



Guidelines for the organization of teaching capacity in BSc/MSc Biology and Biomedicine

Background:

Since introduction of the BSc/MSc system, student numbers in Biology have increased over the last ten years (for Biology major students 23%; 2005: 673, 2014: 828). Student increase in case of Biology minor has been even greater. Most importantly, this fall with the start of the BSc/MSc program Biomedicine, student numbers have almost doubled (students entering BSc Biology 2014: 216; students entering BSc Biology and Biomedicine 2015: 168 (Bio) + 209 (Biomed) = 377). In contrast to expectations, entry into the new BSc in Biomedicine has exceeded by far the observed decrease in the BSc Biology. As a result, a dramatic increase in teaching capacity is required.

The present challenge in the BSc/MSc programs in Biology and Biomedicine lies primarily in maintaining a minimum of basic introduction into practical work during the basic studies curriculum (Grundpraktika) and a research-orientated teaching during block courses in the third BSc year and at the MSc level (Blockkurse). These important elements of practical training depend on support by teaching assistants.

One of the strengths of Biology UZH results from cooperation with research groups from MeF and USZ. This cooperation has steadily increased. For example, the number of MeF/Vetsuisse/USZ research group leaders to whom the MNF has granted promotion right has more than doubled during the last 5 years (2008: 21, 2015: 55). Two additional MeF institutes have developed into MeF/MNF double institutes of which a total of five is now associated with the division of Biology (Biochemisches Institut, Institut für Experimentelle Immunologie, Institut für Medizinische Virologie (MNF/MeF), Institut für Molekulare Krebsforschung, Physiologisches Institut). The success of this cooperation is also clearly indicated by the development of PhD student numbers. The majority of PhDs (2011: 53%) in Biology complete their research thesis in research groups outside MNF Biology institutes, and PhD student numbers have increased strongly. During the last five years the total number of PhD students in the Division of Biology has almost doubled (2009: 549, 2014: 945) largely as a result from Biomedicine expansion. (For additional information: 73% of the MNF PhD students are in Biology). It is evident, therefore, that optimal training of students in Biomedicine, not just at the level of PhD, but also during BSc/MSc, is crucial to sustain this field. Training success will critically depend on the cooperation between MNF-Biology and the MeF/Vetsuisse/USZ research groups associated with the division of Biology. It is important that the teaching capacity is efficiently used and organized. As a multitude of institutes and affiliated research groups are involved in teaching in the BSc/MSc programs in Biology and Biomedicine, as well as additional MNF divisions (Chemistry, Mathematics, Physics), co-ordination by the Division of Biology (Fachbereich Biologie) and its Academic Support Office (ASO, Studienkoordination) according some overarching guidelines is essential. Accordingly, the following guidelines are proposed.

Guidelines:

1. In principle, all the PhD students admitted based on approval by an MNF faculty member or a person with MNF promotion right in the field of Biology (Promotionsverordnung § 7) have to contribute to teaching in the modules of the basic curriculum Biology/Biomedicine.
2. These contributions to teaching in the modules of the basic curriculum will be organized by the Academic Support Office Biology (ASO, Studienkoordination) in consultation with the institutes/research group leaders. The ASO will aim for a fair distribution of teaching hours among PhD students. In particular, comparable teaching contributions in modules that are basic obligatory elements of other study programs (at MeF or Vetsuisse) are taken into account and will be considered as equivalent. The ASO in cooperation with program directors at other institutions will create a list of such basic modules which also includes the number of teaching hours that a teaching assistant contributes to the module.
3. The total extent of teaching contributions in basic modules per student will be set so that the need in the BSc/MSc programs in Biology and Biomedicine, as well as in comparable programs in MeF and Vetsuisse, can be satisfied. As far as possible, the PhD students will teach in the modules offered by their institute/research group. The teaching itself will be organized by the responsible module leaders who confirm the teaching contribution.
4. The ASO will develop efficient procedures to assign and monitor these teaching contributions.
5. Beyond teaching contributions in basic modules, PhD students will have to engage in block courses (non-basic modules). These teaching contributions will be organized by the block course module leaders (i.e. the ASO will not assign PhD students to block courses). However, these teaching contributions will also be monitored by the ASO. The confirmation of the total teaching contributions that a PhD candidate is required to submit when handing in his PhD thesis at the MNF will be provided and signed by the ASO.
6. The ASO in co-operation with the person responsible for a block course module will determine how many hours of teaching contribution is provided by a PhD student assisting in a particular course. Based on this information the ASO will estimate the total hours of teaching contributions required for the entire block course offer of Biology/Biomedicine and from this an estimate of the average teaching hours that each PhD student contributes in block courses.
PhD students in research groups that contribute to block courses below average will have to compensate by a matching increase in their basic curriculum teaching. Taking this into account, the total extent of teaching contributions in basic modules per PhD student (see 1.-3.) will be recalculated and reduced in proportion.
7. In case of disagreement between institutes/research groups and ASO concerning value and assignment of teaching contributions, the Lehrkommission (LK) Biologie will decide. Similarly, the LK can consider and decide exceptions from these guidelines in case of well-founded written applications from institutes/research group leaders.
8. It is the understanding of the Division of Biology that "teaching contributions" are distinct from "training contributions". In essence "teaching" comprises activities characteristic for universities and not those that are also provided in research groups of pure research institutions.

9. MNF faculty in Biology as well as persons with MNF promotion right associated with Biology are expected to offer block courses. The Division of Biology will support application for promotion right at the MNF only when applicants provide a substantial contribution to teaching in the BSc/MSc programs in Biology/Biomedicine. In general this will be in the context of block courses (at least 1/3 of a block course per person). A demonstration of established teaching contributions and consent to these guidelines will be a pre-condition for promotion right.

Christian Lehner, Karin Isler, November 2015

approved by the Lehrkommission Biologie on Nov 27, 2015