

Examination and Study Regulations
for the jointly run international
elite Master's programme
Ecological Forecasting
within the framework of the Bavarian Elite Network (ENB)
at the University of Bayreuth
in cooperation with the Julius Maximilian University of Würzburg
dated 20 March 2026

Pursuant to Article 9 sentence 1 in conjunction with Article 80 paragraph 1 sentence 1 and Article 84 paragraph 2 sentence 1 of the Bavarian Higher Education Innovation Act (BayHIG), the University of Bayreuth hereby issues the following regulations:

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§ 1

General Examination and Study Regulations

¹The international elite Master's programme in Ecological Forecasting at the University of Bayreuth, which is run jointly with the Julius Maximilian University of Würzburg in accordance with Article 6 para 3 sentence 3 of the Bavarian Higher Education Innovation Act (BayHIG), is governed by the General Examination and Study Regulations for Bachelor's and Master's programmes at the University of Bayreuth (APSO). ²Supplementary and deviating provisions for the Ecological Forecasting Master's programme are set out in these regulations.

§ 2

Aims and Structure of the Degree Programme

(1) ¹The interdisciplinary approach of this jointly run, English-taught elite Master's programme equips students with the following skills:

- Research competence:
 - Advanced scientific methods and analytical skills to make ecological forecasts and answer complex ecological questions.
 - Ability to assess economic risks associated with environmentally induced damage.
 - A profound scientific understanding of ecological relationships and the societal consequences of global ecological change.
 - Integration of theory and practice and preparation for cutting-edge research in an emerging field.
 - Ability to carry out further independent scientific work.
- Professional qualifications:
 - Targeted preparation for professional roles in research, environmental management, nature conservation and policy advisory services
 - Ability to provide well-founded forecasts and decision-making frameworks for ecological challenges: opens up career prospects in the public and private sectors.
- Personal development:
 - Strengthening of critical reflection, problem-solving skills and interdisciplinary collaboration.
 - Promotion of independence, responsibility and the ability to act sustainably in a dynamic and complex field.
- Social engagement
 - Developing solutions to environmental problems in order to tackle global challenges

such as climate change and biodiversity loss.

- Actively shaping a sustainable future.

²The jointly run Master's programme in Ecological Forecasting is conducted in English, including all examinations. ³Upon passing the Master's examination, the University of Bayreuth, through the Faculty of Biology, Chemistry & Earth Sciences, awards the academic degree of Master of Science (abbreviated: M.Sc.).

- (2) ¹The regulations governing the internship (module 'Pilot Study') can be found in Appendix 1.
- (3) ¹The jointly run Master's programme must be completed as a full-time programme. ²The programme commences at the University of Bayreuth in the winter semester.

§ 3

Admission to the programme

- (1) The entry requirements for the jointly run Master's programme are:
1. a bachelor's degree in Biology, Geoecology – Environmental Sciences, Philosophy and Economics, Physics, Computational Mathematics, Mathematics, Applied Computer Science or Data, Science and AI from the University of Bayreuth, or an equivalent qualification;
 2. a determination of suitability for the programme through a procedure in accordance with Appendix 2;
 3. proof of English language proficiency at least at level B2 of the Common European Framework of Reference for Languages for applicants who have not obtained either their university entrance qualification or the first degree granting access to the programme in English;
 4. proof of German language proficiency at least at level A1 of the Common European Framework of Reference for Languages for applicants who have not obtained either their university entrance qualification or the first degree granting access to the programme in German. Applicants who do not meet this requirement will be enrolled on condition that they submit proof of the required language proficiency by the end of the second semester at the latest.

- (2) ¹When assessing the equivalence of a qualification, there must be no significant differences in the competences acquired compared to the qualifications referred to in paragraph 1(1). ²Article 86 of the Bavarian Higher Education Innovation Act (BayHIG) applies to the determination of the eligibility for recognition of domestic and foreign qualifications. ³The decision on the equivalence of a qualification is made by the Examination Board.
- (3) ¹If the certificate for the relevant first degree is not yet available, a confirmation stating individual marks for all examinations and academic achievements completed by the application deadline must be submitted. ²These achievements must comprise a total of at least 135 credit points. ³Applicants who meet the requirements set out in sentence 2 and have successfully completed the aptitude assessment in accordance with Annex 2 shall be enrolled on condition that they submit the certificate of the relevant first degree by the end of the second semester.

§ 4

Additions and deviations

- (1) Deviations or additions to § 2 para 1 APSO:
1. Notwithstanding sentence 3, the Examination Board shall consist of five members and one substitute for each member, with at least two members and their substitutes being affiliated with the Julius Maximilian University of Würzburg.
 2. In addition to sentence 4, in the event of a member being unable to attend or stepping down, the Faculty Council shall, at the same time as electing the substitute members, determine a fixed order in which the members of the Examination Board are to be represented or permanently replaced by the substitute members. In the event of the resignation of the Chair or the Deputy Chair, the Faculty Council shall elect a new member for the remainder of the term of office.
- (2) ¹In addition to § 6 APSO, it is possible to sit further examinations in the areas of Themes in Ecological Forecasting and Pilot Study beyond the total of 35 credit points required; Paragraph 3 and § 14 Paragraph 1 APSO must be observed. ²There is no obligation to retake examination components defined in sentence 1 that have been failed. ³The examinations defined in sentence 1 shall be recorded on the transcript, unless the student requests otherwise.
- (3) ¹In addition to § 14 para 1 sentence 1 of the APSO, only the four highest-marked modules in the 'Themes in Ecological Forecasting' module area shall be taken into account when calculating the overall mark, subject to the required credit points. ²Examination components as per paragraph 2 sentence 1 shall not be included in the calculation of the overall mark.
- (4) ¹Notwithstanding § 31 para 2 sentence 1 of the APSO, the chair of examiners shall, taking into account the student's preference, appoint an examiner as supervisor and as external examiner. ²If

the Master's thesis is graded as 'unsatisfactory', it shall be assessed by a second examiner appointed by the chair of examiners.

§ 5

Entry into force

¹These regulations shall enter into force on 21 March 2026. ²They shall apply to students who commence this degree programme from the 2026/2027 winter semester onwards.

Appendix 1: Modules, credit points and examinations

The following lists the module areas, the respective modules, credit points (CP) and the associated examinations.

Modules that have already been taken as part of the underlying Bachelor's programme cannot be recognised or taken again in the Master's programme. Modules that can be assigned to more than one area may only be counted once.

Deviations from or additions to § 9 APSO:

Notwithstanding paragraph 1, sentence 2, examinations may also be conducted in German by arrangement with the examiner.

Abbreviations:

| Vertical lines between examination formats indicate possible alternatives.

* Examination components marked with "*" are not included in the calculation of the module mark or overall mark.

K Written examination

H Term paper

P Presentation

B Contribution

sA Written paper

semA Assignments throughout the semester

CO code	Module area Module	CP	Examination
	Foundations of Ecological Forecasting	40	
Fak229451	Ecological Forecasting	5	H P sA
Fak229453	A Primer in Ecology	5	H P sA
Fak229454	A Primer in Scientific Programming	5	P K semA
Fak229455	Probability Theory	5	P K semA
Fak229457	Deep Learning	5	P K semA
Fak229458	Statistical Modelling	5	H P sA
Fak229471	The Philosophy and Behavioural Economics of Decision Making	5	semA

CO code	Module area Module	CP	Examination
Fak229473	Remote Sensing	5	H P sA
	Themes in Ecological Forecasting	20–30	
Fak229474	Forest Ecosystem Ecology	5	H P sA
Fak229475	Open Ecosystem Ecology	5	B P semA
Fak229476	Systems Ecology	5	H P sA
Fak229477	Aquatic Ecology	5	B P sA
Fak229478	Innovation Projects for Sustainability	5	P sA
Fak229479	Eco-evolutionary Dynamics	5	H P sA
Fak229480	Biodiversity Conservation	5	P sA semA
	Pilot Study	5 - 15	
Fak229481	Pilot Study I	5	sA*
Fak229482	Pilot Study II	5	sA*
Fak229483	Pilot Study III	5	sA*
	Research	15	
Fak229484	Forecasting Challenge	5	P sA
Fak229485	Research Proposal	5	sA
Fak229486	Peer Review	5	sA
	Master's Project	30	
Fak229487	Master's Project	30	Master's thesis
	TOTAL	120	

Module area 'Themes in Ecological Forecasting':

In the module area "Themes in Ecological Forecasting", only the four modules with the highest grades are taken into account in the calculation of the final mark, subject to the required credit points.

Module "Pilot Study":

In the 'Pilot Study' module, students undertake an individual work placement lasting at least three weeks. This is carried out under the supervision of an academic supervisor affiliated with the Ecological Forecasting Master's programme. The "Pilot Study" may be carried out at an external organisation or within a research group led by scientists involved in the programme. In most cases, one or more "Pilot Studies" will form the basis for the Master's project.

The 'Pilot Study' module may be taken as an alternative to the thematic modules. Between one and three 'Pilot Studies' (5 CP each) must be taken.

Appendix 2: Aptitude assessment

1. Purpose of the aptitude assessment

¹In accordance with Article 90 para 1 sentence 2 of the Bavarian Higher Education Innovation Act (BayHIG), eligibility for the jointly run international elite Master's programme in Ecological Forecasting within the framework of the Bavarian Elite Network (ENB) requires, in addition to the prerequisites set out in Section 3(1), Nos. 1, 3 and 4, proof of aptitude in accordance with the following regulations. ²The aim of the aptitude assessment is to open up access to the jointly run elite degree programme Ecological Forecasting (M.Sc.) to qualified students who are particularly motivated to achieve. ³The aptitude assessment plays a special role in interdisciplinary, internationally oriented elite degree programmes because it is aimed at applicants from different academic backgrounds, grading systems and countries of origin.

2. Aptitude Assessment Committee

¹A committee is responsible for the preparation and conduct of the aptitude assessment. ²The committee consists of two lecturers from the University of Bayreuth involved in the programme and one lecturer from the Julius Maximilian University of Würzburg involved in the programme. ³These members shall be appointed by the Faculty Council for a term of five years. ⁴At least one further lecturer from one of the two participating universities shall be appointed as a substitute member. ⁵The committee may include other members of the full-time academic staff who are authorised to conduct examinations. ⁶In this context, the university lecturers must form a majority on the committee. ⁷The members of the committee shall elect a university lecturer from among their number to serve as chair.

3. Procedure for determining aptitude

3.1 ¹The aptitude assessment is held once a year during the summer semester. ²The documents required for admission to the aptitude assessment must be uploaded online via the University of Bayreuth's application portal. ³The documents must be received electronically via the University of Bayreuth's application portal by 15 May of each year for admission to the following winter semester (deadline). ⁴Documents in accordance with sections 3.2.2 and 3.2.3 may be submitted via the application portal by 15 June of each year.

3.2 The following documents must be uploaded:

3.2.1 a detailed written statement in English (max. 2 A4 pages) explaining which specific skills demonstrate particular suitability for the degree programme,

3.2.2 the certificate of the relevant first degree in accordance with § 3, as well as a confirmation with individual grades detailing the examinations and academic achievements completed during the course of study; if the certificate of the relevant first degree is not yet available,

a confirmation with individual grades must be submitted detailing all examination and academic achievements completed by the application deadline (totalling at least 135 credit points),

- 3.2.3 where applicable, evidence of periods spent abroad, work placements and foreign language courses,
- 3.2.4 a tabular CV as supplementary information, intended to provide guidance for the conduct of the aptitude interview (No. 5.2),
- 3.2.5 where applicable, an application for compensation for disadvantages in accordance with § 12 of the APSO.

4. Admission to the aptitude assessment

- 4.1 Admission to the aptitude assessment is conditional upon the documents listed in section 3.2 having been received by the University of Bayreuth via the application portal by the deadline.
- 4.2 The aptitude assessment will be conducted in accordance with section 5 for applicants who meet the necessary requirements.
- 4.3 Applicants who are not admitted will receive a letter of rejection; section 6.2 applies accordingly.

5. Conduct of the aptitude assessment

- 5.1 Pre-selection (first stage of the aptitude assessment)
 - 5.1.1 The committee assesses, on the basis of the uploaded application documents, whether the applicant is suitable for the international elite programme in Ecological Forecasting (M.Sc.) within the framework of the Bavarian Elite Network (ENB), based on their demonstrated qualifications and the specific skills they have outlined. Two members of the aptitude assessment committee will assess the documents independently of one another on the basis of the following criteria:
 - 5.1.1.1 The grade of the relevant first degree or the average grade of the results achieved to date, if the certificate for the relevant first degree is not yet available, is weighted equally. Specific conversion factors may be applied for international applicants.
 - 5.1.1.2 The written statement in accordance with No. 3.2.1, together with the supporting documents in accordance with No. 3.2.3 where applicable, shall be assessed on a scale of 1 to 5 (1 = very good, 2 = good, 3 = satisfactory, 4 = sufficient, 5 = unsatisfactory) and weighted equally; The assessment criteria are the extent to which the

written presentation demonstrates excellent relevant prior knowledge of ecological systems (50%) and the necessary modelling and data analysis skills (50%).

- 5.1.2 An unrounded score, calculated to one decimal place, is derived from the sum of the simply weighted academic performance to date (No. 5.1.1.1) and the simply weighted assessment of the written presentation (No. 5.1.1.2).
- 5.1.3 Applicants whose result is more than 4.0 points or whose written statement has not been awarded a mark of at least 2 (good) will not be considered for the next stage of the procedure. They will receive a letter of rejection; section 6.2 applies accordingly.
- 5.2 Aptitude interview (second stage of the aptitude assessment)
 - 5.2.1 The remaining applicants (4.0 points and below) will be invited to an interview. The date of this interview will be announced at least two weeks in advance. Anyone who fails to attend on the appointed date shall be deemed to have been rejected; No. 6.2 applies accordingly. If the applicant is unable to attend the aptitude interview for reasons beyond their control, an alternative date shall be arranged upon a justified request no later than two weeks before the start of lectures.
 - 5.2.2 The aptitude interview is conducted by two committee members, each with one applicant. The interview lasts at least 15 and no more than 30 minutes, is conducted in English and is intended to demonstrate whether the applicant is expected to achieve the programme's objectives. During this interview, applicants will be questioned on the basis of their application documents to determine whether they possess the outstanding relevant prior knowledge in ecological systems understanding (50%) and the necessary modelling and data analysis skills (50%) required for the Master's Elite Programme in Ecological Forecasting (M.Sc.) within the framework of the Bavarian Elite Network (ENB). The aptitude interview shall be assessed by both examiners on a grading scale of 1 to 5 (1 = very good, 2 = good, 3 = satisfactory, 4 = sufficient, 5 = unsatisfactory). If the marks differ, an average calculated to one decimal place shall be determined. Minutes must be taken of the interview, containing details of the participants, the date, time, location, duration, and an assessment in accordance with section 5.2.3. The minutes must clearly state the topics discussed with the candidate and the reasons for the assessment. The topics and reasons may be listed in bullet points. The minutes must be signed by both examiners.
 - 5.2.3 A score, calculated to one decimal place and not rounded, is derived from the sum of the simply weighted mark for previous academic performance in accordance with section 5.1.1.1 and the simply weighted assessment of the interview in accordance with section 5.2.2, sentences 5 and 6.
 - 5.2.4 The aptitude assessment is successfully completed if the score calculated in accordance with section 5.2.3 does not exceed 4.0 points and the aptitude interview is graded at least 2 (good).

6. Determination and notification of the result

- 6.1 The procedure of the aptitude assessment must be documented; in particular, the committee's decisions in accordance with these regulations and the overall result must be evident.
- 6.2 ¹The results of the aptitude assessment shall be communicated to applicants in writing. ²Rejections must be accompanied by a statement of reasons and information on the right of appeal.
- 6.3 Admissions under the aptitude assessment for the Master's elite programme in Ecological Forecasting (M.Sc.) within the framework of the Bavarian Elite Network (ENB) shall apply to all subsequent applications for this programme, provided that the content and objectives of the programme have not changed so significantly that suitability for this programme can no longer be demonstrated on the basis of the aptitude assessment carried out at an earlier date.

7. Repeat

Applicants who have not demonstrated their suitability for the international Master's Elite Programme in Ecological Forecasting (M.Sc.) within the framework of the Bavarian Elite Network (ENB) may re-register for the aptitude assessment once.

8. Aptitude assessment for higher semesters of study

For applicants wishing to enter higher semesters of study (transfer students, career changers), points 3 to 7 apply accordingly.

Issued pursuant to the resolution of the Senate of the University of Bayreuth of 10 December 2025 and the approval of the President of the University of Bayreuth of 18 March 2026, Ref. A-3720.54 - I/1.

Bayreuth, 20 March 2026

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UNIVERSITY OF BAYREUTH
THE PRESIDENT
[signature]
Professor Dr Dr h. c. Stefan Leible

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