#### 11.1 Academic matters

If you have additional questions regarding the master programme itself and its academic contents, please contact the **academic student advisor** of the master programme Dr. Florian Ertz. You can reach him using the following e-mail address: statistics@uni-trier.de.

## 11.2 Administrative/procedural matters

If you have additional questions regarding administrative/procedural matters related to your application (i.e. non-academic matters), please contact the **Studierendensekretariat** (Admissions Office) of Trier University. Some typical *examples* of such questions are the following ones:

- Does my specific school count as a foreign university?
- How can I transfer my local credits to the ECTS?
   → This information should be available online, though.
- I have a specific question regarding Trier University's application portal. Can you help me out?

You can contact administrative staff members in the Admissions Office of Trier University who deal with international applicants using the following e-mail address: admission@uni-trier.de.

German applicants should look for their contact person in the section *German applicants and students* on https://www.uni-trier.de/index.php?id=6072&L=2.

### 12 Some useful links

The website of the Economic and Social Statistics Department can be reached here:

https://www.uni-trier.de/index.php?id=35894&L=2.

Trier University's general website can be reached here:

https://www.uni-trier.de/index.php?id=1&L=2.

Some general information for international applicants can be found here:

https://www.uni-trier.de/index.php?id=50869&L=2.

**Information on living in Trier** (including, e.g., accomodation, insurance, etc.) can be found here:

https://www.uni-trier.de/index.php?id=67034&L=2.

# **Appendix**

The following are some examples of courses that count towards the 24/30 credit points that have to be earned in mathematics or quantitative methods or statistics if your degree is not explicitly listed in the first three bullet points in Subsection 2.1. Please see also remarks in Subsection 2.1.

#### Mathematics:

Calculus; Differential Equations; Linear Algebra; Linear Programming; Mathematical Modeling; Numerical Mathematics; Real and Complex Analysis; Stochastics

#### Quantitative methods:

Empirical Economics; Empirical Sociology; Operations Research

#### Statistics:

Descriptive Statistics; Econometrics; Inferential Statistics; Probability Theory