EMNERAPPORT – INSTITUTT FOR BIOMEDISIN

ANNUAL EVALUATION REPORT – DEPARTMENT OF BIOMEDICINE

Emnekode: *COURSE CODE:*	**BMED320**	Semester / år: *SEMESTER /* *YEAR*:	**Høst / Autumn 2023**
Emnenavn: *COURSE NAME:*	*Methods in Biomedical Research*		
Emneansvarlig: *COURSE COORDINATOR:*	**Petri Kursula**	Godkjent: *APPROVED:* (admin.)	Utdanningsleder IBM 29.01.2024
Rapporteringsdato: *DATE OF REPORT:*	**Jan 29, 2024**		

INNLEDNING / *INTRODUCTION*:

Kort beskrivelse av emnet, inkl. studieprogramtilhørighet. Kommentarer om evt. oppfølging av tidligere evalueringer.

SHORT COURSE DESCRIPTION, INCLUDING WHICH STUDENTS/CANDIDATES MAY ATTEND. COMMENTS TO CHANGES BASED ON PRIOR EVALUATIONS.

Methods in Biomedical Research (25 ECTS) is an obligatory course for students attending the Master's Programme in Biomedical Sciences (MAMD-MEDBI). The course is aimed at giving the students a theoretical overview of methods and technology commonly used in basic biomedical research, including practical experience in selected methods.

The course begins with 4 weeks of lectures and continues with full-time experimental laboratory work under supervision for 8 weeks. The teaching language is English. The students are evaluated based on a home exam (55%) and an assignment to write a scientific manuscript based on the lab work (45%).

22 students were registered for the course, 20 of them Master's students in Biomedical Sciences, and 2 students attending other programmes; 1 student attending the Master's Programme in Pharmacy (MATF-FARM), and 1 student attending The Medical Student Research Programme (MEDFORSKL).

For course description, visit http://www.uib.no/en/course/BMED320

For previous reports, visit https://kvalitetsbasen.app.uib.no/popup.php?kode=BMED320

The previous report is from 2020, while the reports for 2021 and 2022 were unfortunately not finalized as planned/provided.

The evaluation report for 2020 listed following changes planned for 2021:

> To bring the students on a more even level before they enter the labs next semester, the following measures are planned:
>
> - An "entry test", which they have to pass and which will serve as a diagnostic tool to identify on which areas the students should read up during the lecture period before entering the labs.
>
> - A one-day lab tutorial, where Siri, likely with some assistants will go through some of the very basic laboratory methods, common to most research groups at the department.

I wonder if anything can be done to test the students' motivation during the selection of students. Can some interviews by implemented? I think that the students should only give their feedback in mid/end of January when they have gotten their exam feedback and had the chance to resubmit the home exam. This is a quite big part of the course and should be reflected in their feedback on the course. Now all the feedback is from before that. We should try to ensure that more students actually fill in the feedback form. Now it was a very low number.

<u>Comments to these planned changes or other changes made for the 2023 autumn semester:</u>

- Measures have been taken to include lab tutorials and chemical calculation exercises. These require funding, which was not available for the 2023 course.

- The problem with feedback persists. Feedback is collected before the major written exercise is submitted and evaluated, and therefore, is of limited value. Response rate remains very low.

STATISTIKK / *STATISTICS* (admin.)**:**

Antall vurderingsmeldte studenter: *NUMBER OF CANDIDATES REGISTERED FOR EXAMINATION:*	**20**	Antall studenter møtt til eksamen: *NUMBER OF CANDIDATES ATTENDED EXAMINATION:*	**19**

Karakter-skala *GRADING SCALE*	«A-F»	A:	B:	C:	D:	E:	F:
		1	13	4	1	0	0

KOMMENTARER TIL KARAKTERFORDELINGEN / *COMMENTS TO THE STATISTICS*:

Emnerapporten utarbeides når sensuren etter ordinær eksamen i emnet er klar. For muntlige eksamener er da resultatfordelingen endelig, men for skriftlige eksamener kan endelig resultatfordeling avvike noe om evt. klagebehandling ikke er fullført.

THIS REPORT IS PREPARED AFTER ORDINARY EXAMINATION. FOR ORAL EXAMS, THE RESULTS ARE FINAL, FOR WRITTEN EXAMS, THE FINAL GRADING DISTRIBUTION MAY DIFFER SLIGHTLY IF CANDIDATE COMPLAINTS/APPEALS HAVE NOT BEEN PROCESSED.

Most students got a B as a grade, which seems to reflect the level of the class. It was a bit surprising that only one student got an A from the home exam, where all materials could be used. One MCQ question in this exam had a typo in it, but this did not affect the grade of any student.

SAMMENDRAG AV STUDENTENE SINE TILBAKEMELDINGER / *SUMMARY OF EVALUATIONS GIVEN BY THE STUDENTS*

Spørreundersøkelse via Mitt UiB, annen evaluering, tilbakemelding fra tillitsvalgte og/eller andre.

COURSE EVALUATION ON MITT UIB, OTHER EVALUATIONS, RESPONSES FROM THE STUDENT REPRESENTATIVES AND/OR OTHERS.

SurveyXact was used as the digital evaluation system. Some of the questions were Multiple Choice Questions (MCQ), while others allowed the students to give their own opinion in writing.
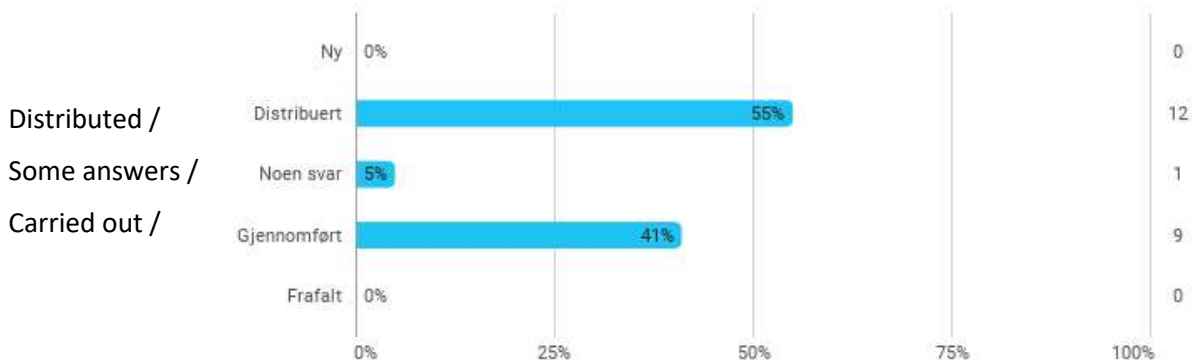
The survey was set up as anonymous and distributed to the students using their E-mail addresses at UiB. The Survey was distributed the 1 December to the 22 students registered for the course. Reminders were sent the 19 December and 2 January to those (18 and 16) students that hadn't responded before.

The attendees were asked about the academic content, the organization, and the educational level of the teaching, and asked to evaluate the total workload of the course. They were asked to give their responses

about the lectures, what they appreciate – or found disappointing – about the course. Finally came some questions regarding the exam and their learning outcomes.

When the survey closed 5 January 2024, responses from 10 (46 %) students were registered.

Overall status:

Distributed /
Some answers /
Carried out /

Ny	0%	0
Distribuert	55%	12
Noen svar	5%	1
Gjennomført	41%	9
Frafalt	0%	0

RESULTS:

The limited number of responses were quite varied, and it can be assumed that those that take the time to respond, are the ones that have criticism to show. Most comments relate to two aspects:

1) Lack of communication, for example related to cancelled lectures.

The course has >10 professors giving a lecture, and traditionally, they have been given free hands. It is important to learn from different kinds of teachers. Some lack of communication probably because I was a stand-in as course responsible, and I had many other responsibilities at the same time.

2) Division into pairs and research groups randomly for the lab course.

The course responsible feels this is the fairest possible way, and it exposes the students to new environments. A part of science is communication and work with different kinds of people that you cannot choose. This is a learning process, and one objective of the course is to expose students to "real life". Grading is based on the presentation of the work, not the results themselves, which evens out the effect of the project lottery.

EMNEANSVARLIG SIN EVALUERING OG VURDERING / *EVALUATION AND COMMENTS BY COURSE COORDINATOR:*

Faglæreres vurderinger av emnet. *TEACHER COMMENTS.*

Eksempel: Kommentarer om praktisk gjennomføring, undervisnings- og vurderingsformer, evt. endringer underveis, studieinformasjon på nett og Mitt UiB, litteraturtilgang, samt lokaler og utstyr.

EXAMPLE: COMMENTS ABOUT PRACTICAL IMPLEMENTATION, TEACHING AND ASSESSMENT METHODS, IF NECESSARY. FUTURE CHANGES/CHANGES IN PROGRESS, STUDY INFORMATION ON THE INTERNET AND MITT UIB, LITERATURE ACCESS, LOCALES AND EQUIPMENT.

The course was run essentially as before, apart from the fact that the home exam was a school exam instead of a written essay. This change was done due to the sabbatical leave of the course responsible, to reduce the large workload this part of the course has given to the responsible person.

There were some issues related students being randomly assigned to groups, but this has been deemed to be the only fair way, to prevent pre-arrangements with preferred partners and research groups.

All in all, the course ran rather smoothly, and most students seemed content with the outcome.

The plan is to include a 2-week programming (Python) module in BMED320, while cutting down the lab period to 7 weeks. This module will have an assignment, but it will not be part of grading. Details on this, as well as the long-term continuity of the arrangement, must be planned before the next edition of the course.

The issue about communication and lecture content can be evaluated, and perhaps some lecture topics could be updated.

It must be evaluated if the home exam is the same format as this year, or if the course will go back to the written essay. It could be discussed, whether students gather points from both the exam and the written article to get one final grade based on the full points at the end of semester, or if they are both graded separately, and the final grade is determined as before (55/45 exam/manuscript). The timing of the home exam can also be discussed (it was quite early in the semester).

Any changes to the course must go through the course responsible (Inari Kursula), when she returns from her sabbatical leave in March 2024.

FS – resultatfordeling (graf) / FS – DISTRIBUTION OF GRADING (GRAPH):

FS580.001 Distribution of results
Exam: BMED320 0 HO 2023 HØST
Methods in Biomedical Research - Semester thesis and take-home examinatio   25,0sp
Grading scale: Letter grades - Passed

	Total
Number of candidates (registered):	20
Number appearing at the examination:	19
Number of passes:	19
Number of failures:	0 0%
Number of withdrawals during examinatio	0
Mean grade:	B
Number presenting medical certificates:	0
Number of withdrawals before examinatio	0

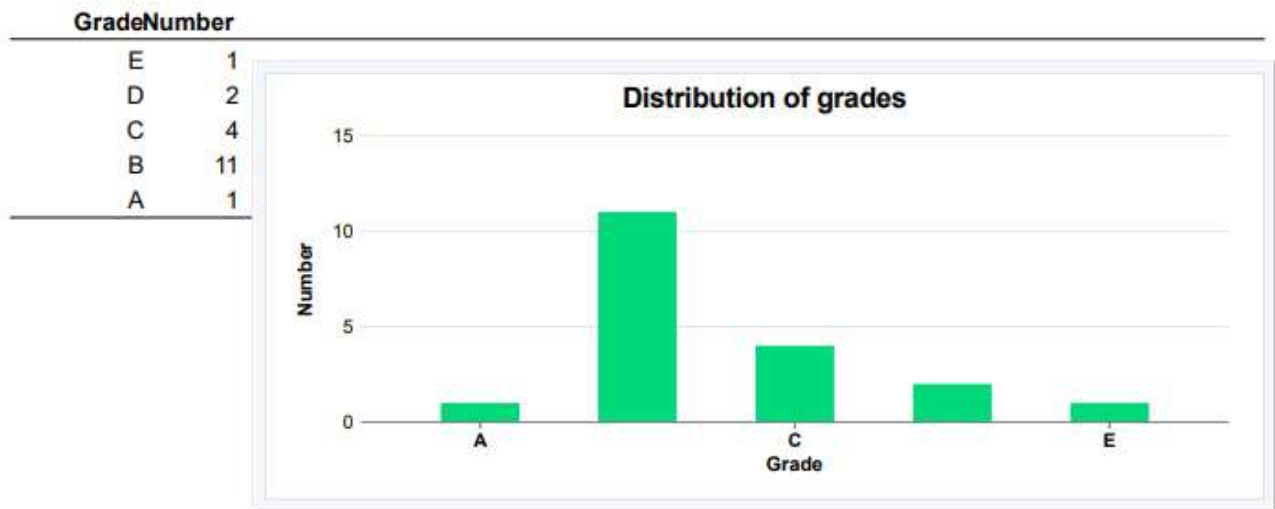| Grade	Number
E	0
D	1
C	4
B	13
A	1

Distribution of grades
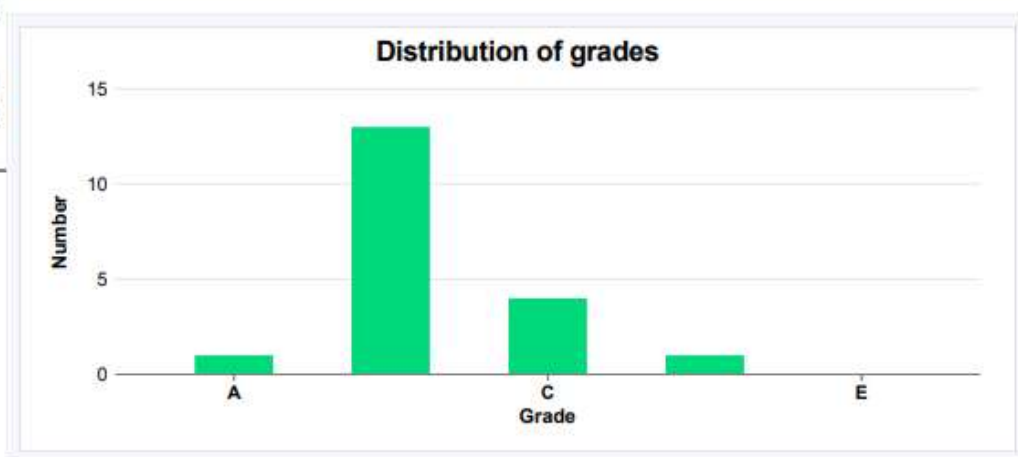
The assessment consists of two parts:

Home exam after completing theory lessons + Submission of term paper after placement in the lab.
The two parts account for respectively 55% and 45% percent of the total exam result.
The results for each part was as follows:

Home exam after completing theory lessons (average grade = C):

Grade	Number
E	1
D	2
C	4
B	11
A	1

Distribution of grades

Term paper after the lab (average grade = B):

Grade	Number
E	0
D	0
C	1
B	10
A	7

Distribution of grades