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**General study and examination regulations for Bachelor's and Master's programs
(ASPO) at the University of Applied Sciences (htw saar) for the Neural Engineering
Master's degree program from April 15, 2022**

On April 15, 2022, the Faculty Council of the Faculty of Engineering at Saarland University of Applied Sciences (htw saar) adopted the following amendment to the ASPO for the Master's program *Neural Engineering*. The amendment was issued in accordance with Section 28 (1) No. 1 of the Saarland Higher Education Act (SHSG) of November 30, 2016 (Official Gazette I p. 1080), last amended by Article 5 of the Act of December 8, 2021 (Official Gazette I p. 2629, 2637), and on the basis of the General Study and Examination Regulations for Bachelor's and Master's Programs at the htw saar (ASPO) dated July 3, 2019 (Official Gazette No. 68, p. 742), last amended on January 19, 2022 (Official Gazette No. 28, p. 322).

After approval by the Senate Committee on Teaching, the Minister of Finance and Science, and the Presidium, this amendment is hereby published.

Content:

- 1 Program-specific provisions
 - 1.1 Faculty affiliation
 - 1.2 Admission requirements
 - 1.3 Selection committee
 - 1.4 Program duration, structure, and modules
 - 1.5 Degree, final grade and degree certificate
 - 1.6 Compulsory elective modules
 - 1.7 Project work
 - 1.8 Master's thesis
 - 1.9 Registering for the exam and evaluating the exam
 - 1.10 Part-time study
- 2 Study plan
 1. semester
 2. semester
 3. semester
- 3 Final provisions
 - 3.1 Transitional arrangement
 - 3.2 Entry into force

1 Program-specific provisions

1.1 Faculty affiliation

The English-language consecutive Master's program in Neural Engineering is offered by the Faculty of Engineering at the Saarland University of Applied Sciences (htw saar) and other cooperation partners.

1.2 Admission requirements

- (1) The following qualification requirements apply for admission to the Master's program:
 - a) A Bachelor's degree or diploma (university of applied sciences or university) in biomedical engineering, medical technology, electrical engineering, computer science, technical biology, physics, physical engineering, or similar, or with sufficient additional technical qualifications, including neuroscience, medicine, psychology, physiology, or similar, with at least 210 ECTS credits corresponding to a standard period of study of 7 semesters.
 - b) English language skills at least at level B2 of the European Reference Framework.
- (2) The effective overall grade used as the basis for admission improves on the grade shown in the final certificate for the qualifying degree program referred to in paragraph (1):
 - a) by up to 0.3 if up to 45 ECTS credits were earned in this degree program in a field relevant to the degree program that combines biology and technology, e.g., biomedical engineering, neuroinformatics, or similar,
 - b) by 0.1 if the final thesis was graded "very good" (1.5 or better).
Admission is only possible if the grade obtained in this manner is "good" (2.5 or better).
- (3) The application for admission must be accompanied by a written tabular curriculum vitae and a statement of motivation for the course of study.
- (4) Applicants who do not yet have a Bachelor's degree must demonstrate in their application documents that they have registered for a Bachelor's thesis that will be completed in the current semester, and that they have no more than 45 ECTS credits remaining until completion of said Bachelor's degree.

1.3 Selection committee

- (1) The Faculty of Engineering will establish a selection committee. This selection committee consists of:
A professor from the Faculty of Engineering as chair, and two other professors from the Faculty of Engineering. The term of office is two years respectively. Re-election is possible.
- (2) The decision as to whether the admission requirements specified in Section 1.2 (1) and (2) are met is the responsibility of the selection committee. If the number of eligible applications exceeds the number of available spots, the selection committee will decide on the ranking based on the total scores calculated in accordance with Section 1.2 (2). Applications that do not meet the admission requirements will be forwarded to the Student Services Office together with the selection committee's reasons for rejection.

1.4 Program duration, structure, and modules

- (1) The standard period of study is three semesters, including a project, examinations, and the Master's thesis.
- (2) The program normally begins in the summer semester, however it is possible to start in the winter semester if there are spots available.
- (3) The modules are compulsory or compulsory elective modules. A detailed description of each module's content can be found in the module handbook.
- (4) The individual modules and submodules, their allocation to the academic semesters, the number of weekly hours per semester and ECTS credits, as well as the type of courses and examinations per semester can be found in the study plan in Section 2.
- (5) Students must acquire 90 ECTS credits to successfully complete the program. One ECTS credit corresponds to a workload of 30 hours.
- (6) All classes and exams take place in English.

1.5 Degree, final grade and degree certificate

- (1) Upon completion, the "Master of Science (M.Sc.)" degree is awarded.
- (2) The final grade is calculated from the individual grades weighted with ECTS credits for the required modules that have been successfully completed.
- (3) Additional ECTS credits can be listed on the Master's degree certificate for informational purposes upon request. They are however, not taken into account when calculating the overall grade.
- (4) The name of the degree program will be included in the certificate in accordance with the provisions of the General Study and Examination Regulations for Bachelor's and Master's degree programs at the htw saar.

1.6 Compulsory elective modules

Students must complete compulsory elective modules worth 14 ECTS credits.

1.7 Project work

- (1) The goal of the project work is to apply and deepen the knowledge acquired during the course of study in a practical setting that corresponds to the job profile.
- (2) The project phase lasts six weeks and is worth 9 ECTS credits. As a rule, it takes place in the second semester.
- (3) The project work can be completed in the form of a project study at the htw saar or as part of an internship at a company or other institution. The selection is made in consultation with the program director.

1.8 Master's thesis

- (1) The Master's thesis (30 ECTS credits) must be completed within six months.
- (2) The content of the thesis should be in a subject area closely related to the content of the modules.
- (3) Students must present the results of their thesis in a colloquium.
- (4) As a rule, the thesis is assessed by two examiners. At least one of the examiners must be a full-time university lecturer teaching on the program. A report must be written on the assessment.

1.9 Registering for the exam and evaluating the exam

Registration for exams is regulated by the ASPO. Further information regarding registration can be found in Section 2 of the study plan.

1.10 Part-time study

- (1) Students can complete the degree program on a part-time basis, provided that the htw's currently applicable enrollment regulations (ImO) are met.
- (2) In this case, the standard period of study is 6 semesters.
- (3) Students must agree upon an individual study plan with the examination board before enrolling or re-registering for part-time study.

2 Study plan

All modules are assigned module codes according to the following system:

Module code	Description
NE2snn.XXX	Modules from the Master's program in Neural Engineering

- The first digit (2) stands for the reaccreditation generation (it increases by one with each reaccreditation).
- The second digit (s) stands for the semester.
- The last two digits (nn) increase sequentially.
- In addition, an abbreviation of up to three letters is added for the module name.

Explanations of the tables:

Hours per semester week (SWS):	Total number and distribution of hours per semester week with regard to lectures, exercises, and practical training
ECTS credits	Credit points according to the European Credit Transfer System (ECTS)
V, Ü, P, PJ, S	Type of course: V = Lecture, Ü = Tutorial, P = Lab sessions, PJ = Project, S = Seminar
PL: Examination achievements	K = Written exam, M = Oral examination, P = Project, A = Term paper, PA = Practical examination with term paper, S = Seminar presentation (Weighting factor in percent, if applicable)
WH: Retake date	Retake dates for exams: S = per semester, Y = per academic year
BW: Evaluation	Type of assessment: N = grade, B = passed, without grade (not included in the overall grade), Nb = to be passed, graded partial performance

The modules, submodules, their number of hours, and ECTS credits are specified in the following tables.

1. semester

Module code	Module name	SWS	V	Ü	P	PJ	S	ECTS	PL	WH	BW
NE2101.MAI	Manufacture of Active Implants	2	2					3	M	S	N
NE2102.SIP	Biomedical Signal & Image Processing	5	3		2			6	K	S	N
NE2104.NCS	Neural and Cognitive Systems	5	3		2			6	K(50)+P(50)	S/S	Nb/Nb
NE2105.APP	Auditory Processing and Perception	5	2		3			6	K(50)+P(50)	S/S	Nb/Nb
NE2106.FIN	Functional Imaging in Neuroscience	4	2		2			5	S(50)+S(50)	S/S	Nb/Nb
NE210E	Elective Module	4						4			
		25						30			

2. semester

Module code	Module name	SWS	V	Ü	P	PJ	S	ECTS	PL	WH	BW
NE2201.PW	Project Work	9				9		9	P	S	N
NE2202.SAM	Neural Signal Analysis and Modeling	5	3		2			6	K(50)+P(50)	S/S	Nb/Nb
NE2203.CNP	Clinical Neurophysiology	4	2		2			5	M(50)+PA(50)	S/S	Nb/Nb
NE220E	Elective Module	8						10			
		26						30			

3. semester

Module code	Module name	SWS	V	Ü	P	PJ	S	ECTS	PL	WH	BW
NE2301.THS	Master's Thesis							30	P		N
								30			

3 Final provisions

3.1 Transitional arrangement

For students subject to the ASPO regulations dated October 1, 2019, or October 1, 2020, exams for the first semester modules will be offered for the last time in the summer semester of 2023, and exams for the second semester modules will be offered for the last time in the winter semester of 2023/24.

3.2 Entry into force

This appendix to the General Study and Examination Regulations for Bachelor's and Master's degree programs at the htw saar will be announced by posting it on the "Der Präsident/die Präsidentin" bulletin board and in the official gazette of the universities of Saarland. It comes into effect on April 1, 2023.

Saarbrücken, March 7, 2016

Prof. Dr.-Ing. Dieter Leonhard
President of the htw saar