

BMS PhD Application Guidelines



Dear Applicant,

The BMS Application Guidelines are designed to help you complete your application to the Berlin Mathematical School (BMS), but before you begin we would like to offer you some encouragement and advice.

We are pleased that you are considering the BMS for your graduate studies. The BMS presents exceptional opportunities and offers students the academic and intellectual resources of three universities. However, before applying for admission, you should find out if the BMS program actually meets your interests and needs. Please make sure that our program has scholars working actively in the mathematical fields that you are interested in.

Consult your professors or any contacts you may already have in Berlin. Browse our website where you will find important information about the BMS study program, current seminars and ongoing activities. Visit the websites of our faculty members and current students. It is in your interest, as well as ours, that the most highly qualified and motivated candidates find the best match at the BMS for their research interests.

Working towards a PhD is more than a continuation of your previous studies. During your graduate education, you will develop the capacity for independent research by working closely with a scholar, or a small group of scholars, whose work can serve as a model for yours. It is a transition period, by the end of which you will become a colleague to your professors. Achieving this requires more than completing courses, accumulating credits and passing prescribed examinations. Such a position is earned by commitment to the difficult, but fulfilling craft of independent research, through which you will demonstrate the ability to make an original contribution to knowledge.

Meeting this challenge requires a personal sacrifice of time, leisure, and of immediate rewards, but the achievement is well worth the cost in terms of intellectual satisfaction and the opportunity to expand the boundaries of knowledge.

Before resolving to set out on the path to a doctoral degree, please reflect on the commitment that will be required. If you think you have the level of commitment sufficient to sustain you through several years of intense and concentrated work and study, then we very much welcome your application.

Günter M. Ziegler (Chair)
Jürg Kramer (Deputy Chair)
John M. Sullivan (Deputy Chair)

BMS PhD Application Guidelines

A. GENERAL INFORMATION	2
B. DOCUMENTS REQUIRED TO APPLY	3
i. Online Application Form	4
ii. Two Letters of Recommendation	4
iii. Statement of Financial Resources	4
iv. Personal Statement	5
v. Curriculum Vitae	5
vi. University Transcripts	5
vii. Proof of Proficiency in English	6
viii. Research Statement - Phase II applicants only	6
C. ADMISSION DECISIONS	7
D. USEFUL HINTS	7
E. ADMISSION SCHEDULE	8
F. DEGREE	9
G. BMS STUDY PROGRAM	9
H. CONTACT US	10

A. GENERAL INFORMATION

The BMS PhD Application Guidelines are designed for applicants who wish to apply to the BMS doctoral program. We hope that you will find them useful when preparing your application. Should there be anything missing here that you would like to know about, please let us know by contacting us at the BMS One-Stop Office. We will be happy to answer any questions you may have. The address and other contact details of the BMS One-Stop Office can be found on the last page of these guidelines.

Before compiling your application materials, we recommend that you read the **BMS Study Regulations** and inform yourself about the requirements of our program. You will find them here: www.math-berlin.de/students/program-information. The application period for the academic year 2017/18 (2017 winter semester / 2018 summer semester) will start on 15 September 2016 and end on 1 April 2017. Applicants who require a scholarship must submit their application by 1 December 2016.

BMS PhD Application Guidelines

Please use our online application form to apply for the BMS PhD Program. Before you can access the form, **you first have to register with us on our homepage:** www.math-berlin.de.

Students wishing to enter Phase I of our program are expected to have a Bachelor's degree or equivalent. Berlin mathematics students in their *Hauptstudium* can apply for membership to the BMS. For students who are further advanced, part of the Phase I course requirements may be waived.

To enter Phase II, students are expected to have a Master's, a German *Diplom* or an equivalent degree. BMS Phase I students are required to pass the BMS Qualifying Exam. In addition, Phase II students must satisfy the usual admission requirements for entry to the PhD program of the Berlin universities. Relevant information can be downloaded here: www.math-berlin.de/about-bms/downloads.

It is not necessary to wait until you have completed your degree before you submit your application, but you must have completed your degree by the time you start at the BMS. For example, if you are scheduled to finish your Bachelor's degree before October 2017, you may apply for Phase I even though you hold no degree at the time of application. If you are pursuing a Master's degree that will be completed before October 2017, you must apply for Phase II of the BMS PhD Program.

The result of all applications submitted by 1 December will be decided by March. You will receive notification by e-mail about the admission decision, therefore we kindly ask you to refrain from making e-mail or telephone enquiries about your result.

The academic calendar at the BMS is set in accordance with its three supporting universities (*Freie Universität, Humboldt-Universität, Technische Universität*):

Winter semester 2017/18:	01 Oct 2017 – 31 Mar 2018
Lectures:	16 Oct 2017 – 17 Feb 2018
Summer semester 2018:	01 Apr 2018 – 30 Sep 2018
Lectures:	16 Apr 2018 – 21 Jul 2018

B. DOCUMENTS REQUIRED TO APPLY

- i. Online Application Form
- ii. Two Letters of Recommendation (pdf)
- iii. Statement of Financial Resources (online form)
- iv. Personal Statement (pdf)
- v. Curriculum Vitae (pdf)
- vi. University Transcripts (pdf)
- vii. Proof of Proficiency in English (pdf)
- viii. Research Statement - Phase II applicants only (pdf)

Native speakers of German may submit their application in German.

BMS PhD Application Guidelines

i. Online Application Form

The online application form must be fully completed, contain all the required documents listed above, and submitted by the deadline in order for the application to be considered. You may submit **only one** application.

To access the online application form, you first have to register with the BMS via our homepage www.math-berlin.de. Once you have registered and logged in, click on "PhD Application" in the left menu bar to access the online application form. Please complete all sections of the form and upload all required documents. If you do not wish to complete the application in one session or if you plan to attach the required documents later, just click the "Save" button and return to it later.

Once you submit your application you will neither be allowed to make any changes, nor upload any further documents to your online file. We therefore recommend that you to do the following before submitting your application:

- check that you have filled in the online application form correctly
- make sure that the documents you have chosen to upload are **not** corrupted, **not** password-protected and **no larger** than 1.5 MB each.

After you submit your application, the BMS will contact your recommenders to ask for a letter of recommendation for you.

In case of any technical problems with the online form, please contact us at: applications@math-berlin.de.

ii. Letters of Recommendation

Two letters of recommendation are required. Your recommenders must be faculty members, professors, or university teachers who know you well and can vouch for your academic and mathematical abilities. When applying, please supply the recommender's name, institution and e-mail address. Once you have submitted your online application, each recommender will receive an e-mail directly from the BMS with directions on how to proceed. We will also inform them that the deadline for their letters is one week after your online application deadline.

Please note that it is your responsibility to remind your recommenders of this fact, since recommendations received after that deadline may adversely impact the evaluation of your application and hinder your chance of admission.

We do not accept recommendations submitted by the applicants themselves!

iii. Statement of Financial Resources

A short statement about your financial resources is required from all applicants. Please indicate how you plan to finance your studies by answering the following:

- What steps have you taken to secure funding for your studies?
- Will a scholarship be necessary to enable you to come to BMS?

BMS PhD Application Guidelines

iv. Personal Statement

Your personal statement (*Motivationsschreiben*) should be at least **one full page** or at **most two pages long**. It should describe your academic and career plans as well as your motivation and scientific interests.

The BMS embraces diversity and due to our goal of striving to achieve a student body of 50% female students, we strongly encourage female applicants in particular to write confidently about their achievements.

Make your personal statement stand out:

- by describing your motivation and enthusiasm for mathematics,
- by showing the depth and breadth of your interest in the subject,
- by explaining what inspires you to continue studying math,
- and by demonstrating your commitment and your potential to excel.

When writing your personal statement, make sure you also provide answers to the following questions:

- What are your mathematical interests?
- How, where, and when did they develop?
- What mathematical fields are you particularly interested in and why?
- Why do you think the BMS is the right choice for you?
- Which BMS faculty member would you like to work with and why? (Phase II)

Please prepare your personal statement as a pdf file, as you will be asked to upload it to your online application.

v. Curriculum Vitae (CV)

Your curriculum vitae (*tabellarischer Lebenslauf*) should be one or two pages in length and list the details of your education to date, together with your personal academic history, including academic credentials, publications, contributions or other significant achievements. Please prepare your CV as a pdf file, as you will be asked to upload it to your online application.

vi. University Transcripts

You must submit one official transcript from **every** university or college you have attended. If your transcripts are not in English or German, an **official translation** is also required. To prevent delays, you should arrange with your university registrar to provide transcripts as soon as possible, or else you should submit preliminary transcripts showing as many grades as possible. Please prepare your transcripts as pdf files, as you will be asked to upload them to your online application.

BMS PhD Application Guidelines

vii. Proof of Proficiency in English

Applicants whose native language is neither English nor German, and who have not completed their formal education in a school, college or university where English was the language of instruction, must submit official proof of their English proficiency in the form of one of these tests:

1. TOEFL (Test of English as a Foreign Language)
 - Internet-Based Test (iBT) minimum score 79
 - Computer-Based Test (CBT) minimum score 213
 - Paper-Based Test (PBT) minimum score 550

Have your score sent directly to the BMS using our TOEFL code: 2593
2. CAE (Certificate in Advanced English) minimum Level C
3. IELTS (International English Language Testing System) minimum score 6.5 in the Academic Test.

Test results that are more than two years old are not valid and will not be considered. Please prepare the relevant document as a pdf file as you will be asked to upload it to your online application.

If your native language is neither English nor German, but you have completed your formal education at a school, college or university where English is the language of instruction, then please submit a certificate from the institution to confirm this. The certificate will suffice as proof of your English proficiency and one of the aforementioned tests will not be required.

If your native language is German, your *Abitur* or *Matura* grade in English will serve as proof of English proficiency. We require a grade of at least *befriedigend* or equivalent. If you cannot submit a copy of your *Abitur* or *Matura*, or it does not show a grade for English, then you must submit the result of one of the aforementioned tests.

viii. Research Statement - Phase II applicants only

Phase II applicants should already be knowledgeable in their research area and have an idea with whom they would like to work at the BMS. We expect the research statement to be **at least one page, but maximum two pages long**. It should explain the applicant's ideas with respect to his/her future dissertation, as well as outline the underlying research project. While applicants should be familiar with the research of potential supervisors, prior contact with BMS faculty members is not necessary, however the applicant should mention who could be a suitable supervisor. A description of all BMS research areas is here www.math-berlin.de/academics/research and the list of BMS faculty members can be found here: www.math-berlin.de/bms-faculty.

Please have your research statement ready as a pdf file, as you will be asked to upload it to your online application.

**Please note that applications which remain incomplete
by the submission deadline will not be considered!**

BMS PhD Application Guidelines

C. ADMISSION DECISIONS

The Admissions Committee of the Berlin Mathematical School evaluates all applications. The committee comprises BMS faculty members from the math departments of the three participating universities. The result of all applications submitted by 1 December will be decided in March. All applicants will receive notification by e-mail about the admission decision by mid-March. Please rest assured that we will inform you as soon as a decision has been made and we therefore ask you to refrain from making e-mail or telephone enquiries about your result.

The decision made by the BMS Admission Committee is based on a careful evaluation of the following criteria:

- Has the application been completed according to section B? (Only complete applications containing all required documents will be considered.)
- Do the recommenders see potential in the applicant to complete a PhD and how do the recommenders rank the applicant amongst his/her cohorts?
- Does the applicant believe he/she can benefit from the uniqueness of our graduate school and be successful in his/her studies at the BMS?
- Do the relevant BMS professors have the capacity to supervise the applicant?
- Does the BMS have enough resources in the chosen field to guarantee the completion of the PhD?
- Does the applicant rank in the top 10% of his/her year? (The BMS converts all grades to the German grading scale according to German Federal Regulations and only the best 40 applications in each of the Phase I and Phase II categories will be considered further.)

D. USEFUL HINTS

1. Applicants who require a scholarship must submit their online application by the first round deadline of 1 December. After that date only a limited number of BMS scholarships will be available.
2. A well-written personal statement that answers all the points on page five will help your application stand out from the rest. We strongly encourage female applicants to write about their achievements with confidence.
3. Submit your application as early as possible! At least one week prior to the deadline is recommended. This will give your recommenders plenty of time to write a letter for you.
4. Language tests should be taken well in advance of the application deadline. It is your responsibility to take a test early enough in order to ensure receipt of the required test score by the application deadline.
5. In general, the BMS admits new students once a year for entry in October. However, exceptions for highly talented applicants are sometimes possible.

BMS PhD Application Guidelines

E. ADMISSIONS SCHEDULE

15 September

Start of the first round for applicants who wish to be considered for admission and a BMS scholarship.

31 October

Proof of proficiency in English must be submitted by 1 December. All non-native English-speaking applicants should arrange to take a language test by 31 October to ensure that their result is available by our deadline.

1 December

First round application deadline: all applicants will be considered for admission and a BMS scholarship.

8 December

Deadline for recommenders to submit their letters of recommendation.

31 January

Preliminary admission decisions are e-mailed to first round applicants in order to allow prospective candidates to participate in the BMS Days and Student Conference from 20 - 24 February 2017.

1 February

The second round for admission begins. Limited scholarships are available.

20 - 24 February

Prospective candidates are invited to participate in the BMS Days and Student Conference during which time they can get to know future professors and classmates, as well as get an impression of the BMS and Berlin's mathematical research activities. The BMS will cover economy class travel and accommodation costs for invited candidates.

15 March

Final admission decisions are e-mailed to all first round applicants by mid-March. Decisions will not be released by telephone or sent by fax. Shortly after the admission decisions have been made, an admissions package will be posted to all successful applicants. Please allow 10 to 14 business days for receipt of the package.

1 April

Second round application deadline: all applicants will be considered for admission, but only a limited number of BMS scholarships will be available.

8 April

Deadline for recommenders to submit their letters of recommendation.

BMS PhD Application Guidelines

15 April

Deadline for first round candidates to accept or decline the offer of admission. The "Statement of Acceptance" form in the admissions package must be returned to the BMS by post or e-mail by 15 April.

15 May

Deadline for students admitted in the first round to register for the BMS Buddy Program and the BMS German Language Course.

31 May

Final admission decisions are e-mailed to all second round applicants by the end of May. Decisions will not be released by telephone or sent by fax. Shortly after the admission decisions have been made, an admissions package will be posted to all successful applicants. Please allow 10 to 14 business days for receipt of the package.

20 June

Deadline for second round candidates to accept or decline the offer of admission. The "Statement of Acceptance" form in the admissions package must be returned to the BMS by post or e-mail by 15 June.

30 June

Deadline for students admitted in the second round to register for the BMS Buddy Program and the BMS German Language Course.

1 September

Deadline for submission of final official transcripts and certificates confirming receipt of degree and/or spring/summer coursework.

F. DEGREE

It is the declared goal of each BMS student to obtain a PhD at one of three participating Berlin universities. Upon successful graduation from the BMS study and research program, the BMS will award a special certificate to each of its graduates.

G. BMS STUDY PROGRAM

The BMS Program is divided into two phases: **Phase I** is a basic graduate course phase, while **Phase II** is the PhD research phase. For more information see:

www.math-berlin.de/students/program-information

A list of classes for each semester can be found at:

www.math-berlin.de/academics/courses

BMS PhD Application Guidelines

H. CONTACT US

The BMS One-Stop Office is your first point of contact for all questions regarding the application and admission process, or regarding studying at the BMS. You can contact us by e-mail, call us, or come by in person. We will be happy to answer your questions.

Good luck with your application!

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