



LUND
UNIVERSITY

Bachelor's Programme in Biomedicine

PROGRAMME QUALITY CLOSURE AND QUALITY PLAN 2022

Summary of programme quality closure

Results – focus on strengths and weaknesses

1. TBL was used in the majority of courses and was overall appreciated, with some variability in the level of difficulty for applications and usefulness of study guides.
2. Ortrac (QPS) was used for all courses following the programme syllabus of 2020. Some courses were good examples with a well-structured course page, while other courses had a problem with structuring course information etc on Ortrac. Some courses also didn't publish material for preparation well in advance to the learning activity.
3. Assessment criteria have been set up for assignments, but in some cases these were not clear or not consistent with instructions.
4. The communication with teachers worked best in courses that had a designated channel for this, which was very appreciated by students. Email and Ortrac not good. Students also request feedback on assignments early in the work process.
5. A recurrent comment from the course quality closures was a high workload, especially at the end of courses.

Possible explanations

1. TBL is still new to most students and not all teachers are experienced in designing applications and study guides. The number of students varies, which impact on the demand on TBL facilitators. Online teaching due to Covid impacted negatively on teaching and learning.
2. Ortrac is new to students and teachers and not yet fully developed. There was a lack of common structure for course pages, leading to different solutions at different courses.
3. Assessment criteria need development and adjustment to new courses and assignments.
4. Ortrac in its current form is not optimized for communication. Separate channels such as Discord can be used but there is uncertainty regarding alignment with GDPR. One course was taught online due to Covid and this impacted negatively on the communication between students and teachers.
5. New courses tend to have an ambitious syllabus. Together with new learning activities and schedules, this can lead to a high and uneven workload.

Suggestions of measures and further development

1. Workshops for teachers on TBL methodology is needed, one such was planned in 2020 but postponed due to the pandemic. This is planned to take place spring 2023.
2. A template for course start pages has been developed and is implemented from fall 2022. A consistent structure will facilitate page management by teachers and location of information, assignments etc for students.
3. A workshop focused on assessment criteria including differentiated grading (U/G/VG) is planned for winter 2022/2023. The programme aims for criteria that clearly identifies progress throughout the programme.
4. The communication through Ortrac needs improvement, this is underway. Meanwhile, teachers need to be very clear and transparent about which communication channels that are used. All course information must be accessible through Ortrac to make sure no students miss out on information.

The programme in figures

Number of students that applied to the programme 2021:	883+796	(national + international)
Number of students that applied to the programme 2021 with prio 1:	152+371	
Number of students that applied to the programme 2022:	848+965	
Number of students that applied to the programme 2022 with prio 1:	141+434	
Number of new programme students accepted 2021:	41+28	
Number of new programme students accepted 2022:	27+26	
Number of new programme students that were registered 2021:	39+11	
Number of new programme students that were registered 2022:	29+10	
Funding agreement targets 2021 (MKr)	18.4*	
Result accounted for 2021 – (HST+HPR)	15.6	
Number of full-time equivalent students 2021 (HST):	109	
Number of annual performance equivalent 2021 (HPR):	100	
Number of degrees awarded 2021:	22	
Budget for 2021:	16.5*	
Economic result 2021:	-0.7*	
Budget for 2022:	18.4*	
Number of teachers involved (>2h):		

**Both Bachelor and Master programmes.*

Representatives in committees

Programme director: Maria Swanberg

Programme steering committee:

Karin Stenkula, Mattias Collin, Thomas Hellmark, Viktoria Willenfelt Lumpkins, Sara Holmgren, Susanne Destow, Magnus Hillman, Lene-Marlen Wessel (student)

International committee:

Mattias Collin, Maria Swanberg

Examination committee:

Harry Björkbacka, Magnus Hillman, Oonagh Shannon (until October 2022)

Student welfare committee:

Oonagh Shannon (until October 2022), Bodil Sjögreen, Nicholas Leigh (from 220913), Susanne Destow

Other working groups or committees:

QPS reference group: Magnus Hillman, Harry Björkbacka, Thomas Hellmark

Appendixes

1. List of courses
2. Quality plan 2022
3. Course quality evaluations

Appendix 1. List of courses

Course code	Course name	Credits (ECTS)	Semester*	# of students	# passed the course	Course closure available
BIMB10	Biology and chemistry of the cell	30	Sem 1	48	40	yes
BIMB20	Biochemistry and cellular metabolism	7,5	Sem 2	46	42	yes
BIMB21	Genetics and genomics	7,5	Sem 2	48	46	yes
BIMB22	The cell and its environment	15	Sem 2	47	41	yes
BIMB30	Developmental- and stem cell biology	7,5	Sem 3	39	39	yes
BIMB31	From neuron to nervous system	7,5	Sem 3	39	39	yes
BIMB32	The immune system	7,5	Sem 3	35	33	yes
BIMB33	Host-Pathogen interactions	7,5	Sem 3	36	35	yes
BIMB40	Organ Systems and Homeostasis of the Human Body	15	Sem 4	35	33	yes
BIMB41	Molecular Basis of Disease	7,5	Sem 4	32	29	yes
BIMB42	Pharmacology and Drug Discovery	7,5	Sem 4	34	33	yes
BIMA82	Utvecklingsbiologi och genetik	15	Sem 5	36	31	yes
BIMA81	Molekylärmedicin	15	Sem 5	38	34	yes
BIMK90	Examensarbete i biomedicin	30	Sem 6	34	31	no
			Sem 1			no
			Sem 1			no
			Sem 1			no
			Sem 1			no

* FS: Free standing

Appendix 2. Valid for the academic year 22/23

Overall quality criteria	Quality objectives	Activities	Planned to start	Planned to end	Responsible	Status / Follow up	Actions/feedback:
<i>Refers to "Policy för kvalitetssäkring och kvalitetsutveckling av utbildning vid Lunds universitet"</i>		<i>Planned activities to reach the objectives</i>				<i>Annually</i>	<i>What does the program do with the results and how are these disseminated to relevant stakeholders?</i>
The actual study results correspond to learning and programme syllabus outcomes.	<i>To have a complete mapping and blue printing of the programme to obtain alignment and transparency</i>	<i>Curriculum mapping: connect competences and learning outcomes to the programme syllabus in Ortrac (QPS)</i> <i>Blueprinting: connect learning, teaching and assessment to each learning outcome</i> <i>Engagement of the PNM examination committee in course development.</i>	<i>Started 2020</i>	<i>Mapping was completed in 2022, and will be continuously updated for new learning activities, outcomes and courses.</i>	<i>Course managers and programme directors</i>	<i>Outcome from course quality closures will be evaluated by course leaders. When needed, adjustments in course syllabi will be made.</i>	<i>Students can individually follow mapping and blueprinting of their activities in Ortrac.</i> <i>Teachers and programme directors can monitor mapping and blueprinting across courses within the program. When alignment needs improvement, this is discussed with representatives from the involved courses.</i>

The programme has the students' learning in focus.	To have student centered learning throughout the program in order to promote life-long learning and student responsibility for their own development.	<p>Implementation and development of Team Based Learning (TBL) in collaboration with the TBLC.</p> <p>Flipped classroom strategies. Classroom activities focuses on interaction between students.</p> <p>Continuous assessment in QPS to visualize students' development. The same assessment criteria are applied to learning activities in different courses to map students' development.</p>	Ongoing	Ongoing	Course managers, program directors and student representatives.	In course evaluations and some assessments such as student requested feedback in the QPS system	<p>Workshops in TBL for course managers.</p> <p>Emphasize activities of student-centered learning activities in budgets and schedules.</p>
The education is based on scientific basis and best practice.	To have evidence-based learning methods to achieve the best possible conditions for learning.	<p>Education of teachers at MedCUL</p> <p>Engagement of ETPs from the faculty's pedagogic academy.</p>	Ongoing	Ongoing	Programme directors	Programme closure	<p>Map and support teachers' pedagogic development.</p> <p>Workshops held by the examination committee and ETPs for feedback and updated scientific evidence in teaching and course design.</p>

		<i>Recommend teachers that are doing pedagogic projects to include perspectives on their teaching modules.</i>					
Teaching staff have suitable education in subject-specific, pedagogic and didactic competences	<i>To have teachers at the programme that have a keen interest in teaching, relevant pedagogic training and proven subject expertise.</i>	<i>Follow-up on course coordinators' and examiners' pedagogic development.</i> <i>New assignments are announced in open competition and evaluated in a structured way.</i>	<i>ongoing</i>	<i>ongoing</i>	<i>Programme directors and course managers</i>	<i>Course closures.</i>	<i>Discuss with respective teacher and make a development plan if improvement is needed</i> <i>Provide collegial support at the programme.</i>
Teacher capacity is sufficient.	<i>To have a good recruitment base of teachers and examiners with appropriate experience, education and long-term employment contracts to cover the programme's needs.</i>	<i>To emphasize the programme's needs of teachers employed in the teacher category (lecturers, professors) to the Faculty management.</i>	<i>ongoing</i>	<i>ongoing</i>	<i>Programme Directors, chairman of the board of master education (PNM), vice dean at the Faculty of Medicine</i>	<i>Quality dialogue and requests for employments to the Faculty board.</i>	<i>Promote and highlight the need for lecturer-/ professorships in underrepresented areas and highlight the consequences of too few faculty-financed teacher positions on the overall teaching quality and continuity.</i>
The education is relevant for the students based on the societal needs.	<i>To offer students relevant and authentic training in skills and applications that are</i>	<i>Authentic cases and examples from both life science industry and academic environments are</i>	<i>ongoing</i>	<i>ongoing</i>	<i>Course managers and programme directors.</i>	<i>Course evaluations, course planning and development. Follow-up on alumni careers.</i>	<i>Communicate with partner universities and life science industry at national fora.</i>

	<i>required for their future profession</i>	<i>implemented in applications and portfolio assessments.</i> <i>Representatives from areas outside academia are included in the teaching.</i>					
The students have influence over planning, execution and follow up of the education.	<i>To have a good dialogue with, and involvement of, students to engage them in their current and future education.</i> <i>To improve the programme from a student perspective.</i>	<i>Student representatives are involved in relevant environments, such as working groups, programme workshops, the biomedicine steering committee meetings and course evaluations.</i> <i>Meetings are held in English when possible and needed.</i>	<i>ongoing</i>	<i>ongoing</i>	<i>Programme directors, course managers, student course representatives and the student educational association (BUR).</i>	<i>Follow-up at bi-weekly programme management meetings.</i> <i>Annually at programme workshop.</i> <i>After every course in course quality closures.</i>	<i>Bidirectional communication between students and programme management to ensure understanding and needs from both students and management.</i>
The learning and study environment are suitable and accessible for all students including well functional support activities.	<i>To offer learning activities that support participation and learning for all</i>	<i>Information and workshops held by the academic support center, student welfare committee and study counselor.</i>	<i>ongoing</i>	<i>ongoing</i>	<i>Programme director, student welfare committee and study counselor.</i>	<i>Continuously.</i>	<i>Follow-up through the study counselor, student welfare committee and programme director.</i>

	<i>Students at the programme.</i>	<i>Individual study plans are made if needed.</i>					<i>Surveys to map what works well and what needs improvement regarding learning environments. The outcome is communicated with teachers and course leaders.</i>
There is a continuous follow up and development of the programme	<i>To offer a competitive programme of highest international standards.</i>	<i>Programme and quality development.</i>	<i>ongoing</i>	<i>ongoing</i>	<i>Programme management, student educational organisation and teachers.</i>	<i>Programme closure and quality assessment.</i>	<i>Communication with student organizations at a local and national level and other universities. Information to prospective students (fairs, online etc).</i>
Internationalization and international perspectives are promoted in the programme	<i>Internationalization of the program is reflected in the student cohort, engagement of international teachers and a global perspective of Biomedicine.</i>	<i>International admission of students, student and teacher mobility is encouraged. Applications are designed with a global health perspective. Students can apply for a certificate of international merits (CIM),.</i>	<i>2020</i>		<i>Programme director, international committee and international coordinator.</i>	<i>The number of international students, student exchange and teacher exchange reported in programme closure.</i>	<i>Global perspectives are emphasized in information to prospective students.</i> <i>As suggested by the quality evaluation group in 2020, map relevant internationalisation in Ortrac under Core-values. Highlight the different perspectives and experiences that students and teachers can contribute with.</i> <i>Open CIM seminars to promote student exchange and international engagement.</i>

Gender equality and equal treatment are integrated in the programme	<i>All students and teachers are treated equally and with respect.</i>	<i>Through training and assessing group communication from start of the programme. No tolerance for harassment or other unequal treatment.</i>	<i>ongoing</i>		<i>Programme director, course managers, student counselor, students.</i>	<i>Course evaluations, questionnaires (eg Studentbarometern), psychosocial safety inspection..</i>	<i>Student meetings, teacher meetings Emphasize a professional behavior in course syllabi and highlight the importance of equality and diversity in teams and in learning activities. These should be mapped in QPS in order to follow the progression.</i>
Relevant perspectives in sustainable development is promoted	<i>The programme contributes to sustainable development of academia, working life, studying, health and environment.</i>	<i>The sustainability goals are considered in the educational- and course curricula and tagged in QPS.</i>	<i>2020</i>		<i>Programme management, Course managers,</i>	<i>Course evaluation, QPS tags.</i>	<i>Workshop discussions with teachers and students.</i>
Adequate administrative support for students, teachers, course managers and programme management.	<i>The administrative support facilitates students' learning, and allows teachers to focus on education rather than administration.</i>	<i>Discussion with administrative management to convey the programme's needs in terms of services and continuity.</i>			<i>Programme director and administrative manager.</i>	<i>Regularly at programme management meetings in dialogue with students and teachers.</i>	<i>Discussed at the programme board (PNM) and in quality dialogue.</i>

BIMB10	Course name	30 ECTS	
Year 21/22	Course start: 2021-09-01	Course end: 2022-01-14	Study rate 100%
Course leader(s)	Fredrik Ek, Magnus Abrahamson		
Examiner	Magnus Abrahamson		

The course

Number of students	At start: 49	At the end: 47
Examination module (name, credits)	Passed at first attempt	Passed later
2001	16	24
2002	47	
2003	35	11
2004	28	8
Number of other teachers involved: 8	Of which 1 professors, 2 readers (docent), 4 holding PhD, Phd students, 1 other, and non LU or RS employed. Of which were core course conveners, 2 guest lecturer, assistants, or other minor contributors.	
It was easy to find competent teachers <input checked="" type="checkbox"/> yes <input type="checkbox"/> no	If no, in what field of knowledge was it hard to find teachers? Why?	
Short description of the course: The course introduces general, analytical and organic chemistry with links to cell biology and with a focus on the bioactivity, structure and solubility of organic molecules. The building blocks, structures and organelles of the cell are studied and form the basis for discussions about the chemical processes that take place in the cell and contribute to its function. Chemical nomenclature is studied and applied with a focus on the biomedical subject area. The importance of functional groups in biomolecules is discussed and related to what drives chemical reactions in and outside the cell. Acid-base theory is discussed and concepts such as pH and the pKa are related to the biology of the cell. Chemical bonds in and outside the cell are compared and bond strength is related to reactivity and stability. A large part of the course is devoted to the genetic information carriers of the cell and how this information can be transferred in cell division and protein synthesis, and to describe the morphology and function of cellular organelles. Understanding of structure-function relationships for proteins and other biological macromolecules is a basic goal. A typical human cell is focused on throughout, with some references to differences and similarities to a typical prokaryotic cell. The course also includes scientific approach, academic integrity, searching for, and handling, research references and the application of basic biostatistics and evaluation of how data is presented in research journals. Group communication and active learning are included as an important part of the course to prepare for future sustainable learning. Pedagogic model(s) used in the course (exemplify how you work): TBL and lectures; linked to practical lab work. Examining iRATs during the course, ending essay question exam to test 'explain' goals in the learning outcomes. Emphasis on writing (three lab reports, statistics assignment) examined in portfolios.		

Major changes from last year:

One laboration skipped (DNA lab) due to budget restrictions; study visits omitted due to budget restrictions and practical concerns; new seminar on academic honesty. In response to last year's course closure suggestions: All 10 detailed points raised then have been addressed, with attempts to streamline lab report criteria, revise the number and balance of iRAT questions, include more information for the protein block and attempt better preparation exercises for the final exam. One exception is the comment on further optimization of Ortrac with respect to handling of images in exams.

Summary of course quality evaluation

Results – focus on strengths and weaknesses

Overall the course was very well received. In the graded questions of the course evaluation (answer frequency 68% – a bit low), approximately 80-90% of the students choose 4-6 (6 being the best) on all questions and the average on all questions was 5.1.

In the free text response, the students highlighted that the concept to have 3 examining iRATs during the course helped them to keep up the pace and give them feedback that they were on track for the final exam. A focus on overall understanding of cellular processes in the final exam was appreciated and. Some comments related to too much details needed for the iRAT questions. Some students highlighted that preparation for the essay questions in final exam could be improved.

The practical part was mostly appreciated. Most concerns related to (understandable) problems due to students or supervisors not being able to come due to Covid-19 restrictions. A few comments related to problems with the equipment on the lab and better chances to prepare by receiving lab instructions earlier. The preparation letter prior to the course start was also well received.

The TBL sessions were much appreciated and several students mentioned the possibility to increase learning by discussions both with teachers and with peers, but there was also the classical problem with the silent student and uneven contribution to the discussion. There were major concerns about the room used for TBL (too small and crowded for 50 students) and that the TBL groups ideally should be smaller (now at 10 students) to be optimal.

Comments on the question what most needs improvement related to the organization of the schedule and the work-load in the end of the course, with work on a large cell biology lab report, examining iRAT3, starting preparations for the final exam and a biostatistics report colliding. One comment also related to the biostatistics subcourse being a bit disconnected making it distracting for the rest of the course. Sometimes non-synchronized PDF and TimeEdit schedules was seen confusing. One comment asked for possibility to give feed-back "in a controlled manner" [presumably formal manner] during the course.

The students emphasized that the best thing with the course was the TBL sessions, having several labs, the teachers' cooperative engagement, support and positive attitude, helping the students to cope with the transition from senior high school to the University. One comment summarizing all comments about what was the best about the course quite well is "The teachers and the TBLs and the discord server". The final question in the course evaluation was about communication between students and students-teachers. All comments were very positive with respect to use of the Discord server, to facilitate sharing of different students' questions, discussion among students and interaction with the teachers.

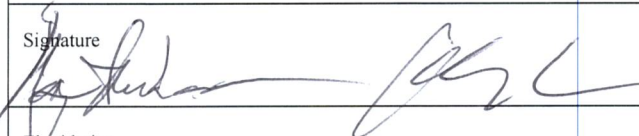
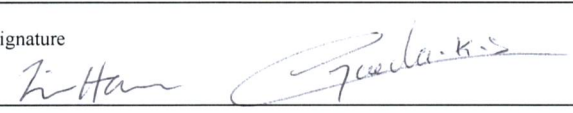
Some more comments were brought up during the course evaluation meeting, held Feb. 18th, 2022 with two student representatives (Linn Hansson, Gaeda Senien) and the two course leaders (Fredrik Ek, Magnus Abrahamson): The Discord server is a very useful tool. That, or something similar, should be incorporated in future courses. The responsibility for management could be given to the students, as a good complement to more traditional Facebook groups. The SI exercises were good, but could be more focused on the study techniques needed for University studies. Improve the biostatistics part

Possible explanations

Suggestions of measures and further development

- Non-synchronized schedules in PDF version and TimeEdit. Suggestion: rely entirely on TimeEdit and skip the PDF.
- Better preparation for the final exam questions. Suggestion: The last TBL session will focus on questions to phrase understanding of general concepts in the study goals.
- Busy, stressful December. Suggestion: Move the final protein lab in time 2-3 weeks, to instead be in mid-November, to allow lab report deadlines well before Christmas
- The biostatistics part of the course made some students unhappy. It was seen as containing too much in a short time and it was suggested by the students to be moved to a separate course. Suggestion: Move it in time to >1 month before Christmas, not to collide with final exam preparations, less lecturing, more specific study goals. Attempts to include descriptive statistics using data generated from the course labs, to stress the importance and seek better integration with the main course content.

Signatures

Date: 2021-02-18	Place: Lund
Course leader	Student representative
Signature 	Signature 
Elucidation Magnus Abrahamson, Fredrik Ek	Elucidation Linn Hansson, Gaeda Senien

Appendix: Course evaluation

BIMB21	Genetics and Genomics	7.5 ECTS
Year 21/22	Course start: 2022-02-17	Course end: 2022-03-22
Study rate 100%		
Course leader(s)	Kajsa Paulsson	
Examiner	Anna Hagström	

The course

Number of students	At start: 48	At the end: 48
Examination module (name, credits)	Passed at first attempt	Passed later
iRATs	41	7
Lab report	34	13
Examination task	34	12
Number of other teachers involved: 4	Of which 1 professors, 1 readers (docent), 2 holding PhD, Phd students, other, and non LU or RS employed.	
	Of which 4 were core course conveners, guest lecturer, assistants, or other minor contributors.	
It was easy to find competent teachers	If no, in what field of knowledge was it hard to find teachers? Why?	
<input checked="" type="checkbox"/> yes <input type="checkbox"/> no		
Short description of the course:		
The course covers basics of genetics and genomics with a focus on human genetics.		
Pedagogic model(s) used in the course (exemplify how you work):		
TBL with iRATS and application seminars. Ethics seminars. We also have calculation exercises, lectures, as well as a lab and a written lab-report.		
Major changes from last year:		
We added study goals (in addition to reading instructions) and changed the schedule to allow more time for studying before the iRATs. We also shortened the lectures to allow more focus.		

Summary of course quality evaluation

Results – focus on strengths and weaknesses

Overall, the students appeared to be happier with the course this year. Several mention the calculation exercises as valuable and also that it was good to have 1-hour lectures instead of longer lectures. It is clear that we need to work more on the Application seminars to find the right level - several students thought that they were too easy and it was clear that some questions did not lead to a lot of discussion. Also the ethics seminars did not work so well. Furthermore, some terms and definitions should be better explained during the lectures.

Possible explanations

For the ethics seminars, it has been difficult to find a good way of organizing the discussions so that it does not get repetitive but that we can still have a discussion in the full class after group discussions.

Suggestions of measures and further development



We will think of better ways of organizing the ethics seminars. The questions give rise to quite interesting discussions but it does get repetitive in the way that we have organized it. We did not have the same problem last year - possibly zoom had something to do with this?

For the application seminars, we felt that the last seminar, where we had more difficult questions, worked better. We will see if we can change the other to seminars to that level as well.

Check all lectures for difficult words/definitions, make sure that they are well explained.

Think of better ways of communicating outside the classroom. We cannot answer factual questions over email as this would take too much time but we should think of ways of communicating so that the students do not feel that they cannot approach us with questions.

Signatures

Date: 2022-05-11	Place: Zoom
Course leader	Student representative
Signature 	Signature 
Elucidation Kajsa Paulsson	Elucidation Linn Hansson

Appendix: Course evaluation



BIMB22	The Cell and Its Environment	credits ECTS
Year	Course start: 2022-03-23 Course end: 2022-06-03 Study rate	
Course leader(s) Magnus Gram, Darcy Wagner		
Examiner	Joao Duarte	

The course

Number of students	At start: 46	At the end: 46
Examination module (name, credits)	Passed at first attempt	Passed later
Final Exam (7.5hp)	38	1
Portfolio (7.5hp)	39	3
Number of other teachers involved: 17	Of which 2 professors, 7 readers (docent), 5 holding PhD, 2 Phd students, other, and 1 non LU or RS employed.	
	Of which 0 were core course conveners, guest lecturer, assistants, or other minor contributors.	
It was easy to find competent teachers	If no, in what field of knowledge was it hard to find teachers? Why?	
yes no		
Short description of the course:		
The course serves to deepen and broaden the students' knowledge in cell biology, biochemistry and genetics from the previous bachelor level courses. Different cell biology themes are covered each week, such as intracellular signal transduction, gene regulation and non-coding RNA, specialised cells and basic tissue types, cell cycle and cancer, cell interactions, the extracellular matrix and the movement of cells. The course focuses on the molecular and cellular mechanisms that control cells and the basic functions of their surroundings. The course acts as a bridge to future courses in e.g. neurobiology and immunology as well as human organ systems and homeostasis by discussing specialised cells and their role in different physiological and pathophysiological situations.		
Pedagogic model(s) used in the course (exemplify how you work):		

The course mainly used a combination of lectures and team based learning to stimulate active learning, whenever possible. The course also included active learning in the form of laboratory exercises in small groups to couple the theoretical knowledge with relevant practical applications in cell and molecular biology. Additionally, the students learned fundamentals of reading and interpreting scientific literature through a combination of lectures and journal clubs, culminating with the students conducting and presenting scientific papers in the closing sessions.

Major changes from last year:

The entire course leadership and examiner were new from the previous year and therefore we made only minimal changes in transitioning the course. The most major change was the transition from problem based learning (PBL) to team based learning (TBL) which then also included the use of ungraded iRATs to allow the students to self-assess and further to discuss and solidify their learning.



Summary of course quality evaluation

Results – focus on strengths and weaknesses

1. The article presentations were conducted under a narrow time-period, which made it stressful and somewhat problematic. Thus many of the students came to the same conclusion as us - to split this over the course.
2. The lab portion was viewed as a strength, but suggest to move it to later in the course.
3. Some students had concerns regarding the scheduling of course activities around the time of the Lund Carnival.
4. The Ortrac structure given by the program was not well-received and the students found this confusing and difficult to navigate. Most of all they had difficulty to know when new documents were uploaded.
5. Some students have mentioned the choice of communication platform and would not prefer using Ortrac. They have suggested to use Discord again as a messaging service.
6. The students appreciated the majority of teachers, but want course leadership to teach more in the course in order to be more involved.
7. Several pieces of information came late to the students - e.g. scientific presentation instructions and old exams.
8. Preparatory material came too late to students and should be distributed earlier. As early as possible. At least one week in advance. In addition to ppt slides, it would be helpful to have accompanying book chapters (online access) for students to read on their own before the lecture to prepare.
9. Teachers did not update/upload documents in time in Ortrac.
10. The most positive aspect is that in general, the students indicated that they did learn and that the TBL sessions were effective.

Possible explanations

The new course leadership was chosen and given this assignment in October which caused several delays in getting the course up and running as well as dissemination of information to students.

With regard to dissemination of information, Ortrac is the chosen QPS system by the university and it should therefore be used. The students would prefer an alternative messaging system, such as Discord, but as of the time this course was running, it was not GDPR compliant. This did change in May 2022 when the course was running but if used during the VT22, would not have been compliant.

The Lund Carnival is not a formal university holiday and therefore there is confusion as to whether or not academic courses should be scheduled around this. This should come from university leadership if so or in discussions with student organizations.

Suggestions of measures and further development

The course leadership will restructure the course for VT23 and plan to rearrange the laboratory course to occur later in the year and to rearranged the scientific article presentations to be more spread out throughout the course instead of having both at the end of the course. Journal club could be used throughout the course and coupled to the module themes. As the leadership will not be new in VT23, we do not anticipate large problems with dissemination of information.

Regarding channels of communication and the use/structure of Ortrac - this will be discussed at the Biomedicine Program retreat and should be addressed program wide as to how to handle this and then further discussed with student representatives. It was indicated to us that the students would appreciate the structure and despite our experiences that such a structure could be confusing, we were instructed to use it.

Feedback and info sessions were not organized as well as they could have been. This could be improved by including the instructors for the actual modules coming up or that there would be better pre-communication with instructors.

Scratch cards could be used more often with the tRATs to encourage more engagement in the discussion.

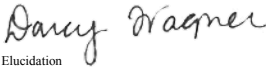
Introduction to Ortrac and its messaging system will be added for the first day. Test iRAT to make sure everyone knows how to use the system. If Ortrac is used properly, Discord does not need to be used.

Signatures

Date: 9/8/2022 Place: Lund

Course leader Student representative

Signature



Elucidation

Darcy Wagner
on behalf of Mangus Gram
and Joao Duarte

Signature



Elucidation

Linn Hansson
on behalf of Matsias Strömberg

Appendix: Course evaluation

BIMB30	Developmental Biology and Stem Cells	7.5 ECTS
Year 21/22	Course start: 2021-08-30	Course end: 2021-09-29
Study rate 100%		
Course leader(s)	U. Häcker	
Examiner	E. Pera	

The course

Number of students	At start: 39	At the end: 39
Examination module (name, credits)	Passed at first attempt	Passed later
iRAT (2,5)	39	39
Home assignment (5)	39	37
Number of other teachers involved: 1	Of which 1 professors, - readers (docent), - holding PhD, - Phd students, - other, and - non LU or RS employed.	
	Of which 1 were core course conveners, - guest lecturer, assistants, or other minor contributors.	
It was easy to find competent teachers	If no, in what field of knowledge was it hard to find teachers? Why?	
<input checked="" type="checkbox"/> yes <input type="checkbox"/> no	Developmental Biology and Stem Cells	
Short description of the course:		
Basic mechanisms in development of model organisms and stem cells		
Pedagogic model(s) used in the course (exemplify how you work):		
.Team Based Learning		
Major changes from last year:		
First time the course was held.		

Summary of course quality evaluation

Results – focus on strengths and weaknesses

The response to this newly created course was overall positive. According to the course evaluation report and feedback in the evaluation meeting on 20-10-2021, the students were very satisfied with the quality of the lectures and the level and focus of the examinations in the form of iRAT tests and a home assignment. The design of the TBL application was experienced as appropriate and the laboratory demonstrations were very helpful and a popular activity.

An area in which course approval was slightly below average was the question regarding sufficient feedback from the teachers. The major challenge of the course was the shortness of time for everything.

Specific comments:

- The students were overall critical of the TBL process and preferred a Pbl-based teaching format. They experience that Pbl promotes deep learning in a more efficient way. Pbl is regarded as superior in promoting understanding rather than short term memorization. The students miss closer teacher contact and appreciate the more intensive teacher (tutor) contact in a Pbl-based setting.
- The students perceive the amount of content in the course as challenging. Particularly in later weeks the amount of detail knowledge should be reduced and focus changed to promote conceptual understanding instead of memorization.
- Lectures given in 4-hour blocks are perceived as inefficient and tiring. Two independent 2-hour lecture blocks on separate days are preferred.
- The students experience the placement of TBL applications after the readiness assurance process as counterintuitive and would prefer to have the application before the examination. The readiness assurance process and the TBL application could be conducted on the same day in order to free up another day for studying.
- Some of the TBL application cases can be improved by focusing on more open-ended case scenarios that allow a higher degree of creativity during discussion.
- TBL applications are an obligatory event and a compensatory assignment should be introduced for those that miss a session.
- In its present form, the home assignment examines only knowledge and competence. The assignment needs to also include reflections on e.g. ethical considerations and benefits for the society.
- For some specific course activities such as oral presentations and written assignments details in the instructions need to be improved.

Possible explanations



- The students have experienced a Pbl-based format in the course preceding BIMB30. In a TBL-based setting with one teacher per 39 students it is not possible to attend to individual students in the same way as it is in a Pbl-based setting with one teacher per 8 students.
- Due to the shortness of the course the students have very little time to familiarize themselves with the different topics.
- The course deals with a subject that is very new to most students and they come with very little previous knowledge on the subject.
- Overall, a Pbl-based format with more intense teacher-access and contact is perceived as advantageous by the students. This is quite obvious even from a teacher's point of view.

Suggestions of measures and further development

- The course aims to reduce content in detail knowledge in order to shift focus towards conceptual understanding.
- The course aims to free up some study time by combining the readiness assurance process and TBL applications on the same day.

- The course aims to present content in smaller portions by moving lectures to different days. This will allow studying between lectures and should thereby facilitate understanding.
- Some of the TBL assignments will be revised to present more open-ended case scenarios.
- The course will implement compensatory assignment for missed obligatory sessions.
- Instructions for course assignments and presentations will be improved where necessary.
- The course aims to provide short online quizzes as additional tools for learning and feedback to the students.
- The home assignment will be complemented with a task that allows assessment of the students' ability to reflect. Here, ethical considerations and/or benefits for the society will be included in the task.

Signatures

Date: 2021-10-27	Place: Lund
Course leader	Student representative
Signature 	Signature 
Elucidation UDO HÄCKER	Elucidation LENE-MARLEN WESSEL

Appendix: Course evaluation

BIMB31	From Neuron to Nervous System		7.5 ECTS
Year 19/20	Course start: 2021-09-30	Course end: 2021-10-29	Study rate 100%
Course leader(s)	Anders Rasmussen		
Examiner	My Andersson		

The course

Number of students	At start: 40	At the end: 38
Examination module (name, credits)	Passed at first attempt	Passed later
RATs	38	0
Portfolio	32	6
Number of other teachers involved: 8	Of which 0 professors, 2 readers (docent), 4 holding PhD, 4 Phd students, other, and non LU or RS employed. Of which 3 were core course conveners, 5 guest lecturer, assistants, or other minor contributors.	
It was easy to find competent teachers <input checked="" type="checkbox"/> yes <input type="checkbox"/> no	If no, in what field of knowledge was it hard to find teachers? Why?	
Short description of the course: course aimed at teaching students about the structure and function of neurons, how the brain is organized and, and how the nervous system conjures cognitions, emotions, and consciousness. The course lasts ~4 weeks and includes 4 modules: (1) introduction, (2) neurophysiology and neuroplasticity, (3) input and output, & (4) cognition, emotion and neuropharmacology.		
Pedagogic model(s) used in the course (exemplify how you work): TBL Applications Demonstrations Lectures Individual assignment		
Major changes from last year: First time...		

Summary of course quality evaluation

Results – focus on strengths and weaknesses

Strengths:

Interesting subject

Good teachers

Learning goals were appreciated and helped focus the reading

The individual assignment helped students build confidence and get experience with grant writing

Weaknesses

Lectures and TBL sessions started at different times

The content was uploaded on the same day leaving no time for preparations

Students lacked information and examples for some assignments (e.g. Individual assignment)

Variable, and sometimes too high workload

Possible explanations

This was the first time that BIMB31 was held. Though we had spent a lot of time preparing the course and creating content some things were hard to anticipate which contributed to the perception that the course was unorganized. Some issues were also caused by regrettable scheduling mistakes.

Since this was the first time we held the course we did not have any examples for the IA.

Regarding the variable workload and the disconnect between learning goals and iRAT, this problem was in part due to too little communication and coordination between the people responsible for the different modules. This will be improved for the next course

Suggestions of measures and further development

Consistent scheduling

Explicitly state that for later iRATs, you need to know the material from earlier iRATs (and also earlier courses)

Reduce the number of learning goals and the assigned amount of reading for module 3 (input and output)

Add learning goals and adjust the difficulty of test for week 4

For the Histology application, students will get timeslots – and the presentation will be adjusted so as not to repeat what the students have learned previously

Organize the Ortrac page in the same way that Magnus and Oonagh did for their course

Have fewer office hours

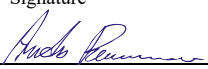


Add a Q&A section to Ortrac

The individual assignment will be narrowed down to focus on the development of new treatments for psychiatric disorders and brain diseases.

To get students started with the IA we will add a group-based workshop. During the workshop, the class will be split into groups that each get one common psychiatric disorder that they should read up on and present to the rest of the class – focusing on causes, and current treatments.

Writing skills workshop

Signatures

Date: 2022-01-13	Place: Lund
Course leader	Student representative
Signature 	Signature  
Elucidation Anders Rasmussen	Elucidation Lene-Marlen Wessel Nicolas Duble

Appendix: Course evaluation

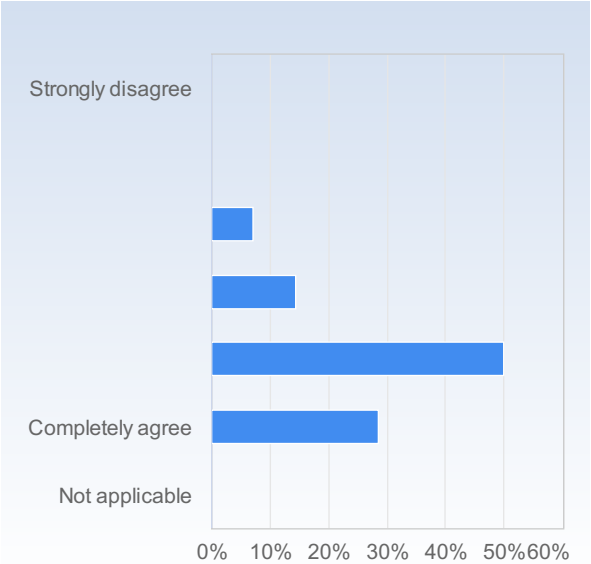
Course evaluation BIMB31 HT21

Respondents: 39
Answer Count: 14
Answer Frequency: 35,90 %

Select the option that best fits your experience

I understood the course learning outcomes

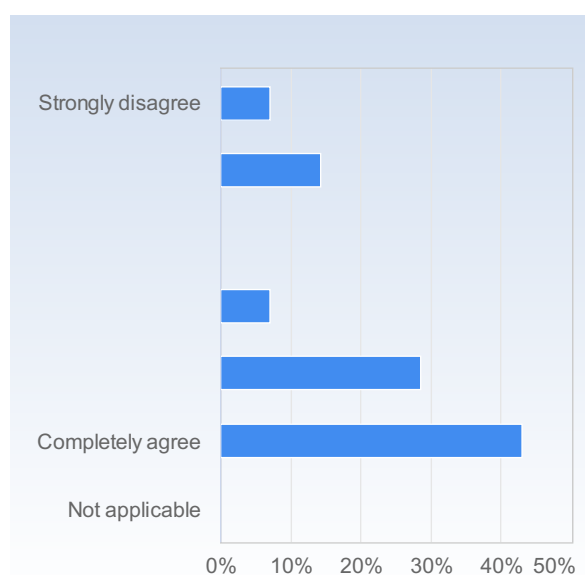
I understood the course learning outcomes	Number of responses
Strongly disagree	0 (0,0%)
	0 (0,0%)
	1 (7,1%)
	2 (14,3%)
	7 (50,0%)
Completely agree	4 (28,6%)
Not applicable	0 (0,0%)
Total	14 (100,0%)



I understood the course learning outcomes	Mean	Standard Deviation
	5,0	0,9

I used the course learning outcomes to support my learning.

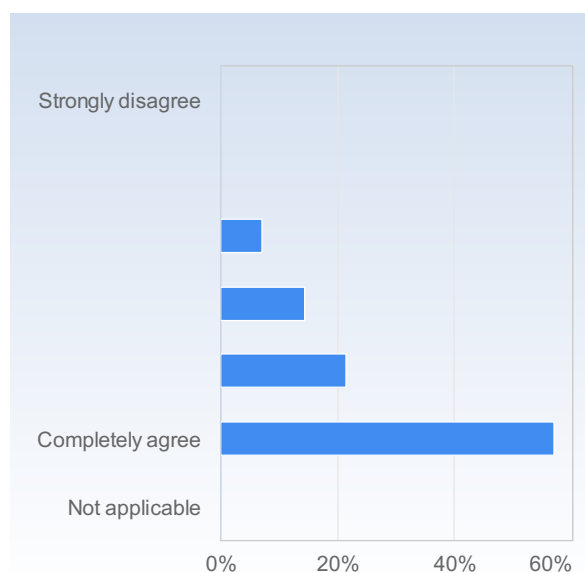
I used the course learning outcomes to support my learning.	Number of responses
Strongly disagree	1 (7,1%)
	2 (14,3%)
	0 (0,0%)
	1 (7,1%)
	4 (28,6%)
Completely agree	6 (42,9%)
Not applicable	0 (0,0%)
Total	14 (100,0%)



	Mean	Standard Deviation
I used the course learning outcomes to support my learning.	4,6	1,7

The course built on my previous knowledge

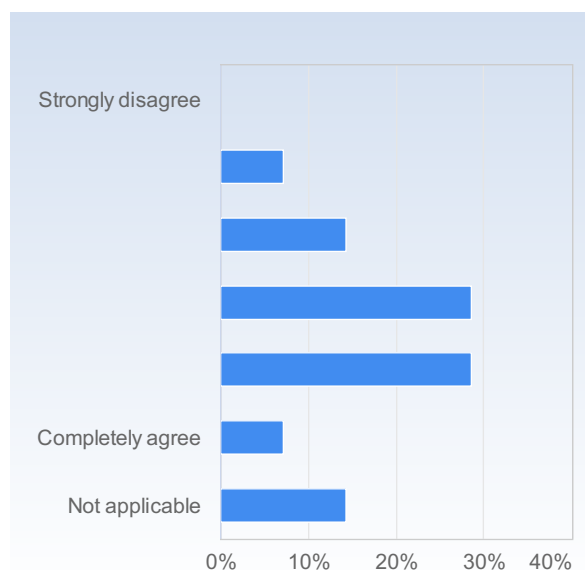
The course built on my previous knowledge	Number of responses
Strongly disagree	0 (0,0%)
	0 (0,0%)
	1 (7,1%)
	2 (14,3%)
	3 (21,4%)
Completely agree	8 (57,1%)
Not applicable	0 (0,0%)
Total	14 (100,0%)



	Mean	Standard Deviation
The course built on my previous knowledge	5,3	1,0

The lecturer/supervisor gave me feedback on whether I am on the way to achieving the course learning outcomes

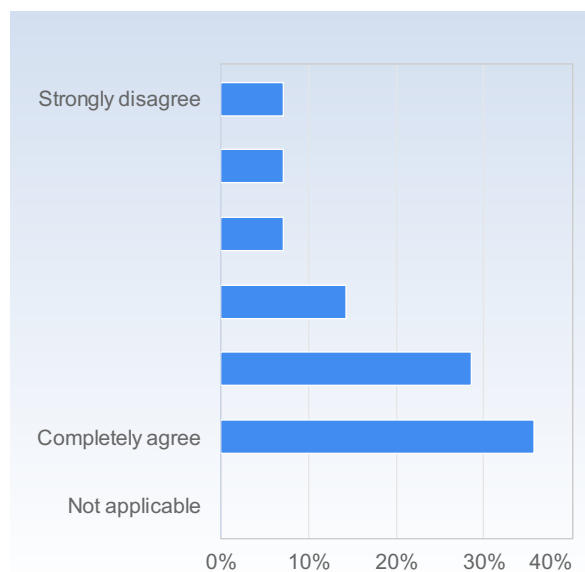
The lecturer/supervisor gave me feedback on whether I am on the way to achieving the course learning outcomes	Number of responses
Strongly disagree	0 (0,0%)
	1 (7,1%)
	2 (14,3%)
	4 (28,6%)
	4 (28,6%)
Completely agree	1 (7,1%)
Not applicable	2 (14,3%)
	14
Total	(100,0%)



	Mean	Standard Deviation
The lecturer/supervisor gave me feedback on whether I am on the way to achieving the course learning outcomes	4,2	1,1

The course's learning activities gave me feedback on whether I am on the way to achieving the course learning outcomes

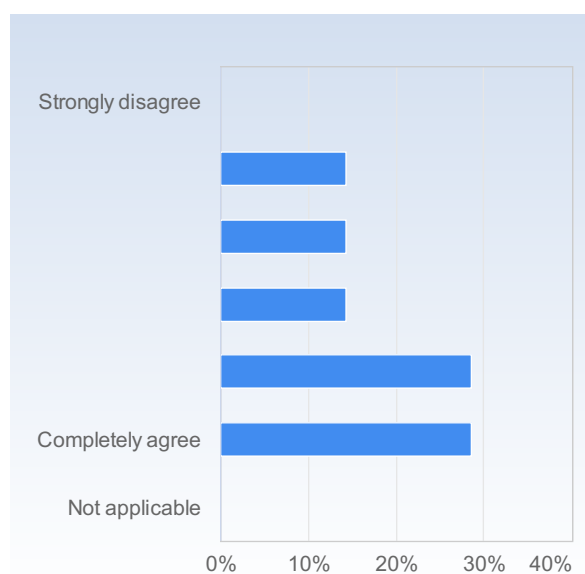
The course's learning activities gave me feedback on whether I am on the way to achieving the course learning outcomes	Number of responses
Strongly disagree	1 (7,1%)
	1 (7,1%)
	1 (7,1%)
	2 (14,3%)
	4 (28,6%)
Completely agree	5 (35,7%)
Not applicable	0 (0,0%)
	14
Total	(100,0%)



	Mean	Standard Deviation
The course's learning activities gave me feedback on whether I am on the way to achieving the course learning outcomes	4,6	1,6

The assessment elements focused on checking the achievement of the course learning outcomes

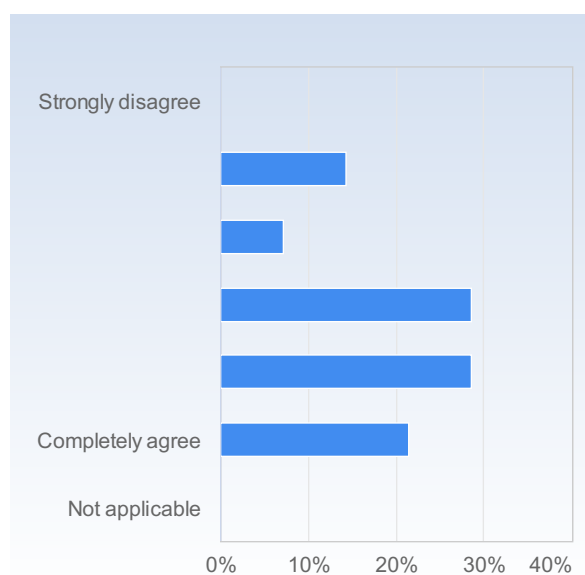
The assessment elements focused on checking the achievement of the course learning outcomes	Number of responses
Strongly disagree	0 (0,0%)
	2 (14,3%)
	2 (14,3%)
	2 (14,3%)
	4 (28,6%)
Completely agree	4 (28,6%)
Not applicable	0 (0,0%)
Total	14 (100,0%)



The assessment elements focused on checking the achievement of the course learning outcomes	Mean	Standard Deviation
	4,4	1,5

I was given sufficient opportunity to practice the skills included in the course learning outcomes

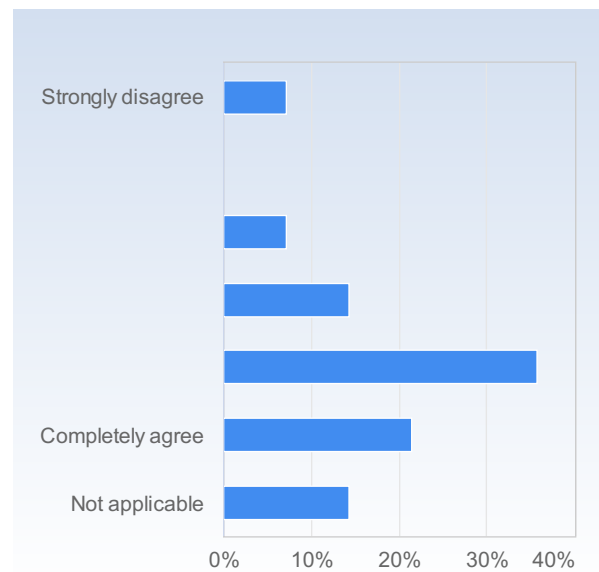
I was given sufficient opportunity to practice the skills included in the course learning outcomes	Number of responses
Strongly disagree	0 (0,0%)
	2 (14,3%)
	1 (7,1%)
	4 (28,6%)
	4 (28,6%)
Completely agree	3 (21,4%)
Not applicable	0 (0,0%)
Total	14 (100,0%)



	Mean	Standard Deviation
I was given sufficient opportunity to practice the skills included in the course learning outcomes	4,4	1,3

I developed my professional approach during the course

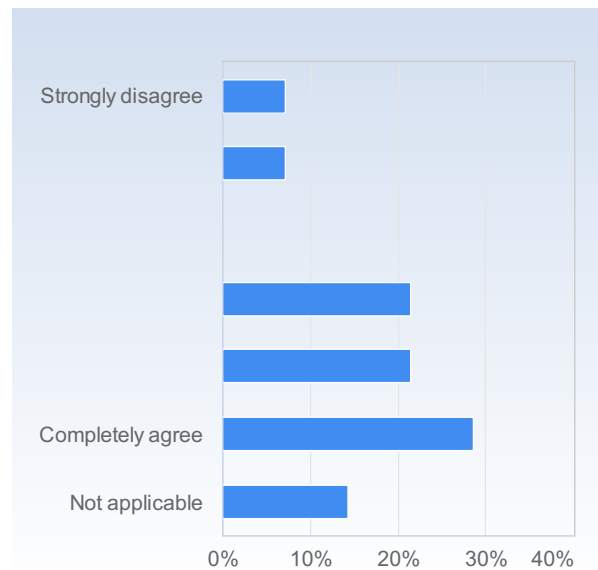
I developed my professional approach during the course	Number of responses
Strongly disagree	1 (7,1%)
	0 (0,0%)
	1 (7,1%)
	2 (14,3%)
	5 (35,7%)
Completely agree	3 (21,4%)
Not applicable	2 (14,3%)
Total	14 (100,0%)



	Mean	Standard Deviation
I developed my professional approach during the course	4,6	1,4

I developed my ability for critical thinking during the course

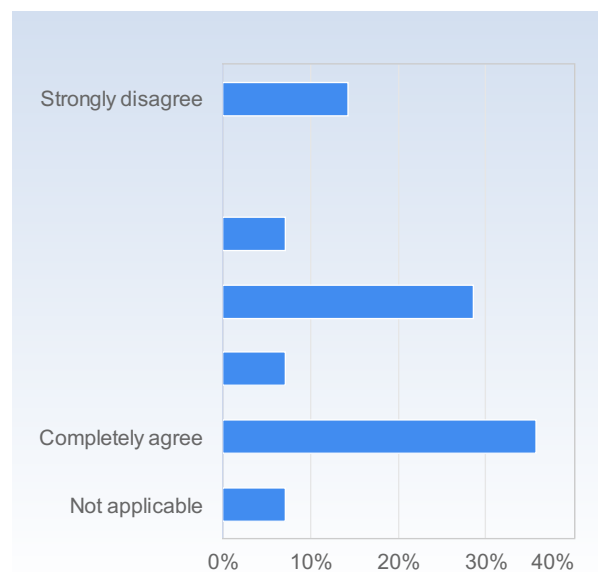
I developed my ability for critical thinking during the course	Number of responses
Strongly disagree	1 (7,1%)
	1 (7,1%)
	0 (0,0%)
	3 (21,4%)
	3 (21,4%)
Completely agree	4 (28,6%)
Not applicable	2 (14,3%)
Total	14 (100,0%)



	Mean	Standard Deviation
I developed my ability for critical thinking during the course	4,5	1,6

I became better at taking responsibility for my knowledge development

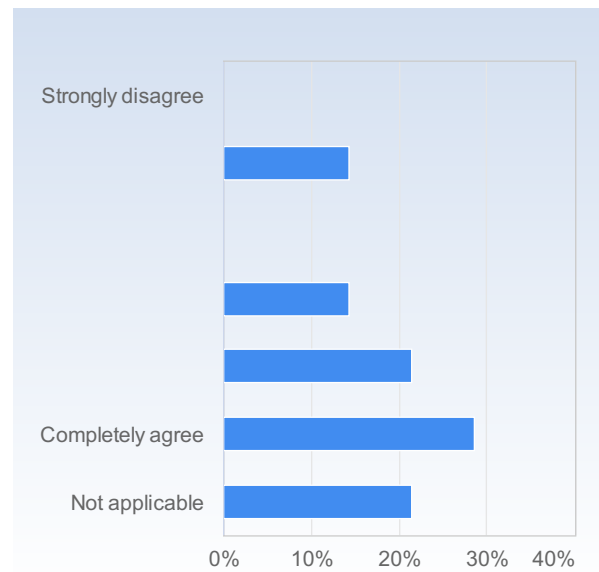
I became better at taking responsibility for my knowledge development	Number of responses
Strongly disagree	2 (14,3%)
	0 (0,0%)
	1 (7,1%)
	4 (28,6%)
	1 (7,1%)
Completely agree	5 (35,7%)
Not applicable	1 (7,1%)
Total	14 (100,0%)



	Mean	Standard Deviation
I became better at taking responsibility for my knowledge development	4,3	1,8

The course management listened to comments and ideas for improving the course

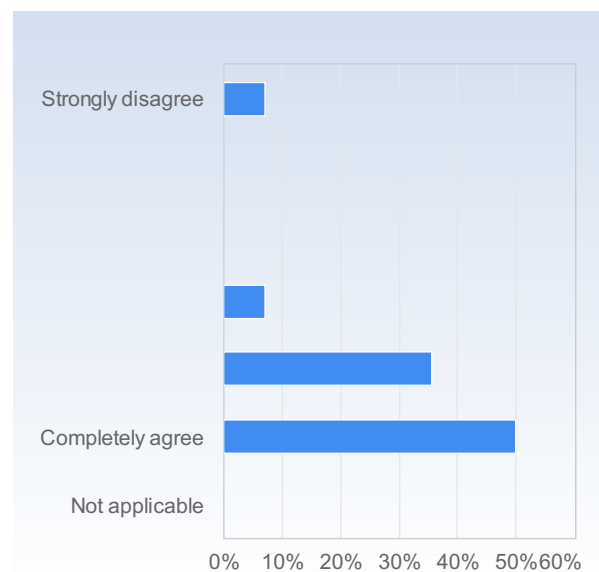
The course management listened to comments and ideas for improving the course	Number of responses
Strongly disagree	0 (0,0%)
	2 (14,3%)
	0 (0,0%)
	2 (14,3%)
	3 (21,4%)
Completely agree	4 (28,6%)
Not applicable	3 (21,4%)
Total	14 (100,0%)



	Mean	Standard Deviation
The course management listened to comments and ideas for improving the course	4,6	1,5

The physical work environment during the course was good

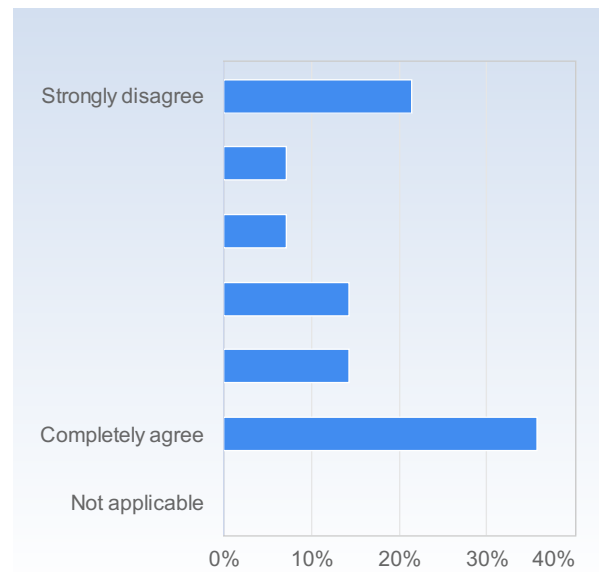
The physical work environment during the course was good	Number of responses
Strongly disagree	1 (7,1%)
	0 (0,0%)
	0 (0,0%)
	1 (7,1%)
	5 (35,7%)
Completely agree	7 (50,0%)
Not applicable	0 (0,0%)
Total	14 (100,0%)



	Mean	Standard Deviation
The physical work environment during the course was good	5,1	1,4

Timetables and other important instructions were clear and easy to locate

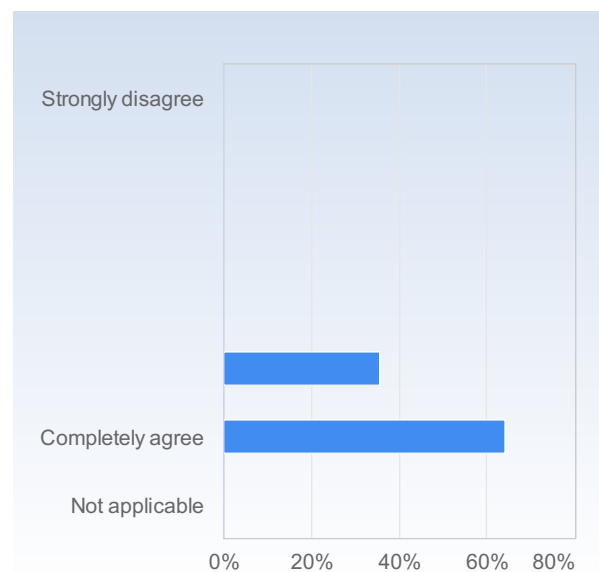
Timetables and other important instructions were clear and easy to locate	Number of responses
Strongly disagree	3 (21,4%)
	1 (7,1%)
	1 (7,1%)
	2 (14,3%)
	2 (14,3%)
Completely agree	5 (35,7%)
Not applicable	0 (0,0%)
Total	14 (100,0%)



	Mean	Standard Deviation
Timetables and other important instructions were clear and easy to locate	4,0	2,0

I felt secure in taking an active part in discussions during lectures/group exercises

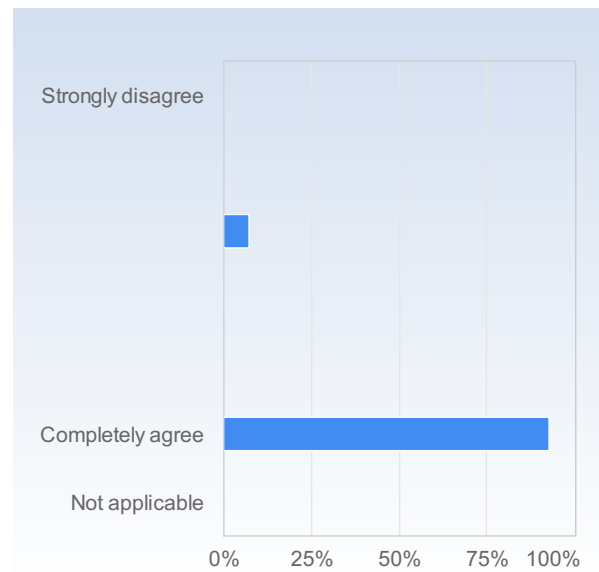
I felt secure in taking an active part in discussions during lectures/group exercises	Number of responses
Strongly disagree	0 (0,0%)
	0 (0,0%)
	0 (0,0%)
	0 (0,0%)
	5 (35,7%)
Completely agree	9 (64,3%)
Not applicable	0 (0,0%)
Total	14 (100,0%)



	Mean	Standard Deviation
I felt secure in taking an active part in discussions during lectures/group exercises	5,6	0,5

I was treated with respect by lecturers/supervisors

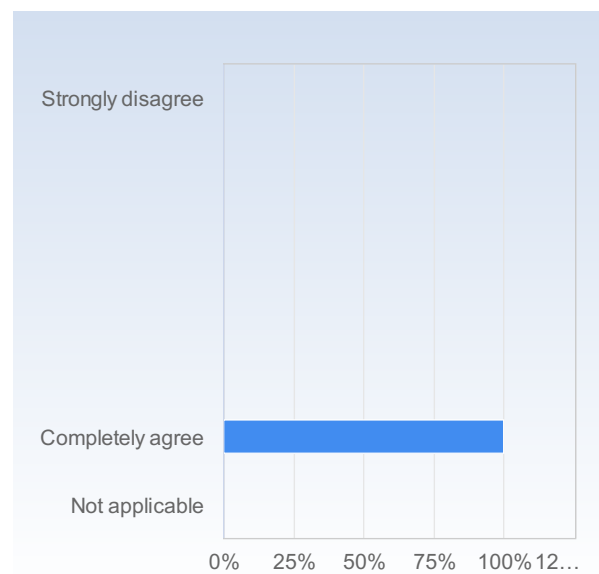
I was treated with respect by lecturers /supervisors	Number of responses
Strongly disagree	0 (0,0%)
	0 (0,0%)
	1 (7,1%)
	0 (0,0%)
	0 (0,0%)
Completely agree	13 (92,9%)
Not applicable	0 (0,0%)
Total	14 (100,0%)



	Mean	Standard Deviation
I was treated with respect by lecturers/supervisors	5,8	0,8

I was treated with respect by fellow students

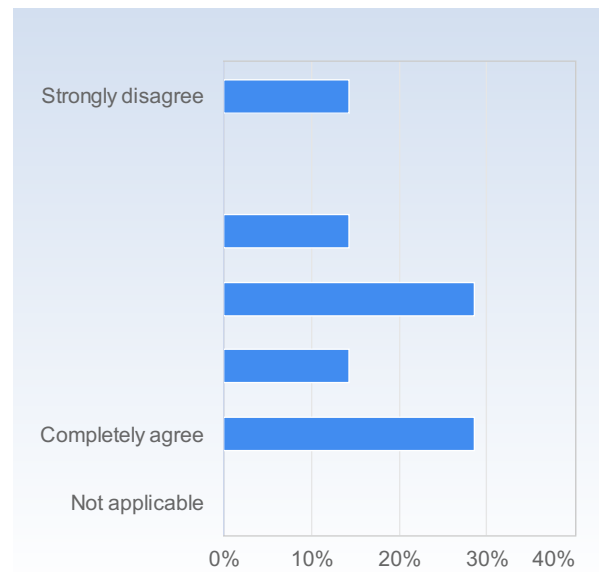
I was treated with respect by fellow students	Number of responses
Strongly disagree	0 (0,0%)
	0 (0,0%)
	0 (0,0%)
	0 (0,0%)
	0 (0,0%)
Completely agree	14 (100,0%)
Not applicable	0 (0,0%)
Total	14 (100,0%)



	Mean	Standard Deviation
I was treated with respect by fellow students	6,0	0,0

The studies during the course did not negatively affect my health

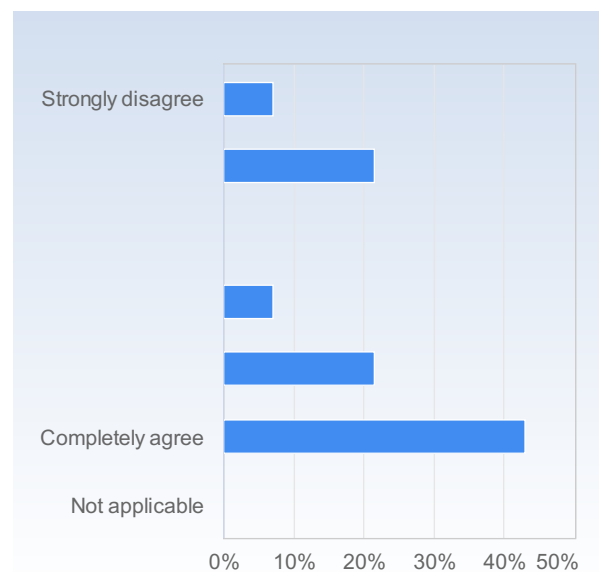
The studies during the course did not negatively affect my health	Number of responses
Strongly disagree	2 (14,3%)
	0 (0,0%)
	2 (14,3%)
	4 (28,6%)
	2 (14,3%)
Completely agree	4 (28,6%)
Not applicable	0 (0,0%)
Total	14 (100,0%)



	Mean	Standard Deviation
The studies during the course did not negatively affect my health	4,1	1,7

The workload during the course was reasonable

The workload during the course was reasonable	Number of responses
Strongly disagree	1 (7,1%)
	3 (21,4%)
	0 (0,0%)
	1 (7,1%)
	3 (21,4%)
Completely agree	6 (42,9%)
Not applicable	0 (0,0%)
Total	14 (100,0%)



	Mean	Standard Deviation
The workload during the course was reasonable	4,4	1,9

In your opinion, what was the best thing about this course?

In your opinion, what was the best thing about this course?

The course was interesting, I enjoyed the patient cases

Overall, I really enjoyed the course because I am very interested in neuroscience. I thought the content was very interesting. I also enjoyed the activities we had with the vestibular lab and the histology lab. I found that once everything was uploaded to Ortac that the content was easy to find and the study goals were usually clear.

I also really liked the assignment, it made me feel more confident that I could do research because my main worry has always been "how could I ever come up with a research question?!"

The study goals were helpful. I especially enjoyed the keywords.

The subject (nerves!)

The subject! And the way the lecturers presented it! The subject in itself is very interesting, but Anders, My and Anders contributed a lot with their enthusiasm.

I also appreciated the use of study goals and key words!

Very interesting subjects

Very good learning goals and connection of them to irats

The opportunity to learn from the lecturers own research made everything very interesting. The study goals were most of the time very clear and the teachers always were available to answer questions.

I really enjoyed the structure and order that material was presented. I thought it was a good lay out and that the amount we had to know was reasonable, plus the content was interesting. The last PBL activity was the best

I liked the subject and the content of the course. Very interesting!

The topics were very interesting, which motivated me to study.

The professors were excellent: they were caring, good at giving guidance and great lecturers.

What do you think most needs improvement?

What do you think most needs improvement?

The organisation of the course. Most weeks had an extremely high workload with over 10 chapters for self study in less than a week. One week referenced 19 chapters for self study which is completely unreasonable. The lectures often did not cover study goals but were more focused on the lecturers own area of interest. The individual assignment was interesting but still unorganised with little info about what exactly we were supposed to do and no examples. The character limit and scoring rubrics were also unclear with other instructions than we had previously gotten. My mental health was negatively affected by this course as I felt that I could not get enough rest with the high work load and having to study almost all my awake time, including weekends.

- It would be nice to have the weekends of and not have to study for an irat all weekend. Maybe next time have the lectures in the beginning of the week and then irat on thursdsy/friday so that we at least get the weekends of

- There can also be an improvement in following the schedule. Almost every time there was a module introduction the lecture after started early, and for the people who only wanted to attend the lecture they missed more than half of the lectures some times. I feel like that is not fair and that the lecture should start according to the schedule even though the introduction takes less time than anticipated.

- The third module had way to many questions and areas to be able to learn everything in one weekend. Neural control of movement, principles of sensory signaling, skeletal muscle and specific sensory systems is too much to try to learn in that short amount of time.

- For module 4 the irat questions differed a lot from what was in the lectures and in the learning goals.

I would say that maybe the lectures could be improved. I feel like many people were confused when we would have the introduction booked for an hour so then people would show up later for when the lecture was scheduled to start, but then we would start the lecture much earlier because the introductions wouldn't take very long. It might be better to just take the introduction in the time scheduled for the whole lecture.

I also thought it was strange that we would be presented with content during lectures that had nothing to do with our study goals, like with the history of the field, but then the slides that were not presented were relevant to the goals. However, this only ever happened in My's lectures. Anders Enjin had very clearly laid out powerpoints, although, the number of study goals was overwhelming, the lectures felt relevant to what we needed to know. Anders Rasmussen also had clear powerpoints and lectures that were balanced with facts about the field, but also relevant information of what we needed to know.

The course was very unstructured. Students were given different information from different people depending on who and when they asked. It would also have been helpful if the content would have been uploaded at least a day before the module begun, as many students like to look over the material beforehand. Also, having all the assignments on ortrac from day one would be helpful as I now had to wait four days to upload an assignment folder before I could hand anything in.

More days to study for the iRAT, I feel like we didn't have enough time to study for long-term memory (everything is in my short term memory and a lot is already forgotten). Even the lab sessions were hasty.

I wish the study goals and key words would be more consistent throughout the weeks.

Having the iRATs later in the weeks would give us more time to study, which would be appreciated because it's frustrating not having enough time to study something that you actually want to learn.

I feel like the last iRAT was not centered around the learning goals, and therefore became unreasonably hard. Also the lectures could have encapsulated more of the learning goals

Earlier upload of handouts etc and also a bit clearer instructions on the assignment

Irat 4 felt a little bit disconnected to learning goals of that week

The schedule needs more consistency with starting 15 past or not.

The histology lab had too much wait time, so maybe assigning time slots for each group in advance would be good.

I hope we will get more real labs in the future that are a bit more hands on and give practice for work. I also thought that the grant was not very realistic so maybe another type of assessment would be better. The question about chinese takeout flu in the computer lab is also very outdated and isn't backed by any science

Since the lectures only was to spark ones interest it was hard to know what to study. The study goals and keywords helped a lot but there was always something on the iRATs that at least I had missed to study and that was not because I didn't made an effort to learn everything I was expected to know, it was because I didn't know that I was expected to know that. So I would prefer to have the content we are supposed to know in the lectures, either on sight or in online lectures. We had it more like that with Anders enjin and I think that was the week I learned the most from.

The level of difficulty (how detailed the questions were), was not very consistent over the different iRATs. The last one was much harder than the previous ones, which came as a surprise and led to a high failure percentage. We do understand it is hard for teachers to estimate the ability of the students and they were very kind to adjust the grading accordingly for the last iRAT.

It was interesting to write our first grant, but I think it might've been helpful if we could've seen some examples before writing our own in addition to the provided instructions!



BIMB32	The Immune System	7,5 ECTS
Year	Course start: 2021-11-01 Course end: 2021-11-30 Study rate	
Course leader(s) Oonagh Shannon		
Examiner	Magnus Hillman	

The course

Number of students	At start: 34	At the end: 34
Examination module (name, credits)	Passed at first attempt	Passed later
2101 Course Portfolio	19	32
2102 Multiple Choice exam	33	1
Number of other teachers involved: 6 Of which 3 professors, 1 readers (docent), 1 holding PhD, Phd students, 1 other, and non LU or RS employed. Of which 2 were core course conveners, 4 guest lecturer, assistants, or other minor contributors.		
It was easy to find competent teachers If no, in what field of knowledge was it hard to find teachers? Why? <input checked="" type="radio"/> yes <input type="radio"/> no		
Short description of the course: The course contained four modules spanning from how the blood cells and mediators defending the body from disease to how it sometimes causes disease. The principles of vaccination was covered but also with deep focus on the impact of vaccination on both individuals and society. There was some experimental work and training of important presentation skills as well as the importance of adapting communication to a popular scientific context and audience.		
Pedagogic model(s) used in the course (exemplify how you work): Team based learning in four modules. A flipped learning model was applied with study guides/learning goals for each module. One on-campus lecture was offered for each module and several on-line lectures, each containing quiz that could be used for testing the understanding of the content with feedback. A readiness assurance process were scheduled each Thursday with 10 RAT questions taken individually as well as in teams and followed by a relevant application seminar on Friday. One work shop on illustration science was offered where graphical abstracts were covered and one lab-session as follow up on an application (Baby Rose/ Immunodeficiency) where Flow cytometry analysis was performed to verify which population of blood cells were missing.		
Major changes from last year: first time given		

Summary of course quality evaluation

Results – focus on strengths and weaknesses

What worked well.

Most students appreciated the online content and quizzes which gave a student centered focus with formative feedback when necessary. Since immunology is quite detail oriented with a lot of difficult pathways it is needed. The instructions were considered easy to locate (5.1 +/- 1.8) and the structure on Ortrac with the start page was very appreciated and helped the students to structure each module accordingly. The teachers were very appreciated and connected the content to the future professional career which added relevance to the study activities. Learning activities gave feedback on the learning outcomes (5.1 +/- 1.5) and

the assessment connected to the outcomes (5.2+/-1.3). The feedback from supervisors was not as strongly connected to outcomes (4.3 +/- 1.7) but is likely due to the course design. The professional approach was considered developed during the course (4.9 +/- 1.4) and students felt treated with respect from teachers (5.2 +/- 1.5) as well as students (5.6 +/- 1.2).

What need improvement.

Some of the students were under the impression that text books were not available for the course content. the work load was found reasonable for some students but not for all (4.2 +/- 1.6). Also, not all students became better taking responsibility for their learning (4.4 +/- 1.3).

The course portfolio was the major barrier to overcome.

Possible explanations

Although it is stated in each module learning goals that text books can (and should be) used to answer the questions this was not sufficient. Instructions on reading text book chapters might enhance the feeling of taking responsibility to the own learning for some students. But I am not certain that it will increase the score for that evaluation. We could see on Ortrac that most students used the quiz to test themselves after each lecture or video learning resource but some did not.

Perhaps instructions and assessment criteria could be modified to increase understanding of assessment in each assignment and thus increase pass rate at first attempt. Also, a more emphasized work shop on popular science could help students to understand the difference between science and popular science.

Suggestions of measures and further development

We need to highlight and be much more clear with recommended course literature for the next course. Perhaps also introducing links to the e-books available on the library. To add text book chapters with following quiz could be one way to go but it need to be carefully balanced with other resources so that we do not get information overload when it comes to learning material. We need to find balance between lectures and text books.

Instructions and assessment criteria need to be adjusted and highlighted during the workshops and seminars. A workshop in popular scientific communication will be part of next semester.

The lab-assignment will be moved to earlier in the course, content reassessed and extended over two days for more student independent lab work.

Signatures

Date: 2022 Place: *Lud.*

31/3

Course leader Student representative

OWAGH SHANNON.
Oagh Shanney

Signature

Nicola

Signature

Lene-Marten Weessel

Elucidation

*Nicola
Duble*

Elucidation

Lene-Marten Weessel

Appendix: Course evaluation

BIMB33	Host-Pathogen Interactions		7,5 ECTS
Year 21/22	Course start: 2021-12-01	Course end: 2022-01-14	Study rate 100%
Course leader(s)	Oonagh Shannon, Joakim Esbjörnsson		
Examiner	Mattias Collin		

The course

Number of students	At start: 35	At the end: 35
Examination module (name, credits)	Passed at first attempt	Passed later
Course Portfolio	25	5
Multiple Choice exam	35	
Number of other teachers involved:	Of which 2 professors, 3 readers (docent), 2 holding PhD, 1 PhD students, other, and non LU or RS employed. Of which were core course conveners, guest lecturer, assistants, or other minor contributors.	
It was easy to find competent teachers <input checked="" type="checkbox"/> yes <input type="checkbox"/> no	If no, in what field of knowledge was it hard to find teachers? Why?	
Short description of the course: The course contained four modules including an introduction to pathogens (virus and bacteria), interactions with the human host, immune system and strategies that pathogens use to cause disease. There was some experimental bioinformatic work and training of important academic writing skills. The students had three written assignments in the portfolio: 1. a report of a novel pathogen based on scientific literature, 2. a reflection on the relationship of the pathogen to sustainability and development goals (SDGs) 3. a press release based on information from an interview of a fellow student presenting their novel pathogen.		
Pedagogic model(s) used in the course (exemplify how you work): Team based learning in four modules with study guides/learning goals for each module. One on-campus lecture was offered for each module (50% virus, 50% bacteria) and several on-line lectures, and literature resources. A readiness assurance process was scheduled once a week with 10 RAT questions taken individually and then discussed in teams with a tutor. During this session burning questions were identified for discussion at an application seminar the next day. Two workshops were given that focussed on the written assignments that were submitted as the final examination of portfolio.		
Major changes from last year: First time given		

Summary of course quality evaluation

Results – focus on strengths and weaknesses

The course worked well. The students understood the learning goals, appreciated that they were related to previous knowledge and felt supported by the teachers/course leaders. The feedback from the tutor at the team RAT worked well and the use of student identified burning questions was highly appreciated. The experimental data lab was well received but the background knowledge could have been improved by moving the associated lecture to an earlier time point.

The instructions to the written assignment were not clear in relation to the rubrics, for example the number of citations per virulence strategy. The course goals were included in the instructions and caused some confusion as to the level of detail required in the assignment.

Possible explanations

A completely new course with new goals, teaching strategies, examination and rubrics.

Suggestions of measures and further development

An appropriate text book is not recommended to the students because of the tight schedule including a Christmas break. We will therefore increase the resources (on campus and on line lectures, scientific articles, book chapters) that are provided and clearly link these to course goals.

The role of the tutors in team Rat was important for discussion and can be improved by providing strict instructions to discuss each question thoroughly and clearly motivate all alternatives before moving on.

The instructions and assessment criteria need to be adjusted and highlighted in more workshops/seminars for the written assignments. Three written assignments was a heavy workload confined to the end of the course. The press release did not perform well as an assessment because it reflected an interdependency on the quality of a fellow students work. In addition the distinct features of a press release as a form of popular science writing were not clearly communicated. The reflection on SDG goals worked well and clearly distinguished high performing students. The press release will not be included in the portfolio next term and is replaced by an individual reflection on SDG goals.

A mid course goal will be introduced for written assignments in order to provide feedback and facilitate continuous progression throughout the course. In addition a pre developed skeleton with headers and guidelines will complement the instructions to the written assignment and provide a clear starting point for students.

Signatures

Date: 2022-	Place:
Course leader	Student representative
Signature	Signature
Elucidation Oonagh Shannon Joakim Esbjörnsson	Elucidation

Appendix: Course evaluation

BIMB40	Organ systems and homeostasis of the human body		15 ECTS
Year 21/22	Course start: 2022-01-17	Course end: 2022-03-22	Study rate 100%
Course leader(s)	Anders Enjin		
Examiner	Bodil Sjögreen		

The course

Number of students	At start: 35	At the end: 35		
Examination module (name, credits)	Passed at first attempt	Passed later		
Courses portfolio, 7.5 credits	23	11		
Written tests, 7.5 credits	26	5		
Number of other teachers involved: 3	Of which professors, 2 readers (docent), 1 holding PhD, Phd students, other, and non LU or RS employed. Of which were core course conveners, guest lecturer, assistants, or other minor contributors.			
It was easy to find competent teachers <input checked="" type="checkbox"/> yes <input type="checkbox"/> no	If no, in what field of knowledge was it hard to find teachers? Why?			
Short description of the course: Course in human physiology				
Pedagogic model(s) used in the course (exemplify how you work): TBL-inspired with soft iRATs that gives bonus points to a written final exam				
Major changes from last year: New course that build on content from previous course in physiology (BIMA42)				

Summary of course quality evaluation

Results – focus on strengths and weaknesses

Only 42% of students responded but overall positive feedback on pre-printed questions (Average >4,3 on all questions)

In the written comments many expressed a appreciation of the practicals (dissection, histology, lab), structure of course with no exams just after weekends and a general appreciation of the teachers.

Comments on weaknesses mainly focused on density of schedule in last course weeks and the 'How we know' excersise, in particular the debate.

Possible explanations



"How we know" is a new excersise and suffered some childhood diseases

Suggestions of measures and further development

Scheduling will be changed so the debate will come earlier in the course. Also the application session of each week will be on Fridays instead of Mondays.

"How we know" will be modified slightly to make it a better learing experience for the students

Signatures

Date: 2022-06-16	Place: Lund
Course leader	Student representative
Signature 	Signature 
Elucidation Anders Enjin	Elucidation Lene-Marlen Wessel, Nicolas Duble

Appendix: Course evaluation

BIMB41	Molecular Basis of Disease		7.5 ECTS
Year 21/22	Course start: 2020-03-24 2022-03-23	Course end: 2020-05-01 2022-04-29	Study rate 100%
Course leader(s)	Saema Ansar & Anna-Karin Larsson Callerfelt		
Examiner	Bodil Sjögreen		

The course

Number of students	At start: 33	At the end: 33
Examination module (name, credits)	Passed at first attempt	Passed later
IRAT1	28	4
IRAT2	30	1
IRAT3	29	2
Portfolio	30	1
Number of other teachers involved: 11	Of which 1 professors, 8 readers (docent), 2 holding PhD, Phd students, other, and non LU or RS employed. Of which 3 were core course conveners, 8 guest lecturer, assistants, or other minor contributors.	
It was easy to find competent teachers <input type="checkbox"/> yes <input checked="" type="checkbox"/> no	If no, in what field of knowledge was it hard to find teachers? Why?	
Short description of the course: The students learn about diseases that integrate physiology, cell biology and chemistry with pathophysiology. The course consists of four modules with an aim to create conditions for a holistic perspective on these diseases at the molecular, cellular and systemic level. The first module focuses on basic pathophysiology at the molecular level. Other modules focus on organ system-related diseases such as cardiovascular diseases, kidney diseases, metabolic diseases and their complications.		
Pedagogic model(s) used in the course (exemplify how you work): The course is based on TBL concept and has four topic modules within basic pathology, cardiovascular diseases, kidney disease and diabetes where the students receive a study guide for each module with study goals, literature instructions, some study questions and keywords. The students are given keynote lectures and then they have 3 iRATs and tRATs followed by an application for each module. They also have a Portfolio (5 hp) with a written assignment about the pathology of a specific disease related to the modules. The students give feed-back on the abstract. The written assignment is presented orally as a poster presentation. The poster presentation is organised as a fictive mini-conference and the posters are evaluated and scored by both teachers and students. Both the written and oral presentation is assessed by specific assesment criteria and rubrics.		
Major changes from last year:		



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Course Quality Closure

Biomedicine Programme (Bachelor)

The course is completely new although part of the subject content is based on the previous course BIM43. The teaching format has changed from PBL to TBL concept. All teaching material (including lectures, RATs, applications, guidelines and assessment criteria) have been newly developed and a lot of time has been allocated to course development.

Summary of course quality evaluation

Results – focus on strengths and weaknesses

The students thought the topics were relevant although the basic pathology could be incorporated to the other weeks as they felt they already had this explained on previous courses. The students really enjoyed doing the posters and poster presentations. The students thought the course was a bit unclear as the study guides and the assessment criteria were not detailed enough in the beginning of the course.

Possible explanations

The course leaders had some issues with the new teaching module Ortrac, the assessment criteria were from the beginning not adopted to pass and pass with distinction and did not align to the already existing assessment criterias on the program. These criteria was altered during the course and aligns to the ones on the program. In the beginning group work with the TBL applications was performed in separate groups rooms but this was not feasible and was changed during the course to instead take place in an active learning room.

Suggestions of measures and further development

To have Ortrac up to date including assessment criteria. To remove the first module with basic pathology. To have more detailed study guides including links to online lectures, quiz, specific papers (reviews), more in depth questions and key words related to the topic in each module. To have the applications in active learning rooms and not in small group rooms.

The course would benefit to be given together with BIMB42 as a 15 hp course to increase student learning activities and feedback and also to reduce the amount of course administration.

Signatures

Date: 210621	Place: Lund
Course leader	Student representative
Signature <i>Saema Ansar & Anna-Karin Larsson Callerfelt</i>	Signature <i>Nicolas Doble</i> <i>Lore Wessel</i>
Elucidation Saema Ansar & Anna-Karin Larsson Callerfelt	Elucidation <i>Nicolas Doble</i> <i>Lore Wessel</i>

Appendix: Course evaluation

BIMB42	Pharmacology and Drug Discovery		7.5 ECTS
Year 21/22	Course start: 2022-05-02	Course end: 2022-06-03	Study rate 100%
Course leader(s)	Saema Ansar & Anna-Karin Larsson Callerfelt		
Examiner	Bodil Sjögren		

The course

Number of students	At start: 34	At the end: 34
Examination module (name, credits)	Passed at first attempt	Passed later
IRAT1	30	3
3IRAT2	33	1
IRAT3	33	0
Portfolio	28	3
Number of other teachers involved: 7	Of which professors, 5 readers (docent), holding PhD, Phd students, other, and 2 non LU or RS employed. Of which 3 were core course conveners, 4 guest lecturer, assistants, or other minor contributors.	
It was easy to find competent teachers <input checked="" type="checkbox"/> yes <input type="checkbox"/> no	If no, in what field of knowledge was it hard to find teachers? Why?	
Short description of the course: The course starts with an introduction to pharmacodynamics, pharmacokinetics, toxicology and pharmacogenetics, covering basic pharmacological concepts. This then serves as a basis for the pharmacological studies in the coming weeks with connections to pathophysiology and specific diseases related to cardiovascular pharmacology. During these weeks, different aspects are discussed such as pharmacological and non-pharmacological intervention, the mechanisms behind drug effects at the molecular, cellular and organ levels, as well as ethical stances from a broad perspective and reflection how drug development affect the UNs global goal. During the course, different parts of the drug development process are introduced—from the early pre-clinical stages to clinical trials and approval. The course consists of four modules: Module 1: Pharmacokinetics and Pharmacodynamics Module 2: Drug Discovery and Drug Development Module 3: Cardiovascular Pharmacology Module 4: Portfolio_written assignment, feedback and oral presentation		
Pedagogic model(s) used in the course (exemplify how you work):		

The course is based on TBL concept and has three topic modules within pharmacokinetics and pharmacodynamic, drug discovery and development and cardiovascular pharmacology where the students receive a study guide for each module with study goals, literature instructions, some study questions and keywords. The students are given keynote lectures and then they have 3 iRATs and tRATs followed by an application for each module (1-3). They also has a written assignment where the aim is to describe and present a new pharmacological intervention and drug development for a specific disease in the cardiovascular area. The essay gives the student the opportunity to search for relevant scientific literature, evaluate the information, reflect on ethical considerations and present this in an essay corresponding to a review.

There is a peer-review assignment where the student provide and receive constructive feedback on the written work and acts as an opponent on the oral presentation.

The written assignment is presented orally as a power-point presentation. The student gets questions both by students and teachers. The presentation is evaluated and scored by minimum 2 teachers. Both the written assignment and oral presentation are assessed by specific assesment criteria and rubrics.

Major changes from last year:

The course is completely new although part of the subject content is based on the previous course BIM43. The Drug Discovery part is new compared to how previous course was designed. The teaching format has changed from PBL to TBL concept. All teaching material (including lectures, RATs, applications, guidelines and assessment criteria) have been newly developed and a lot of time has been allocated to course development.

Summary of course quality evaluation

Results – focus on strengths and weaknesses

The students thought the topics and content of the module was very interesting. The students really enjoyed doing the project assignment and oral powerpoint presentations. It was nice with guest lectures from the industry but enough with one and since the guest lectures was not uploaded on ortract the student thought that it will be nice to get some supplementary material describing the concept that are presented by guest lecture on ortrac. They also suggested to move shift place on module 2 and 3. The students thought the assignment was a bit unclear and instructions needs to be even clearer.

Possible explanations

The lectures from the industry was not allowed to upload on ortrac instead papers reflecting the topic was uploaded as supplementary materials. Information meeting was hold regarding the assignment for student to be able to get their questions answered and to make the assignment clearer. Unfortunately, it was nbot possible to schedule it earlier because of the karneval and ascension holiday. To written instructions should be clearer with possibility to early information/feedback from teachers.

Suggestions of measures and further development

To shift place on module 2 and 3 and remove iRAT for module 2 "Drug Discovery and Development" To only have one guest lecture from industry and upload some supplementary material reflecting the topic presented by the guest lecture instead of just papers. To have clearer instructions for the assignment and possibility for student to get feedback early in the process of the assignment. To have more detailed study guides including links to online lectures, quiz, specific papers (reviews), more in depth questions and key words related to the topic in each module.

The course would benefit to be given with BIMB41 as a 15 hp course to increase student learning activities and feedback.

Signatures

Date: 2022-09-08	Place: Lund
Course leader	Student representative
Signature <i>Saema Ansar</i> <i>Anna-Karin Larsson Callerfelt</i>	Signature <i>Lene-Marlen Wessel</i>
Elucidation Saema Ansar and Anna-Karin Larsson Callerfelt	Elucidation <i>Lene-Marlen</i> Martine Wessel and Nicolas Duble

Appendix: Course evaluation



Programmets namn

Kursbokslut

Blanketten skickas med e-post till utbildningsadministratören senast fyra (4) veckor efter kursslut

Kursfakta

Kursens namn: Utvecklingsbiologi och Genetik	Kurskod BIMA82
Hemsida: https://moodle.med.lu.se/course/view.php?id=3155	
Kursansvarig: Stefan Baumgartner	Antal poäng 15 hp
Antal studenter 33	Startdatum 2021-08-31 Slutdatum: 2021-10-29
Antal studenter som klarat ordinarie examinationer 18st	
(ange examinationsformer): skriftlig	svarat på kursvärderingen: 15 st

Utvärdering

Beskrivning av kursens uppläggning:

PBL:	Cases of weeks 3 and 8 were too abstract and were found insufficient to enable a thorough discussion. In general, students wish to have cases where to an increasing degree problems are incorporated.
Weekly learning goals	Upon student's request, the initial layout to publicize the goals at the end of PBL II was changed to the end of PBL I which apparently helped to boost the learning process.
Lectures:	were often found confusing, slides were overloaded and didactically bemusing.
"Sum-up" hour:	Usually helped a lot, particularly if held on-site and if the white board was used.
Articles:	Lengths of articles should be better coordinated such that all groups have equal workload. Make clear in instructions that students should peel out the essential of the article, rather than trying to present all figures. Role as opponent and chairpeople was new and students were largely unfamiliar with it.
Calc. exercises:	Deemed adequate and were well received.
Lab report:	Some students experienced this report as a good exercise, some did not profit a lot and considered it less useful.
Exams:	In general OK and reflecting the topics. Week 1 led to a bad result in the essay question which would have substantially affected the final result. Teachers then decided that the essay question should contribute with 5p to the final points only.
Workload:	Was considered OK and manageable. Week 5 was demanding.
Glossary:	Very little use, location within Moodle should be changed such that is noticeable, and teachers should emphasize it more.

BIMA81	Molecular Medicine	15 ECTS
Year 21/22	Course start: 2020-11-01 21-11-01 Course end: 2021-01-15 22-01-16	Study rate 100%
Course leader(s)	Anna-Karin Larsson Callerfelt	
Examiner	Maria Swanberg	

The course

Number of students	At start: 37	At the end: 37
Examination module (name, credits)	Passed at first attempt	Passed later
Written MCQ exam	25	4
Portfolio	13	23
Number of other teachers involved: 29	Of which 5 professors, 10 readers (docent), 10 holding PhD, 4 Phd students, other, and non LU or RS employed. Of which 7 were core course conveners, 22 guest lecturer, assistants, or other minor contributors.	
It was easy to find competent teachers <input checked="" type="checkbox"/> yes <input type="checkbox"/> no	If no, in what field of knowledge was it hard to find teachers? Why?	
Short description of the course: The course involves a portfolio (7.5 hp) and specific week topic subjects (7.5 hp) with a TBL approach which includes self-studies, lectures, readiness assurance tests, group work (TBL applications) and oral presentations and discussions. The different week topics are Cancer, HIV, Gene Therapy, Pulmonary Medicine, Stem cell therapy and Neurodegenerative disorders. All literature is based on peer-reviewed original scientific articles and reviews. Within the portfolio the students are writing two research proposals (4 pages each) to design and practice wrting proposals and peer-review for funding in academia.The course is examined in two steps: 1) by specific criteria that should be fulfilled for the portfolio and 2) by a written exam with MCQ questions (10 per topic week). The course quality closure has been compiled by course leader (Anna-Karin Larsson-Callerfelt), examiner (Maria Swanberg) and student representatives (Klara Laurell and Sanna Jonasson).		
Pedagogic model(s) used in the course (exemplify how you work): The week topics are based on Team-based learning (TBL). A typical week: Monday starts with an Introductory lecture for the week topic. Monday and Tuesday the students have self-studies combined with 2-3 lectures and a study guide with key words, study questions and literature suggestions (articles, on line lectures, a.o). On Wednesday morning the students have iRATs and tRATs (10 MCQ) which are followed up by a general discussion in whole class and lecture/presentation related to the iRATs. The RATs are followed up by TBL applications within the week topic in the form of group work which is presented in Jigsaw groups or whole class presentations on Friday morning. There is also time allocated for inspirational lectures from researchers on Friday mornings.		

The portfolio is based on two research proposals (RPs): The first one is subjected to peer-review between the students and revision before submission for evaluation and feed-back from a teacher. This way, the students practise constructive criticism and understanding the the peer-review system in research society. The students then write a second proposal which also include a budget that they present orally at a seminar where some of the students act as a review board. The students then receive oral feed-back from their peers and both oral and written feed-back from the responsible teacher. The portfolio gives the student an understanding of how research propsals are funded in academia as well as practise in project design and scientific writing.

Major changes from last year:

Based on last year's course evaluation, we allowed even more time for the portfolio and had the submission of RP2 and feedback from teachers before the final written exam. We also improved the study guides for self studies and told the teachers to strictly stay with the schedule and TBL concept using iRATs, tRATs and applications. We also added the Jigsaw model on Fridays on more week topics to increase activity among the students and enhance learning skills by teaching each others.

Summary of course quality evaluation

Results – focus on strengths and weaknesses

Overall the students enjoyed the course and thought that they had learned many skills relevant for Biomedicine and been able to practice what they had learnt at previous courses and put these to a context. Most of the students thought that the work load was reasonable, which support our previous decisions to remove one week topic from the course and increase time for the portfolio. This year we adjusted submission time of RP2 and written feedback was given before the final written exam. The students thought the study guides were very useful and valuable. The students enjoyed having the teaching on campus and not through zoom. They also valued presentations in smaller groups using Jigsaw model. We have previously noted that the students want to have closer contact with the main course leader. Improvements since last year have been done to achieve an even more common course structure on the topic weeks, such as improved study guides with recommended reading, keywords and study questions, all week teachers adhered to the TBL concept using iRATs and tRATs and more course leaders used the Jigsaw technique to promote student activity. However, on some specific course weeks improvements could still be done, such as the week topic responsible teachers adjust to the preset schedule, give relevant in depth lectures, have similar length (time) of student presentations, and have smaller groups for presentations by using the Jigsaw model/ strategies to increase student activity. This year all week topics ended with presentations which the students thought really helped them in learning and practicing presentation skills, however they would also like to see other activities on Fridays and not merely "to find new treatment strategies". Other skills such as in depth learning may also be supported such as including or mixing presentations with questions that should to be answered by all students in the group and then discussed in the group and in whole class. The students had preferred to alter the group constellations and not have the same groups during the entire course, however this was not highlighted by the students during the course. The students thought they received to little information about the QPS exam.



Possible explanations

This year all teaching and written exam activities were on campus, the portfolio examination had to be on zoom due to increased COVID-19 spreading. The course leader attended the Friday seminars to check if something needed to be adjusted or if there were any problems, which was appreciated by the students. A weekly written evaluation form for each week topics was also done to catch if there were any week-specific problems or general problems in the specific weeks.

Suggestions of measures and further development

This is the final year that we have BIMA81 at the Biomedicine program. A major issue has been that we in general have given an overview instead of in depth molecular details on the week specific topics due too shortness of time. This will probably not be an issue when the specific topics will be covered during more weeks. For future courses we recommend to have introductory lectures and study guides for self-studies that covers the subject with combined in-depth lectures and to have specific course descriptions how we work with TBL (RATs and applications). To have presentations even more interactive and not only unidirectional presentations.

Signatures

Date: 220209	Place: Lund
Course leader	Student representative
Signature 	Signature 
Elucidation Anna-Karin Larsson Callerfelt	Elucidation Klara Laurell & Sanna Jonasson

Appendix: Course evaluation