

## Course analysis (course evaluation)

<b>Course code</b> 4BI118	<b>Course title</b> Bioentrepreneurship	<b>Credits</b> 3
<b>Semester (VT/HT-yr)</b> HT25	<b>Dates</b> 15 September – 26 September	

<b>Course Director</b> Madelen Lek	<b>Examiner</b> Hanna Jansson
<b>Teachers in charge of different parts of the course</b> -	<b>Other participating teachers</b> Samer Yammine, Malin Björklund and Patrik Blomqvist

<b>Number of registered students at the 3-week check</b> 58	<b>Number passed at final course day</b> 37	<b>Response frequency course valuation survey</b> 41,38%
<b>Other methods for student influence</b> (in addition to the final course valuation/survey) Dialogue during course and course council after the course		
<b>Feedback reporting of the course evaluation results to the students</b> At course council (251021) and through canvas (251022)		

### Note that...

The analysis should (together with a summarising quantitative summary of the students' course evaluation) be communicated to the education committee at the department responsible for the course, and for programme courses, also to the programme coordinating committee.

The analysis was communicated to the education committee on the following date: 251022

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### 1. Description of any changes implemented since the previous course occasion based on the views of former students

The individual exam was changed from a home exam essay to an on-site written exam. The exams were scheduled on separate days, with one day free to prepare for the written exam. The social science research and literature were reduced substantially.

### 2. Brief summary of the students' evaluation of the course

The questions are new for this year, and there is a larger focus on qualitative responses. The analysis will, for that reason, be more qualitative as well. The analysis should be seen in the light of the fairly low response rate of 41%, thus not being necessarily representative of the majority of the class.

Overall, the answers are spread all over the scale, with most students enjoying the course. Since the spread of points is sometimes large, the median response for the quantitative questions will be used for the analysis.

The question "*The course was designed in a way that provided me with opportunities for active learning*" had a median of 5 on a 6-point scale, and the qualitative comments highlighted that the cases and interactive class discussions were valuable.

The question “*I felt included and respected during the course*” had a median response of 6 on a 6-point scale, with very few comments.

The question “*the course as a whole was good*” had a median response of 4 on a 6-point scale, and the comments from this question, as well as the open question on suggested improvements to the course, indicated some issues that will have to be tended to for the next course opportunity. The most frequent comments will be addressed in this analysis.

Some students sensed a disconnect between the different parts of the course, and there was a comment repeated at the course council about the disconnect between BIO and entrepreneurship. All case studies and lectures were, however, focusing on the bio aspect except the entrepreneurial process lecture, which focused on the core of bioentrepreneurship i.e. entrepreneurship theory, and the research methods lecture. The prototyping workshop got mixed comments. Many enjoyed it, but some did not appreciate “arts and crafts” in their study. For next year, the teacher of the workshop will be reminded that the students have already chosen a problem to work with and also to adhere to the instructions that were shared by next years course director beforehand.

### **Presentation**

There were several comments on the grading criteria for the presentation e.g. that they were not clear, and there were even suggestions that all groups should have passed regardless of whether the grading criteria were fulfilled or not. The use of the grading criteria is, however, non-negotiable, but the next course director is encouraged to look at the criteria for the next course to ensure that they are clear.

### **Written exam**

Overall, there were many feelings about how the written exam should have been done. These feelings were again communicated at the course council with suggestions on letting the two external lecturers write questions and grade the exam. The course director has ample knowledge of all parts of the course to be able to write and grade the exams. The feeling that this year’s course director was not competent to write and grade an exam in this subject was communicated in many ways, some very unconstructive, and the students are encouraged to reflect on their way of communicating for future courses.

All material that could be included in the exam was marked with yellow on Canvas, indicating specifically what would be studied. Some students indicated that the entrepreneurial process was unclear, especially in the exam, and that students had different opinions on what this process looks like. There was a lecture in the course called the entrepreneurial process, with ONE specific process referred to as the entrepreneurial process (with a figure). Both the lecture and the book chapter that presents this process figure were part of the indicated material for the exam. At the course council, there were further suggestions that social science exams should be freer and not dictated by specific terms. This is not aligned with how this subject is taught. There is plenty of room for free discussion when that is appropriate (as in the case studies). However, specific processes and models were also introduced in the course. Several students suggested that names and concepts of the introduced processes were not important; that you should be free to speculate about them. However, as in other subjects, there is no flexibility in the names and concepts included in a process or model.

There were also comments about the exam questions not covering the entire material of the course. The course director is willing to change that; however, an exam with a question on every lecture and paper from the course will be longer and more extensive. As some students have indicated that the exam is stressful already, that might not be feasible. A recurring comment was also the use of the word “paradoxical” in the exam. The course director acknowledges that this specific word could have been

removed; however, the exam results indicate that if you understood what the entrepreneurial process was, you also understood this question, despite the word paradoxical.

Some students communicated that it would have been more appropriate with an essay. All previous years of this course had an analytical essay as the examination but stated that they preferred a written exam. The switch to a written exam was new for this year, as communicated at the course introduction.

With regards to the problems on the examination day, e.g. logging into the exam and late entrance for students who registered late for the exam, were out of the control of the course director. Registration for the exam will be addressed at the course start next year, at the same time as that course director reminds those who have not registered for the course.

### **Overall feedback**

The response to the question of whether “*The examination was relevant in relation to the learning outcomes*” reflects the comments on the exams as indicated above, with a median of 3 on a 6-point scale. There were several suggestions on removing the individual exam, as the students perceived it to be stressful to have both a group presentation and the individual exam. The reasoning for having an individual exam is to ensure that all students get the final grade based on their own effort and not on the group’s performance. However, the current course director is open to removing this opportunity if that is what the students prefer. Next year’s course director will have to consider whether there should be an individual exam or if the course syllabus should be changed. The format of the individual exam (if kept) should also be considered.

The workload was seen as reasonable (median 4,5), the course structure and methods were indicated as relevant (median 4), the students took responsibility for their own learning (median 5), and most students indicated that they could turn to the teacher for guidance (median 4).

Finally, the strengths of the course were indicated as the case studies, lecture, external lecturers and the interactive aspects of the course.

### **3. The Course Director’s reflections on the implementation and results of the course**

This course is different from the other courses of the programme, and that is reflected in the span of responses and comments. Some appreciate the course and the way the teaching is done, and some do not. Maybe that is as it should be when including a course on bioentrepreneurship in this programme.

#### ***Strengths of the course:***

The case studies  
The interactive lectures  
The external lecturers.

#### ***Weaknesses of the course:***

The working of exam questions  
The miscommunication of the already set problem in the prototyping workshop

### **3. Other views**

Some comments were derogatory, and the students who wrote these comments are encouraged to focus on constructive feedback in the future.



**Karolinska  
Institutet**

#### **4. Course Director's conclusions and any suggestions for changes**

Next year's course director should

- Work on a better alignment between lectures throughout the course.
- Schedule the prototyping workshop earlier in the course and ensure that the teacher of the workshop understands the instructions.
- Make sure to remind the students to register for the exam at the introduction lecture.
- Consider removing the individual exam. The grades will then be based on the group project only.
- Communicate with the programme committee on the expectations for individual feedback on all examinations and the level of detail in the grading rubrics.

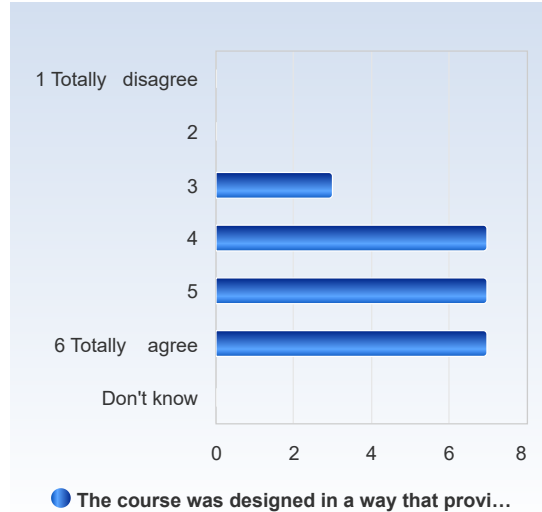
**Appendix: the short version of the survey**

## 4BI118 Bioentrepreneurship HT2025

Respondents: 58  
Answer Count: 24  
Answer Frequency: 41.38%

**The course was designed in a way that provided me with opportunities for active learning. For example: seminars with discussions, group work, projects, student presentations, role play, peer learning, practical exercises, laboratory work, workplace-based learning, etc.**

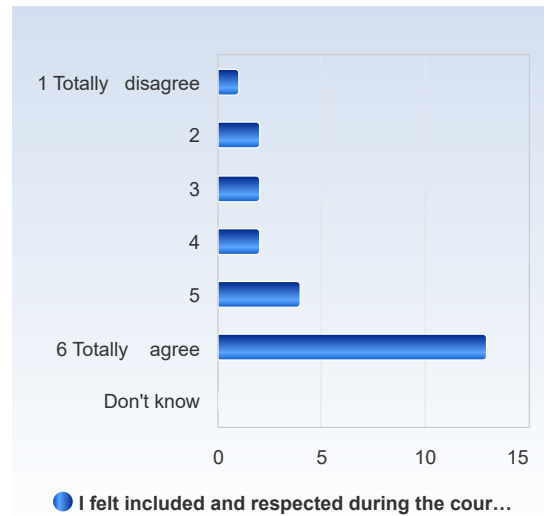
The course was designed in a way that provided me with opportunities for active learning. For example: seminars with discussions, group work, projects, student presentations, role play, peer learning, practical exercises, laboratory work, workplace-based learning, etc.	Number of responses
1 Totally disagree	0 (0.0%)
2	0 (0.0%)
3	3 (12.5%)
4	7 (29.2%)
5	7 (29.2%)
6 Totally agree	7 (29.2%)
Don't know	0 (0.0%)
<b>Total</b>	<b>24 (100.0%)</b>



	Mean	Standard Deviation	Coefficient of Variation	Min	Lower Quartile	Median	Upper Quartile	Max
The course was designed in a way that provided me with opportunities for active learning. For example: seminars with discussions, group work, projects, student presentations, role play, peer learning, practical exercises, laboratory work, workplace-based learning, etc.	4.8	1.0	21.7 %	3.0	4.0	5.0	6.0	6.0

**I felt included and respected during the course. For example: I was comfortable collaborating with other students, speaking in front of the group, answering teachers' questions, and I was listened to (not interrupted, ridiculed, or similar).**

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1 Totally disagree	1 (4.2%)
2	2 (8.3%)
3	2 (8.3%)
4	2 (8.3%)
5	4 (16.7%)
6 Totally agree	13 (54.2%)
Don't know	0 (0.0%)
Total	24 (100.0%)



	Mean	Standard Deviation	Coefficient of Variation	Min	Lower Quartile	Median	Upper Quartile	Max
I felt included and respected during the course. For example: I was comfortable collaborating with other students, speaking in front of the group, answering teachers' questions, and I was listened to (not interrupted, ridiculed, or similar).	4.9	1.6	32.2 %	1.0	4.0	6.0	6.0	6.0

**The course as a whole was good.**

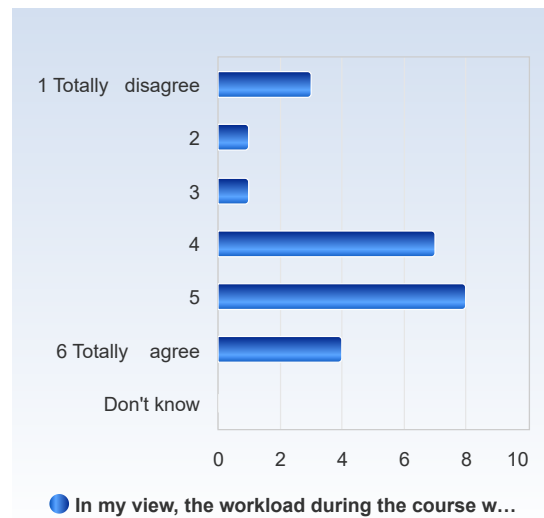
The course as a whole was good.	Number of responses
1 Totally disagree	2 (8.3%)
2	5 (20.8%)
3	3 (12.5%)
4	7 (29.2%)
5	6 (25.0%)
6 Totally agree	1 (4.2%)
Don't know	0 (0.0%)
Total	24 (100.0%)



	Mean	Standard Deviation	Coefficient of Variation	Min	Lower Quartile	Median	Upper Quartile	Max
The course as a whole was good.	3.5	1.4	39.9 %	1.0	2.0	4.0	5.0	6.0

**In my view, the workload during the course was reasonable in relation to the extent of the course/number of credits awarded.**

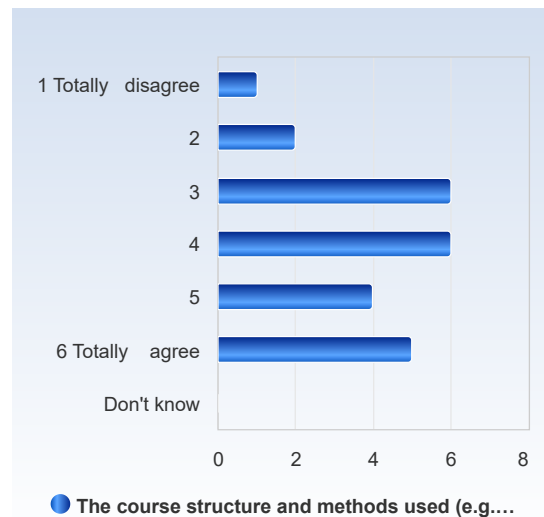
In my view, the workload during the course was reasonable in relation to the extent of the course /number of credits awarded.	Number of responses
1 Totally disagree	3 (12.5%)
2	1 (4.2%)
3	1 (4.2%)
4	7 (29.2%)
5	8 (33.3%)
6 Totally agree	4 (16.7%)
Don't know	0 (0.0%)
Total	24 (100.0%)



	Mean	Standard Deviation	Coefficient of Variation	Min	Lower Quartile	Median	Upper Quartile	Max
In my view, the workload during the course was reasonable in relation to the extent of the course/number of credits awarded.	4.2	1.6	37.2 %	1.0	4.0	4.5	5.0	6.0

**The course structure and methods used (e.g. lectures, exercises, seminars, assignments etc.) were relevant in relation to the learning outcomes.**

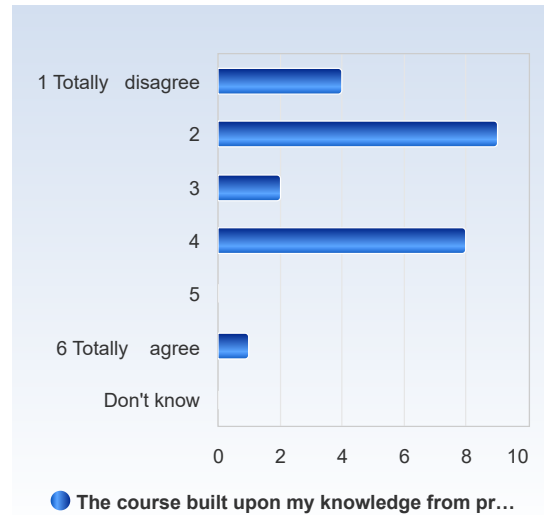
The course structure and methods used (e.g. lectures, exercises, seminars, assignments etc.) were relevant in relation to the learning outcomes.	Number of responses
1 Totally disagree	1 (4.2%)
2	2 (8.3%)
3	6 (25.0%)
4	6 (25.0%)
5	4 (16.7%)
6 Totally agree	5 (20.8%)
Don't know	0 (0.0%)
Total	24 (100.0%)



	Mean	Standard Deviation	Coefficient of Variation	Min	Lower Quartile	Median	Upper Quartile	Max
The course structure and methods used (e.g. lectures, exercises, seminars, assignments etc.) were relevant in relation to the learning outcomes.	4.0	1.4	35.4 %	1.0	3.0	4.0	5.0	6.0

### The course built upon my knowledge from previous courses in the programme.

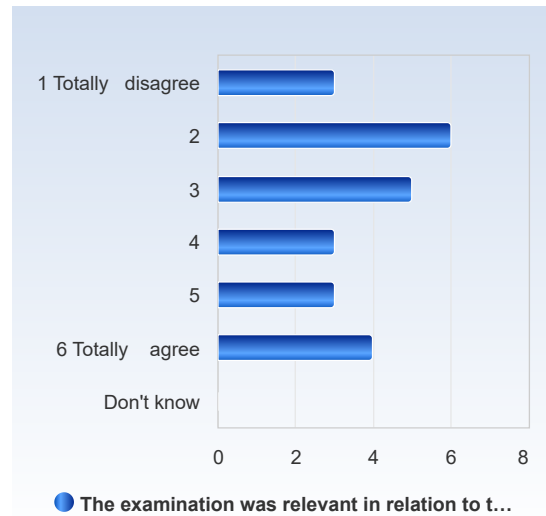
The course built upon my knowledge from previous courses in the programme.	Number of responses
1 Totally disagree	4 (16.7%)
2	9 (37.5%)
3	2 (8.3%)
4	8 (33.3%)
5	0 (0.0%)
6 Totally agree	1 (4.2%)
Don't know	0 (0.0%)
Total	24 (100.0%)



	Mean	Standard Deviation	Coefficient of Variation	Min	Lower Quartile	Median	Upper Quartile	Max
The course built upon my knowledge from previous courses in the programme.	2.8	1.3	48.3 %	1.0	2.0	2.0	4.0	6.0

**The examination was relevant in relation to the learning outcomes.**

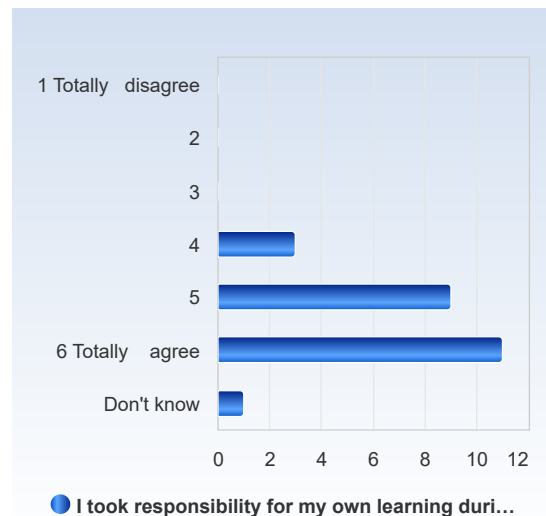
The examination was relevant in relation to the learning outcomes.	Number of responses
1 Totally disagree	3 (12.5%)
2	6 (25.0%)
3	5 (20.8%)
4	3 (12.5%)
5	3 (12.5%)
6 Totally agree	4 (16.7%)
Don't know	0 (0.0%)
Total	24 (100.0%)



	Mean	Standard Deviation	Coefficient of Variation	Min	Lower Quartile	Median	Upper Quartile	Max
The examination was relevant in relation to the learning outcomes.	3.4	1.7	50.0 %	1.0	2.0	3.0	5.0	6.0

**I took responsibility for my own learning during this course.**

I took responsibility for my own learning during this course.	Number of responses
1 Totally disagree	0 (0.0%)
2	0 (0.0%)
3	0 (0.0%)
4	3 (12.5%)
5	9 (37.5%)
6 Totally agree	11 (45.8%)
Don't know	1 (4.2%)
Total	24 (100.0%)



	Mean	Standard Deviation	Coefficient of Variation	Min	Lower Quartile	Median	Upper Quartile	Max
I took responsibility for my own learning during this course.	5.3	0.7	13.4 %	4.0	5.0	5.0	6.0	6.0

**When/if I had questions or problems with the course content, I felt that I could turn to my teacher/supervisor for guidance.**

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1 Totally disagree	3 (12.5%)
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3	2 (8.3%)
4	6 (25.0%)
5	3 (12.5%)
6 Totally agree	7 (29.2%)
Don't know	2 (8.3%)
Total	24 (100.0%)



	Mean	Standard Deviation	Coefficient of Variation	Min	Lower Quartile	Median	Upper Quartile	Max
When/if I had questions or problems with the course content, I felt that I could turn to my teacher/supervisor for guidance.	4.2	1.7	41.5 %	1.0	3.5	4.0	6.0	6.0

**The feedback that I have received has been important for my development and learning.**

The feedback that I have received has been important for my development and learning.	Number of responses
1 Totally disagree	3 (12.5%)
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4	1 (4.2%)
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6 Totally agree	6 (25.0%)
Don't know	1 (4.2%)
Total	24 (100.0%)



	Mean	Standard Deviation	Coefficient of Variation	Min	Lower Quartile	Median	Upper Quartile	Max
The feedback that I have received has been important for my development and learning.	3.8	1.9	48.4 %	1.0	2.0	4.0	5.5	6.0