Subject-Specific Regulations Governing the Master's Degree Programme in Visual Computing Supplementing the Joint Examination Regulations for Bachelor's and Master's Degree Programmes of the Faculty of Mathematics and Computer Science

05 June 2025

Note: This translation is provided for information purposes only. In the event of any discrepancy between the translation and the original German version published in the Official Bulletin (*Dienstblatt der Hochschulen des Saarlandes*), the provisions of the latter shall take precedence.

Pursuant to Section 64(1), first sentence of the Saarland Higher Education Institutions Act (SHSG) (Official Gazette of Saarland I, p. 1080) most recently amended in law by Article 1 of the Act of 10 July 2024 (Official Gazette I, p. 555) and on the basis of the Joint Examination Regulations for Bachelor's and Master's Degree Programmes of the Faculty of Mathematics and Computer Science at Saarland University of 25 February 2021 (Official Bulletin No. 62, p. 580) and with the consent of the Saarland University Senate, the Faculty of Mathematics and Computer Science at Saarland University hereby issues the following Subject-Specific Regulations Governing the Master's Degree Programme in Visual Computing.

Section 27
Scope
(cf. Sec. 1 of the Joint Examination Regulations)

These subject-specific regulations apply to the Master's degree programme in Visual Computing at Saarland University.

Section 28
General information
(cf. Sec. 2 of the Joint Examination Regulations)

The Master's programme in Visual Computing is a more research-oriented postgraduate degree programme.

Section 29
Types of degree programmes
(cf. Sec. 3 of the Joint Examination Regulations)

The Master's degree programme 'Visual Computing' is a single-subject degree programme within the meaning of the Framework Examination Regulations for Bachelor's and Master's Degree Programmes at Saarland University (BMRPO).

Section 30
Student workload
(cf. Sec. 4 of the Joint Examination Regulations)

Course attendance may be compulsory for certain seminars, project seminars, exercise and problem-solving classes and practical skills classes. Students will be notified of this by the instructor at the beginning of the course. The compulsory attendance requirement is normally deemed to have been met if a student was present for at least 85% of the course sessions. If there are reasonable grounds for a student's absence, the student may be offered the option of completing alternative assignments.

Section 31
Examiners; thesis examiners; supervisors, observers (cf. Sec. 8 of the Joint Examination Regulations)

(1) The Examination Board shall appoint examiners drawn from the groups in Section 8(1), items 1 to 7 of the Joint Examination Regulations for Bachelor's and Master's Degree Programmes of the Faculty of Mathematics and Computer Science and, additionally, from the group of mid-level academic staff with the right to supervise doctoral candidates.
The persons specified in items 1 to 8 shall be members of one of the faculties at Saarland University and shall be involved with the content of the Master's programme in Visual Computing.

(2) In addition to the examiners, thesis examiners and thesis supervisors specified in Section 8(2) of the Joint Examination Regulations, the Examination Board may in individual cases and with the consent of those members of professorial staff with responsibility for the relevant subject area also appoint heads of independent junior research groups, members of mid-level academic staff qualified to doctoral level, members of staff qualified to doctoral level at the on-campus research institutes CISPA (Helmholtz Center for Information Security), DFKI (German Research Centre for Artificial Intelligence), MPI-INF (Max Planck Institute for Informatics) or MPI-SWS (Max Planck Institute for Software Systems), as well as other qualified and experienced professionals working in the relevant field.

Section 32
Admission to the Master's programme (cf. Sec. 12 of the Joint Examination Regulations)

(1) Students seeking admission to the Master's programme shall:

1. have a Bachelor's degree or equivalent university qualification in visual computing/computer visualization or a related field (particularly computer science, mathematics, physics, electrical engineering or mechatronics).

2. demonstrate particular academic aptitude (see Section 77(6), second sentence, SHSG).

(2) The following criteria shall be used to assess the applicant's particular academic aptitude:

a. Proof of advanced proficiency in English (typically level C1 of the Common European Framework of Reference for Languages – CEFR)

b. Proof of mathematical competence (discrete mathematics, real analysis and multivariable calculus, linear algebra, numerical methods, stochastics, statistics) by having acquired a total of at least 18 ECTS credits.

c. Proof of adequate prior knowledge in the following fields:

   I. Computer science, particularly programming, algorithms and data structures

   II. Core topics in the field of visual computing (e.g. imaging techniques, image processing, computer vision, pattern recognition, computer graphics, scientific visualization, geometric modelling)

   III. Areas with a connection to visual computing (e.g. data science, artificial intelligence, robotics)

   IV. In fields I to III, applicants must have acquired a total of 27 ECTS credits.

d. A brief written statement in which the applicant outlines their motivation for choosing the programme and summarizes the relevant skills, interests and personal background that they believe make them well-suited to the programme.

e. Two references from experts in the field who know the applicant from an academic context and who can confirm the applicant's suitability for the programme (ideally, one reference should be either from the supervisor of the applicant's Bachelor's thesis, or from a faculty member or a member of a research laboratory).

f. Optional: relevant practical experience of at least six months duration.

(3) The assessment of the applicant's aptitude for the programme will conclude with a final classification of either 'suitable' or 'not suitable'. The assessment of an applicant's particular aptitude must be carried out by a selection committee appointed by the examination board and consisting of at least two members of the university teaching staff.

(4) Applicants who do not meet the admission requirements in full be granted provisional admission to the Master's programme. In such cases, the applicant must have acquired the missing curricular content in fields I to III mentioned in paragraph 2(c), item IV above by the time the applicant registers their Master's thesis.

Section 33
Procedural elements, presentation and layout of the thesis (cf. Sec. 23 of the Joint Examination Regulations)

A colloquium lasting 30 minutes shall be held in order to establish that the Master's thesis is the candidate's own original work. The colloquium shall be held no later than six weeks after the candidate submits the printed version of the Master's thesis. One of the colloquium examiners shall be the person who set the candidate's thesis topic.

Section 34
Successfully completing the Master's programme and overall grade (cf. Sec. 24 of the Joint Examination Regulations)

To graduate 'with distinction', a candidate must have attained a final overall grade of 1.1 or better and must have met all of the programme requirements within the standard period of study.

Section 35
Degree qualification and documentation (cf. Sec. 25 of the Joint Examination Regulations)

In addition to the information presented in Section 25(1) of the Joint Examination Regulations for the Bachelor's and Master's Degree Programmes of the Faculty of Mathematics and Computer Science, the degree certificate may also list other student attainments and the results achieved.

Section 36
Commencement

(1) These regulations shall come into force on the day after they are announced in the Official Bulletin of the Institutions of Higher Education in Saarland (*Dienstblatt der Hochschulen des Saarlandes*).

(2) Students who began studying for their Master's degree in Visual Computing in the Faculty of Mathematics and Computer Science before these regulations entered into force shall continue to study under the study and examination regulations applicable at the time they began the programme, but shall complete their studies including the final academic assessment and examination phase by the end of summer semester 2028.

Saarbrücken, 12 November 2025

Univ.-Prof. Dr. Ludger Santen, President of
Saarland University