




# Applying for Master's & Ph.D. Positions at RWTH Aachen University:

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# MAP OF WESTERN EUROPE SHOWING AACHEN'S LOCATION



# Why RWTH Aachen University?

- One of Germany's largest technical universities, founded in 1870
- University of Excellence since 2007
- Some stats<sup>2</sup>

## At a Glance: The Best Results From the Latest Rankings



<sup>2</sup>Source: *Our Rankings in a Nutshell*, February 2026, RWTH Aachen University, Department 6.0.

# Why RWTH Aachen University?

- 44,382 students in the winter semester of 2025/2026, including 15,811 international students from 141 countries
- Strong research profile in Mathematics, Engineering, Natural Sciences, and Economics/MBA/Business Math.
- **No tuition fees** for international students, only semester contribution: 358,34€ (AStA + Mobility + Social Contributions)
- Rich network of industry partners and research institutes
- Located in Aachen, at the heart of Europe (border region DE/NL/BE)

# Information on Ph.D. / Doctoral Studies

## Ph.D. / Doctoral Studies

- Data Science/Statistics/Stochastics: Institute of Statistics, Chair of Appl. Econometrics, Chair of Medical Statistics.
- **Doctoral positions:** RWTH Jobportal or by directly contact professors.
- **DAAD Scholarships:** DAAD (Germany Academic Exchange Service) supports ca. 100,000 students each year.
- **Prerequisite:** Master's degree (or equivalent) in a relevant field, evaluated by RWTH's International Office.
- **How to succeed:** Consider to submit a research proposal to a potential supervisor. Connect to the papers / topics. Demonstrate that you know and understand the research (questions).
- Depending on grants/projects you may work on a funded research project.
- Many doctoral candidates are (partly) employed as **scientific assistants** (Wissenschaftliche Mitarbeiter) with teaching load.

# Information on Ph.D. / Doctoral Studies (ct.)

## Ph.D. / Doctoral Studies

- Duties may include teaching (math and service courses).
- Duration for Ph.D.: Usually 3-6 years.
- RWTH Doctoral Academy: Mandatory and voluntary courses for transversal skills (soft skills), career planning, language, scientific writing, soft skills, ...
- Doctoral regulations (*Promotionsordnung*) of the relevant faculty apply

# Information on Ph.D. / Doctoral Studies (ct.)

## Ph.D. / Doctoral Studies

We look for...

- talented, motivated and engaged students.
- Experience can be substituted by promise.
- Holistic approach: 1) theory, 2) applications, 3) simulations, 4) real data examples.
- Mathematicians should be interested in applications (and willing to do such work).
- Data Scientists should be interested in theory (and ready to dive in).

Recommendations for application:

- Write an abstract of your Master Thesis.
- Consider to submit full PDF of your thesis.
- Letter of motivation.
- List teaching experience.

# Recommended Timeline for Winter Semester 2027/2028

<b>When</b>	<b>Action</b>
12–18 months before	Check M.Sc. programs, DAAD scholarships, job announcements, contact potential supervisors (PhD)
12 months before	Register / prepare for GRE and/or language tests
9–12 months before	Prepare documents, certified translations
By March 1	Submit application via RWTHonline
4–8 weeks after	Track status in RWTHonline portal
After admission letter	Apply for student visa immediately and start looking into housing in Aachen
4–12 weeks before start	Open blocked account; arrange health insurance
Upon arrival	Register with city ( <i>Einwohnermeldeamt</i> ), apply for residence permit

# Master Programs

## Master's Programs

### Relevant Master Programs

- M.Sc. Mathematics
- M.Sc. Applied Mathematics
- M.Sc. Management Science & Mathematics (Business Mathematics)
- M.Sc. Data Science
- M.Sc. Business Administration

# General Formal Admission Requirements: M.Sc.

## Master's Programs

- **First university degree (Bachelor's)** from a recognized/accredited university
- Degree must be **subject-relevant** (consecutive principle)
- Good academic performance required (Total grade of 2.5 or better, german standards)
- All applications submitted online via RWTHonline **by the Deadline:**  
Summer 2027: 01.06.26 - 01.09.26  
Winter 2027/2028: 01.12.26 - 01.03.27
- No application fee

### Important

The exam board (*Prüfungsausschuss*) of each department decides on the recognition of foreign degrees and the fulfillment of subject-specific requirements.

# Language Requirements (M.Sc.)

## English-taught programs

Accepted certificates (min. level):

- TOEFL IBT: Points  $\geq 90$
- IELTS: Score  $\geq 6.0$
- Cambridge B, C<sub>1</sub> Advanced, C<sub>2</sub> Proficiency
- PTE: Points  $\geq 60$
- UNiCert II or higher
- RWTH Language Center placement test:  $\geq B_{2.2.1}$

Exemptions: undergraduate degree taught entirely in English at a recognized English-language institution (UK, Ireland, USA, Canada, NZ, AU)

## German-taught programs

Accepted certificates:

- DSH: Stage 2
- TestDaF: Level  $\geq 4$  (all parts)
- Goethe-Zertifikat:  $\geq C_1$
- Austrian language diploma: C<sub>1</sub>
- Telc Deutsch C1 Hochschule
- DSD II

## Recommendation:

Even for English-taught programs, basic German (A1–B1) is strongly advised for daily life, job prospects, and residence permit procedures.

# Subject-Specific Requirements

## M.Sc. Mathematics

- **Formal requirement:** First university degree (Bachelor's) in Mathematics or a closely related field
- **Non-EU/EEA applicants** must provide proof of the **GRE Subject Test in Mathematics**
- Applicants must be able to submit proof of knowledge in the following areas:
  - Analysis with at least 24 ECTS
  - Linear Algebra with at least 18 ECTS
  - Numerical Analysis with at least 9 ECTS
  - Stochastics with at least 9 ECTS
  - Additional modules (algebra, functional analysis, ODE, graph theory, topology, ...) with at least 27 ECTS
- Applications: RWTHOnline

# Subject-Specific Requirements

## M.Sc. Applied Mathematics

- RWTH offers **Applied Mathematics as a specialization track** within the M.Sc. Mathematics
- Language of instruction: partially **German**, partially **English** (program-dependent)
- Same formal entry requirements as M.Sc. Mathematics (incl. GRE Subject Test for non-EU/EEA)
- Module structure: pure mathematics + applied mathematics + concentration area
- Specialization possible in: numerical methods, optimization, stochastics, differential equations
- Minors (application subjects) available *in English*: Physics, Computer Science, ...
- Master's thesis can be written in cooperation with research institutes
- Final decision on equivalency of foreign degrees:  
*Prüfungsausschuss*, Dept. of Mathematics

# Subject-Specific Requirements

M.Sc. Management Science & Mathematics (Business Mathematics)

- Interdisciplinary program combining **Mathematics and Economics**
- Achievements must be comparable to RWTH's own Bachelor's in Business Mathematics / Mathematics and Management Science
- **GRE General Test** required with following minimum criteria:
  - Quantitative Reasoning:  $\geq$  75th percentile
  - Verbal Reasoning:  $\geq$  15th percentile
  - Analytical Writing:  $\geq$  3.5 points
- Program mainly taught in **English**; some courses held in German
- Covers: finance, insurance, data science, operations research

# Subject-Specific Requirements

M.Sc. Business Administration (*M.Sc. Wirtschaftswissenschaften*)

- Bachelor's degree in Business Administration, Economics, or a related field
- Applicants may be required to take a **specialized entrance test** (for Economics programs)
- Strong quantitative background (mathematics, statistics) is an advantage
- Language of instruction: partially **German**, partially **English** (program-dependent)  
⇒ language certificate required accordingly (TestDaF/DSH-2 or IELTS/TOEFL)
- Application: RWTHOnline
- Module catalog / course descriptions of prior degree must be uploaded

# Application Process & Deadlines

## Application Portal

<https://www.rwth-aachen.de> → RWTHOnline Portal

<b>Semester</b>	<b>Admission Period</b>
Summer 2027 (Start in April)	01.06.26 - 01.09.26
Winter 2027/2028 (Start in October)	01.12.26 - 01.03.27

## Required Documents:

- Transcript of records / Diploma supplement
- Bachelor's certificate (if completed)
- Language certificate (English and/or German)
- Tabular Resume (CV)

# Visa Process for Sri Lankan Students

## Step-by-Step Overview

**Required visa type:** German National Student Visa (Type D)

- **Receive admission letter** (*Zulassungsbescheid*) from RWTH
- **Open a blocked account** (*Sperrkonto*) in Germany – currently (2026) minimum 11,904 / year
- **Obtain health insurance** (statutory or private; must cover from arrival date)
- **Book appointment via VFS Global Sri Lanka**

# Visa Requirements for Sri Lankan Students

## Entry & Visa Obligation

Sri Lanka is subject to German visa requirements

(see <https://www.auswaertiges-amt.de/en/visa-service/231148>)

### **Stays longer than 90 days or involving employment/study:**

- You must apply for a **National Visa (Type D)** at the German embassy before travelling
- The visa application must generally be submitted **in person**
- Processing can take **several months** – apply well in advance!
- Appointment waiting times at the embassy can be long; check early

### Useful Links

<https://www.make-it-in-germany.com/en/visa-residence/quick-check>

<https://www.make-it-in-germany.com/en/visa-residence/types>

# Visa – General Requirements

## What You Must Demonstrate

To obtain a long-stay visa, the following general conditions must be met:

- **Secured livelihood:** proof of sufficient financial means including health insurance  
(e.g. blocked account – *Sperrkonto*)
- **Identity and nationality** must be verifiable
- **Valid passport** (or equivalent travel document)
- No grounds for expulsion
- Your stay must not endanger the interests of the Federal Republic of Germany

You must provide details about: purpose of entry, planned location, and duration of stay.

# Visa – Invitation Letter from RWTH

Required for Researchers & Doctoral Candidates

Researchers from non-EU countries need a **written invitation from the host institute** to present at the German embassy.

The letter must be issued on **official institute letterhead** and include:

- Name of the researcher
- Duration of stay at RWTH Aachen
- Purpose of stay (e.g. doctoral studies, research visit)
- Financing details – if employed as academic staff: **exact salary and type of employment contract**

# Visa – Residence Permit & Doctoral Study Options

## After Arrival in Germany

The Type D visa is typically valid for **90 days** (up to 1 year for study/employment).

**Within the visa validity period: apply for residence permit at *Ausländerbehörde*.**

**Type of residence permit** for doctoral candidates depends on your situation:

- Employment contract or research agreement  
→ permit for **employment/research purposes** or **EU Blue Card**
- Half-time position or less  
→ permit for **study purposes** may apply
- Scholarship holders  
→ permit for **study purposes**
- Own savings / parental sponsorship also possible for financing

Note: You may start work or studies already with the visa, before the permit is issued.

# Health Insurance in Germany

**Health insurance is mandatory** for all residents in Germany – required for visa, enrollment, and residence permit.

## Public (Statutory) Insurance

*Gesetzliche Krankenversicherung – GKV*

- For students **under 30** in regular degree programs
- $\approx$  120–150€/month (incl. nursing care, 2025)
- Comprehensive coverage: GP, hospital, medication, dental, mental health
- Recommended providers: **TK**, BARMER, AOK, DAK

Alternatively: Private Insurance

Travel insurance or limited-coverage policies are **not** accepted for visa or enrollment purposes.

## Key fact

The housing market in Aachen is very **competitive!**

## Main options:

- 1 **Studierendenwerk Aachen** (student union dormitories)
  - Apply as early as possible; only  $\approx 10\%$  of students receive a place
  - Bachelor's & Master's students under 30; rental contract up to 3.5 years
  - Apply via: [www.studierendenwerk-aachen.de](http://www.studierendenwerk-aachen.de)
- 2 **Quota rooms via RWTH International Office** (268 rooms)
  - Reserved for exchange students and scholarship holders
- 3 **Private dormitories & Catholic University Community (KHG)**
  - KHG: 175 rooms,  $\approx 230\text{--}330\text{€}/\text{month}$
- 4 **Private rental market** (WG – shared flat / private apartment)

# Housing – Costs & Practical Tips

Type	Approx. monthly cost
Student dorm (Studierendenwerk)	230–400€
Private dormitory (KHG, etc.)	230–330 €
RWTH International Academy rooms	555–750 €
Shared flat (WG) private market	400–600 €
Private apartment (1-bedroom)	650–900+ €

## Tips:

- Contact **RWTH Housing Advice Service** (International Office) for consultations
- Ph.D. candidates / researchers: contact **Welcome Center for International Researchers**
- Use official portals; beware of scams – never transfer money without viewing the room
- Register your address at the *Einwohnermeldeamt* within 2 weeks of arrival (legally required)

# Financial Planning – Cost of Living in Aachen

Item	Approx. monthly cost
Accommodation	300–600€
Food	200–300€
Health insurance	120–150€ (statutory, under 30)
Books / study materials	20–50€
Personal / leisure	100–200€
<b>Total estimate</b>	<b>800–1200 € / month</b>

- **Blocked account requirement:** 11904€/year (992€/month) for visa
- **Semester contribution:**  $\approx 358,34$  € (includes student services & transport)
- Part-time work: max. 120 full days or 240 half-days per year (not self-employed)
- **Scholarships:** DAAD, Deutschlandstipendium, faculty-specific programs

# First Steps After Arrival in Germany

## Mandatory Registration Tasks

### 1 Register at the residents' registration office (*Einwohnermeldeamt*)

Mandatory within **2 weeks** of moving in. You need a landlord confirmation (*Wohnungsgeberbestätigung*). You receive a *Meldebescheinigung* (certificate of registration) – required for banking, permits, and more.

### 2 Apply for a residence permit (*Ausländerbehörde*)

As a non-EU citizen you must register in person. The permit is issued as an electronic card (*elektronischer Aufenthaltstitel*).

### 3 Health insurance – must already be arranged before arrival

Either statutory (*gesetzlich*) or private (*privat*) – required for enrollment and residence permit.

# First Steps After Arrival in Germany

## Additional Important Tasks

- **Tax identification number** (*Steueridentifikationsnummer*)

Automatically assigned once you are registered. Can be requested online via the Federal Central Tax Office. Valid for life; needed for employment and banking.

- **Open a German bank account**

Strongly recommended for longer stays. Required to receive salary, scholarship payments, or pay rent. Simplifies all financial transactions.

- **Check your driving licence**

You may drive with a foreign licence for up to **6 months** in Germany. After that, you may need to obtain a German driving licence.

More info: <https://www.bamf.de/DE/Themen/MigrationAufenthalt/ZuwandererDrittstaaten/Migrathek/ErsteSchritte/ersteschritte-node.html>

# Support & Useful Contacts at RWTH

Office / Resource	Contact
RWTHonline (applications)	<a href="http://online.rwth-aachen.de">online.rwth-aachen.de</a>
International Office	<a href="mailto:int-zugang@rwth-aachen.de">int-zugang@rwth-aachen.de</a>
Housing Advice Service	<a href="mailto:housing@rwth-aachen.de">housing@rwth-aachen.de</a>
Welcome Center (Ph.D./Researchers)	<a href="mailto:welcome@rwth-aachen.de">welcome@rwth-aachen.de</a>
Studierendenwerk (housing)	<a href="http://www.studierendenwerk-aachen.de">www.studierendenwerk-aachen.de</a>
Dept. of Mathematics	<a href="http://www.mathematik.rwth-aachen.de">www.mathematik.rwth-aachen.de</a>
DAAD (scholarships)	<a href="http://www.daad.de">www.daad.de</a>
German Embassy Sri Lanka	<a href="http://www.colombo.diplo.de">www.colombo.diplo.de</a>

## Final Advice

Start preparations **12–18 months before** your intended start date. Contact potential supervisors early, apply by **March 1** (Winter Semester), and start your housing search at least **2–3 months before arrival**.

# Key Links & Resources

## **RWTH Aachen:**

*Facts & Figures:* <https://www.rwth-aachen.de/cms/root/wir/profil/~enw/daten-fakten/?lidx=1>

*Admission (Master's, international):*

<https://www.rwth-aachen.de/cms/root/studium/vor-dem-studium/zugangsvoraussetzungen/zugangsvoraussetzungen-fuer-den-master/~dkzf/zugangsvoraussetzungen-fuer-international/?lidx=1>

*Language requirements:* <https://www.rwth-aachen.de/cms/root/studium/vor-dem-studium/zugangsvoraussetzungen/~zwyn/sprachkenntnisse/?lidx=1>

*RWTH Job Portal (PhD):* <https://www.rwth-aachen.de/cms/root/wir/Karriere/~buym/RWTH-Jobportal/>

## **Visa & Residence:**

*BAMF entry requirements:* <https://www.bamf.de/EN/Themen/MigrationAufenthalt/ZuwandererDrittstaaten/Migrathek/Einreisebestimmungen/einreisebestimmungen-node.html>

*Make it in Germany – Visa types:* <https://www.make-it-in-germany.com/en/visa-residence/types>

## **Finance & Student Services:**

*Semester fees:* <https://www.asta.rwth-aachen.de/en/about-us/finance/>

*DAAD scholarships:* <https://www.daad.de>

# Summary – Key Steps

- 1 **Choose program** and verify subject-specific requirements (*Prüfungsausschuss*)
- 2 **Take required tests** (GRE Subject/General, IELTS/TOEFL) well in advance
- 3 **Apply online via RWTHonline** – deadline **March 1** (Winter Semester 2027/2028, non-EU/EEA)
- 4 **After admission letter:** open blocked account + arrange health insurance
- 5 **Apply for National Visa (Type D)** at German Embassy – allow at least 3 months
- 6 **Search for housing** in Aachen – start at least 2–3 months before arrival
- 7 **Arrive, register address** at *Einwohnermeldeamt* within 14 days
- 8 **Apply for residence permit** at *Ausländerbehörde*
- 9 **Open bank account**, obtain tax ID, enroll at RWTH – begin your studies!