



## Intelligent Adaptive Systems M.Sc.

### Application Information

**Application period:** 15 February – 31 March (winter term)

**Semester start:** October 1st (winter term)

**Language(s) of instruction:** English

### Introduction

The Master in Intelligent Adaptive Systems (IAS) is a 2-year research-oriented program taught entirely in English. This program prepares students for international research or a career in the private sector.

Intelligent systems and robots become a central part of our daily life in the near future. For robots to be accepted in society and social interactions, they have to communicate efficiently and naturally, as well as adapt to changing environments and to different users. Intelligent systems are expected not only to acquire and manage knowledge automatically through a variety of sensors, but also to expand and optimize their behavior over time.

This International Master's program aims to provide students with the ability to create these intelligent adaptive systems and to prepare them for a future market, where intelligent behavior is considered the standard for computer systems. The program includes the core modules Bioinspired Artificial Intelligence, Neural Networks, Machine Learning, and Intelligent Robotics as well as Electives like Knowledge Processing, Natural Language Processing, User Interface Design, Computer Vision, and Robot Technology.

IAS is a highly competitive program that receives hundreds of applications from more than 50 countries every year. Students, both national and international, can profit from an international environment by improving their grasp of the English language and engaging in cultural exchange. This exchange is fostered in seminars and workgroups, where teamwork is promoted, and extended in extracurricular discussions and activities. Through the proximity to current research projects, students have the opportunity of a smooth transition into collaborative research environments and continuing education and study. Further information: [www.master-intelligent-adaptive-systems.com](http://www.master-intelligent-adaptive-systems.com)

### Admission Requirements

The following formal requirements have to be fulfilled in order to apply to the Master's program:

#### University Degree

(1a) A Bachelor's degree with at least 60 ECTS in core computer science courses from the Faculty of Informatics, Mathematics, Natural Sciences, from Universität Hamburg, Germany in



- Informatik (Computer Science)
- Wirtschaftsinformatik (Business Informatics)
- Software-System-Entwicklung (Software-System-Development)
- Computing in Science
- Mensch-Computer-Interaktion (Human-Computer-Interaction)

OR

(1b) A Bachelor's degree in a related field from Universität Hamburg or another University

- insofar as 60 ECTS credit points were acquired in the field of computer science, which is comparable to the curriculum of the BSc "Informatik" (Computer Science) at the Universität Hamburg, Germany.

The selection committee will establish the comparability. If you have not received your degree certificate yet, you can submit it by the end of the first semester of your master's program.

Additional special admission requirements:

(2) English Language Proficiency

English language proficiency can be directly proven using one of the following tests AND having attained the following minimum scores:

- CEFR/TELC: at least B2 in all categories or C1
- IELTS: Overall band 6.5 + B2 (\*with minimum subscores of 6.0 for Listening, Comprehension, Speaking, Writing)
- TOEFL: IBT 90 (\*with minimum subscores of 20 for Reading, Listening, Speaking, Writing - please note that even if you reach all the subscores, you still have to reach the overall minimum score), PBT 575, CBT 230
- Cambridge: CAE or CPE

The selection committee may accept native English speakers or people who have lived/studied in an English-speaking country for three years or longer. The selection committee will decide this case-by-case depending on the provided documents. Therefore, please contact the selection committee beforehand [ias-team.inf@uni-hamburg.de](mailto:ias-team.inf@uni-hamburg.de).

For details of the legal basis for this regulation, please see the admission bylaws for your chosen degree program: [www.uni-hamburg.de/zugang-master](http://www.uni-hamburg.de/zugang-master). Please check the website <https://www.master-intelligent-adaptive-systems.com> for a detailed description of how to provide proof of the admission requirements.



## Recognition of transcripts for degree programs completed at foreign higher education institutions

If you obtained your first degree abroad, your certificate will be reviewed during the application procedure in the faculty of your program.

If your degree certificate is not in English or German, please include a copy of a certified English or German translation of this together with your application documents.

## Application

### Online Application

You will need to complete the online application available on Universität Hamburg's application portal during the application period: [www.uni-hamburg.de/online-application](http://www.uni-hamburg.de/online-application). Please create a user account, enter your information online, upload the required documents to your online application and submit your application online.

The application procedure for the master program is an online procedure. This means that you do not need to submit any documents in paper form or via email to Universität Hamburg. Instead, you have to upload the documents. Selection is based on the information you provide online and the documents you upload.

If you want to submit an additional special application (e.g. hardship application), you will need to send this special application separately via the online application portal together with the required proofs as an upload by the application deadline. For more information on special applications, please see [www.uni-hamburg.de/sonderantrag](http://www.uni-hamburg.de/sonderantrag) and [www.uni-hamburg.de/info-master](http://www.uni-hamburg.de/info-master).

### Documents to submit

The complete application process will be via STiNE:

[www.uni-hamburg.de/online-application](http://www.uni-hamburg.de/online-application)

After creating an account and registration, you will have to upload the required documents.

A brief list of all required documents that will have to be uploaded with your application:

- Cover Letter Form with personal information – template provided
- Curriculum Vitae
- Letter of Motivation (max 1.5 pages)
- Proof of English Language Proficiency
- Transcript of Records
- Table proving Bachelor with at least 60 ECTS in core computer science – see template
- Bachelor Certificate if possible, otherwise an official letter by your university stating your expected graduation date and preliminary grade.
- Diploma Supplement
- Your Grade



- Grading Scale
- Recognition of foreign educational qualifications – see Anabin
- Additional Documents

More information on the required documents and templates: <https://www.master-intelligent-adaptive-systems.com/apply-master-intelligent-adaptive-systems/>

Verification of compliance with the original documents will be carried out after the conditional approval. For all documents that are written in languages other than German or English, you need to provide certified English or German translations within your application.

If you want to submit an additional special application (e.g., hardship application), you will need to submit this special application directly via the online application form in addition to the required proofs as an upload by the application deadline. For more information on special applications, please see [www.uni-hamburg.de/sonderantrag](http://www.uni-hamburg.de/sonderantrag) and [www.uni-hamburg.de/info-master](http://www.uni-hamburg.de/info-master).

### **Selection criteria**

If the number of applicants exceeds the number of places available, a selection procedure will be applied:

- 1) The quality and content of the letter of motivation, in particular with regard to the interest in further professional training, with the possibility of a telephone interview to clarify any open questions of the selection committee
- 2) The grade of the bachelor's degree and its comparability with the consecutive bachelor's degree course in Computer Science of the Faculty of Mathematics, Informatics and Natural Sciences at the Universität Hamburg
- 3) Professional experience and international experience relevant to the master's course

All criteria will be assessed according to a grading scale (1-5). Criterion 1) is weighted with 40%, criteria 2) and 3) are weighted with 30% each. Thus, a perfect application will score a total of 100%.

The selection decision is made by a selection committee consisting of three lecturers of the master's degree program Intelligent Adaptive Systems, two of which have examiner qualifications.

For details of the legal basis for this regulation, please see the selection bylaws for your chosen master's program: [www.uni-hamburg.de/auswahl-master](http://www.uni-hamburg.de/auswahl-master)



### Admission and enrollment

Once your application has been reviewed, an acceptance or rejection letter will be made available in your STiNE account under the Dokumente (Documents) tab. Please see the information at [www.uni-hamburg.de/online-application](http://www.uni-hamburg.de/online-application). An enrollment deadline will be indicated in your acceptance letter - please submit the documents required for enrollment by this date. Detailed information about the enrollment process is provided at [www.uni-hamburg.de/masterenrollment](http://www.uni-hamburg.de/masterenrollment).

### Contact

The IAS team can be contacted for questions regarding the application and selection process via e-mail: [ias-team.inf@uni-hamburg.de](mailto:ias-team.inf@uni-hamburg.de).

Please, first check [www.master-intelligent-adaptive-systems.com](http://www.master-intelligent-adaptive-systems.com) for a detailed and full list of the required documents and formal requirements and how to provide evidence.

Last updated: February 2023