

Leaflet for students of the doctoral study programs

This leaflet contains important explanations on the curriculum for the postgraduate program of the Center for Doctoral Studies Lübeck (CDSL), which must be followed.

The imposed conditions on trainings to be taken, require a work performance with an overall level of at least 24 credit points (CP). The smallest CP-unit is 0.25 which corresponds to 7,5 hours (*h*)

- (1) The courses, training sessions and elements from the area of **Disciplinary skills** will be selected from the following elements:
- a) *Seminar with own presentation*: A seminar includes project-specific presentations, in particular, progress reports of the doctoral candidates of an institute, research group, RTG or other graduation program. For 1 CP one must participate for 15 hours (h) and give an own presentation.
 - b) *Journal club with own presentation = discussion of third party publication*: A journal club includes the presentation of a third-party project-related scientific article by doctoral candidates. For 1 CP one must participate for 15 h and give an own presentation.
 - c) *Colloquium, external speaker*: A colloquium includes scientific talks by external guest lecturers. For 1 CP one must participate for 15 h.
 - d) *Active conference attendance with international participation*: For 2 CP an active involvement (own poster or own scientific talk) must be proven. 1 participation with poster and 1 participation with a scientific talk is allowed to be taken into account. The crediting for an active involvement at a symposium and the publication in a conference report [see (2) g)] cannot take place within the same symposium.
 - e) *Project-related lecture/module incl. exam (1 ECTS = 1 CP)*: Project-specific modules from the degree programs of the faculties of Computer Science / Engineering and Natural Sciences and project-specific courses of the humane medicine degree program can be credited. This includes the attendance of a lecture and the participation in practical training or exercises. For a graded performance certificate, a test achievement in the form of an oral examination, a written examination or another written work or assignment must be performed in addition to the participation in the module.
 - f) *Subject-specific workshop participation* (e.g. regarding animal welfare and laboratory animal science, radiation protection, genetic engineering, HPLC techniques, etc.): A successful and regular participation at the workshop must be confirmed by a certificate of participation (15 h correspond to 0.5 CP).
 - g) *Practical training*: A practical training is an attended event (15 hours attendance correspond to 0,5 CP), which conveys practical experiences and methods for scientific work (e.g. focusing on the fields of molecular biology, microbiology, chemistry, robotics, genetics, etc.). The scientific work is summarized in a protocol or, of equal value, the instructions for reproducing the achieved results and will be credited with additional 15 h, in total 1 CP.
 - h) *Professional internship/industrial internship (with a final report)*: For the successful completion of an internship of at least 1 and maximally 6 months, up to 6 CP can be credited (1 month = 1 CP). A professional or industrial internship can be completed in industry or in other areas of economy which do not do research, or in other public research institutions abroad, if the particular academic regulations and procedures provides for this internship possibility.

(2) The courses, training sessions and elements from the area **scientific basics, scientific writing, supervision and teaching**, will be selected from the following elements:

- a) *Project description for doctorate, 6 months after beginning*: At the latest, 6 months after the beginning of the doctoral studies, a project outline should be presented. The project will be discussed subsequently with the supervision committee in an oral presentation/defense. The project outline and its oral presentation are credited with 2 CP.
- b) *Progress reports (min. yearly)*: At least once a year a meeting between the doctoral candidate and the committee of supervisors should take place. The progress report is written by the doctoral candidate and has to be submitted to the committee of supervisors well ahead of the meeting. A member of the committee writes the minutes of the meeting. The developmental progress of the doctoral candidate (scientifically as well as personally) should be the focus of the progress report and the meeting/minutes. This report must be signed by all participants. The progress report and the minutes combined are credited with 0,5 CP.
- c) *Good scientific practice (Recommended for year 1 of the doctorate)*: For 0.75 CP, a course participation of at least 1.5 days must be proven. Courses that are comparable in time and content can be credited alternatively.
- d) *Ethics in science or theory of science (recommended for year 2 of the doctorate)*: The training session "Ethics in Science" at UzL comprises of an introductory course and four specialized courses. Attendance of the introductory course and one specialized course can be credited with 0.75 CP. Courses that are comparable in time and content can be credited alternatively.
- e) *1st authorship publication*: For the assignment of 2 – 4 CP a publication must be accepted in an (international) *peer review journal*, and must contain a substantial proportion contributed by the doctoral student. If the substantial proportion in the respective publication medium is not defined as usual by the position of the author as lead or last author, it must be shown that the own contribution to the publication corresponds to a lead or last author in a biomedical journal. The exact number of CP are regulated by the corresponding branch statutes (Examination regulations for the section biomedicine (PromSPO biomed) and Examination regulations for the section informatics in medicine and lifescience (PromSPO CMLS)).
- f) *Co-authorship publication*: For the assignment of 1 CP, a publication as co-author must be accepted in an (international) *peer review journal*. The own contribution of the co-author must be substantial for the publication. This will be confirmed by the lead or last author.
- g) *Publication in conference proceedings*: For the assignment of 0.5 CP a publication must be accepted as a first author in a peer review conference proceeding. Deviating from this, the PromSPO CMLS branch statutes define higher CP values (max. 4 CP) for certain conferences. It is not possible to credit both an active participation and a publication in a conference report of the same conference [see (1) d)].
- h) *Successful fellowship/travel grant proposal*: A successful application for an external research fellowship/travel grant within the *peer review* procedure for a residence at another (international) research institution or a congress participation can be credited with 1 CP.
- i) *Successful third-party grant proposal*: For successfully raised third-party funds within the peer review procedure for an own research project, 3 CP are taken into account. If the doctoral student is not

mentioned as applicant in the proposal, the significant contribution of the doctoral student has to be substantial for the application. This is substantiated by the applicant.

- j) **Workshops on science communication:** Attendance at workshops on the subject areas of scientific writing, the conception of a third-party funding application, presentation skills of suitable sessions of the training offerings of the University of Lübeck or of content-related equivalent offerings of external institutions. 7,5 h correspond to 0,25 CP. Half of the credit points are awarded for attendance and half for self-study.
- k) **Organization of a conference/workshop:** For the organization of a conference, symposium or of an equivalent event, 2 CP are taken into account. The organization includes the independent planning and carrying out of the event.
- l) **Supervision of a bachelor/master thesis or guest scientist internship (recommended for year 2-3 of the doctorate):** The comprehensive professional supervision of a Bachelor, Master or Diploma thesis or of an internship of a guest scientist can be credited with 1 CP/3 months supervision time. The supervision activities must be confirmed by the working group leader.
- m) **Teaching (recommended for year 2-3 of the doctorate):** For the supervision of a course (lecture, practical training, tutorial, exercises) in the amount of 0.5 semester week hours (SWS), 0.5 CP are taken into account. If the course has been planned independently, additional 1.5 CP are taken into account.

(3) The courses, training sessions and elements from the area **interdisciplinary skills**, will be selected from the following elements:

- a) **Interdisciplinary workshop participation:** The requirements are the same as for a disciplinary workshop [1 f)] with the addition, that the interdisciplinary nature must be clearly differentiated from the subject area of the doctoral research focuses.
- b) **"View outside the box" recommended for year 2-3 of the doctorate.**
- c) **Interdisciplinary lecture/module incl. exam (1 ECTS):** The requirements are the same as for a lecture or a module of a disciplinary area [(1) e)] with the addition, that the interdisciplinary nature must be clearly differentiated from the subject area of the doctoral research focuses.
- d) **Language courses** (German as a foreign language, scientific English or another foreign language): For 1 CP one must participate for 15h.
- e) **Soft skills:** are chosen of suitable events of the training offerings of the University of Lübeck or of content-related equivalent offerings of external institutions. 7,5 h correspond to 0,25 CP. Half of the credit points are awarded for attendance and half for self-study.