

Emneevaluering BIO100 høsten 2018

Høstsemesteret 2018 i BIO100 har 52 studenter svart på emneevalueringen og 51 fullførte evalueringen. Det var studenter fra 8 forskjellige studieprogram der 60% var Bachelor i Biologi. Denne rapporten er skrevet av Biologisk Fagutvalg ut fra resultatene fra emneevalueringen.

Ved spørsmål om emnet er relevant for mine studier:

76% oppfattet emnet som svært relevant og 22% som litt relevant
2% fall og 8 % økning fra 2017

Ved spørsmål om arbeidsmengden var av passe omfang

74% var enige og 20% var uenige
6% økning i enighet og 4% fall i uenighet fra 2017

Ved spørsmål om studenten var totalt sett fornøyd med emnet

88% er fornøyd med emnet,
6% økning fra 2017

Emnet utviklet mine ferdigheter i:

Resultatene fra denne delen av spørreundersøkelsen har mye til felles med den fra 2017.

Positive aspekter

- **Teori og Begrep:** Gjennom hele semesteret er studentene presentert med utfordringer, i form av del-eksamener, som er ment til å utvikle deres ferdigheter rundt teoretiske konsepter og begrep, fordi dette i seg selv er en stor byggestein til å forstå emnet. Derfor er det positivt, ifølge den nye evalueringen, å se at studentene mener emnet har hatt suksess med dette.
- **Kritisk Tenkning:** Evnen til kritisk tenkning er essensiell, ikke bare til dette emnet, men og på universitetsnivå. Deleksamen 3 og langsvarsoppgaver spesielt, på avsluttende eksamen, krever dette i stor grad. Det er tydelig, i sammenligning med 2017 evalueringen, at studentene er mer positive til deres egen utvikling innenfor kritisk tenkning.

Negative aspekter

- **Lab Ferdigheter:** Folk er mest misfornøyd med utvikling av lab ferdigheter, men det er irrelevant siden lab ferdigheter ikke inngår i emnet
- **Numerisk forståelse og statistisk analyse:** Utenom lab ferdigheter er studentene mest misfornøyd med ferdigheter innen numerisk forståelse og statistisk analyse. Disse evner inngår i stor grad i Deleksamen 2. Disse ferdighetene har mange svart på med “Ikke aktuelt”, som kan tyde på at noen studenter ikke forstod hvilke ferdigheter som inngår i numerisk forståelse og statistisk analyse.
- **Samarbeid:** Det har vært en liten nedgang i studentenes fornøyelse av samarbeidsevner siden 2017. I både 2017 og 2018 var studentene mindre fornøyd med utvikling av samarbeidsferdigheter i forhold til de fleste andre ferdighetene som ble undersøkt.

Her går vi gjennom tilbakemeldingene på hva som var bra/kritikkverdig med emnet fra fritekstfeltet i evalueringen. Her blir pensum, undervisningsmetode, forelesninger, innleveringer, eksamen og tilbakemeldinger tatt opp som temaer.

Pensum:

- Angående pensum gir studentene generelt positive tilbakemeldinger.
- Mange er fornøyd med hvordan pensum har likhetstrekk med og bygger på Biologi 1 og Biologi 2 fra videregående. I motsetning var det også noen få som mente at store deler av pensum var irrelevant fordi de allerede hadde lært det på videregående.
- Noen studenter likte å lese 'The Selfish Gene' og syntes det var interessant. Andre studenter mente at man kunne fjernet 'The Selfish Gene' fra pensum og at man heller kunne lært essensielle evolusjonskonsepter på andre måter som ikke krever like mye lesing.

Undervisningsmetode og forelesninger:

- Studentene er generelt overveldende positive i tilbakemeldingene om forelesning. Studentene peker på godt planlagte forelesninger, at foreleser involverer studentene i forelesning og at studentene blir oppfordret til å diskutere seg imellom. I motsetning er det noen studenter som mener at foreleser snakket litt for fort til tider
- Noen studenter likte gjesteforelesninger av forskere og tur til Havforskningsinstituttet.

Eksamen

- Det var meget splittede meninger angående deleksamenene. Det var positive aspekter å trekke fra tilbakemeldingene, som blant annet:
 - Studentene var generelt fornøyd med læringsutbytte/fordypning de fikk fra emnet, og at de fikk muligheten til å vise sin forståelse/kunnskap gjennom semesteret.
 - Noen av studentene var positive ift å være forhånds bevisst til hva som kom på del eksamen 4, og at det var multiple deksamener med hvert sitt fokus. Dette gjorde det lettere og mer interessant å holde følge med pensum.

- Det var også negative aspekter:
 - Noen av studentene mente at det var for mange eksamener, ift hvor mye arbeid de hadde i andre fag, og noen mente det var for høye krav/streng retting. Andre nevnte at de første deleksamene var for tidlig på semesteret, mtp kunnskapsmangel.
 - Det ble nevnt at deleksamen 2 og 3 var “for åpne” og usikkerhet var et tema, mtp hva som kreves for å få maks uttelling.
 - Studenter syntes deleksamenene hadde for stort press på “språk/skriving”, ift hvor lite fokus det er på dette i emnet. De mener foreleser enten burde nevne dette på forhånd, eller ha større fokus på det i forelesningene.
 - Noen mente at det var for mye overlapp mellom deleksamen 1 og 4 og foreslo å enten redusere poeng fra deleksamen 1 og øke poeng på deleksamen 4, eller å fjerne overlappen i pensum mellom de to deksamener.
 - Noen mislikte at Deleksamen 2 krevde Excel-kunnskaper og de mente også at selve oppgaven var utydelig, spesielt fordi mange var ukjent med en slik type oppgave. Mange ønsket også et skriftlig alternativ til Deleksamen 3. Dette kunne økt antall studenter som stilte, og gjort vurderingsarbeidet mer effektivt, mtp tidsbruk og at studentene ikke selv følte de behøvde å skynde seg gjennom presentasjonen.
 - Noen studenter mente at det ble lagt ut for mange oppgaver i forberedelse til del eksamen 4, og at, selv om det potensielt var ment som en hjelpende hånd, egentlig økte usikkerheten om hva som krevdes til del 4.

Tilbakemeldinger

- Studentene hadde stridende meninger angående tilbakemeldinger. Noen uttrykte at de var fornøyd med at foreleser tok seg tid til å gi tilbakemeldinger til alle studentene. I motsetning var det noen som mente at de fikk lite ut av tilbakemeldingene og at tilbakemeldingene ikke alltid var konkret angående hva som ikke var tilstrekkelig.

BFU sine forslag til endringer

- Større innførelse/ kursing/ hjelp angående vitenskapelig skriving og oppsett på Deleksamen 2 og 3. Mange studenter uttrykte fortvilelse innen dette vurderingsfeltet. De slet med å forstå hvor stor vektlegging det var på skriving før eksamenene i tillegg til at de slet med å forbedre skriveegenskapene.
 - BFU anbefaler samarbeid med bioCEED/ biORAKEL. I forberedelsesforelesning til Deleksamen 2 og 3 kan en representant fra bioCEED komme innom og anbefale studentene til å få hjelp på biORAKEL. Her kan studentene bli rådet innen både vitenskapelig skriving i tillegg til oppsett på Deleksamen 2 og f.eks. kildesøk og kildebruk på Deleksamen 3.
- Eventuell endring i opptak av eksamenen. Forslag er at man kan velge hvilke deleksamen en ønsker å få tatt opp. Studenter er usikre ang dette. (Finn ut av mer på møte)

Evaluerings av kollokvieresultatene og -tilbakemeldingene

- Vi ser at kollokviedeltakelse har økt siden 2017. 22% flere svarte “Ja” på “*Har du vært medlem av en kollokviegruppe som har møttes flere ganger?*” i 2018 enn i 2017. I 2018 svarte 31% at de møttes én eller flere ganger i uken i motsetning til 21% i 2017. Økning i kollokviedeltakelse kan antas å være pga. endringer i foreleserens oppfordring til og støtte om kollektiv dannelse.
- Til tross for høyere kollokviedeltakelse er ikke studentene noe særlig mer fornøyd med læreutbyttet i kollokviene. Angående spørsmål om læreutbytte i 2017 var gjennomsnittet 3.34, imens i 2018 var gjennomsnittet litt lavere med 3.03 (på en skala fra 1 til 5 hvor 1 er “bortkastet”, 3 er “midt i mellom” og 5 er “svært lærerikt”). Studentene virker middels tilfredse med kollokvieordningen, men vi fikk likevel mange tilbakemeldinger om hva som var mislikt med kollokviene.
- Flere av studentene mente at kollokviegruppene var vanskelige å opprettholde, ettersom gruppene bestod av studenter fra flere ulike studieprogram. Dette skapte problemer med faste møtetider i kollokviene. Studentene mente og at kollokviene burde vært bedre organisert/tilrettelagt fra fakultetet.

Ut fra disse problemene vil komiteen fra BFU legge frem følgende forslag til forbedring:

- Sette opp kollokviegrupper med folk fra samme studieprogram, helst fra samme klasse og årskull. Dette vil føre til at studentene har lik timeplan og dermed vil ha færre problemer med å finne et fast tidspunkt å holde kollokviene.
- Bruke eldre studenter i startfasen av kollokviene. Dette vil hjelpe med å sette i gang diskusjoner i en ny gruppe, og vil videre gjøre studentene mer komfortable med å snakke med hverandre, slik at kollokvien vil fortsette videre på egenhånd.
- Innføre kollokviegrupper som krever påmelding. Påmelding kan utføres på “Grupper” på mittUiB. Dette vil øke engasjement blant studentene til å møte opp med de studentene de kommer overens med, som dermed kan øke produktivitet innad gruppen ift arbeidsmengde, men også en økt forståelse av pensum.

BIO 208 Environmental Impact of Aquaculture - spring semester 2018, with notes on spring 2017 and summary of changes since 2014

Course leader: Audrey Geffen, Co-Teacher: Dorothy Jane Dankel, Teaching assistant: Shad Mahlum

Course description

The content and objectives of the course are described as:

"Aquaculture supplies half of the total aquatic products for human consumption at the global scale. However, the production of aquaculture products has direct and indirect impacts on the environment, and the potential for negative impacts on human health. This course introduces the major sources of aquaculture impacts and their effects on the environment. The course will cover a wide spectrum of environmental issues resulting from expanding global aquaculture. These will include the competition for natural resources and the impact of direct organic pollution. Current issues are reviewed, and the risks and benefits of different systems are evaluated. The course will deal in depth with the impact of intensive aquaculture on wild fish populations, including the transfer of disease and parasites (sea lice), the impact of escaped fish, and the threats and benefits of GM fish. Additional topics include habitat destruction, sourcing of feeds, antibiotic use, introduced species, and consumer knowledge.

The course content is based on lectures, selected reading material, and presentations by active researchers in the field. Learning activities include student-led discussions and short investigations. The evaluation of scientific literature and popular media is emphasized to encourage the development of critical thinking and the ability to articulate evidence-based opinions."

The learning outcomes are:

The course aims to give the students an understanding of the impact of aquaculture on a global scale.

- On completion, students will be able to identify and discuss the major biological impacts, including effects on surrounding biota and potential human health impacts
- will be able to identify and discuss the major physical impacts, including spatial conflicts linked to aquaculture sites
- will be able to identify and discuss the major sources and effects of chemical and nutrient inputs to the environment
- will be familiar with selected monitoring and management tools and updated trends in technological solutions
- will demonstrate critical thinking applied to sources of information about aquaculture impacts by finding relevant sources of information on aquaculture impacts representing different viewpoints
- Will be able to evaluate quality of information from scientific and general sources
- Will be able to develop an independent opinion on relevant issue, based on scientific information
- Will be able to express own opinion in a clear and concise manner, with correct notation of source material

Evaluation and grading:

As stated in the published course description, students are required to attend all group discussion sessions:

"Obligatorisk undervisningsaktivitet - Deltakelse i studentens diskusjoner og aktiviteter er obligatorisk"

(<https://www.uib.no/emne/BIO208>)

"Compulsory Assignments and Attendance - Participation in student discussions and activities is compulsory"

(<https://www.uib.no/en/course/BIO208>)

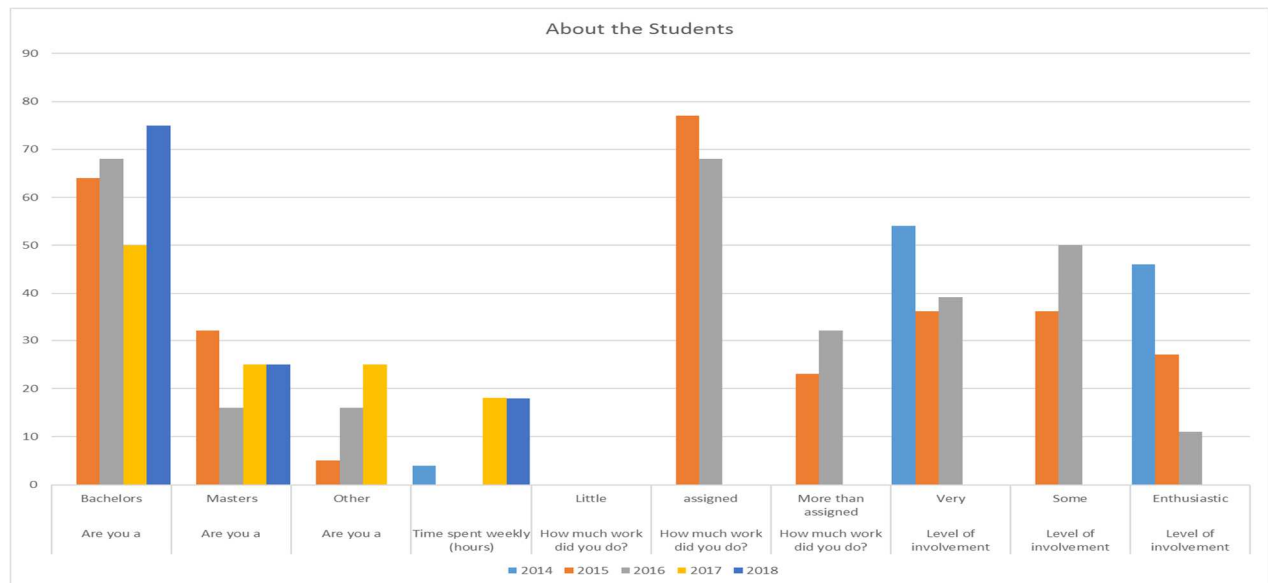
As stated in the published course description, students grades are based on:

"Vurderingsformer - Mappevaluering av skriftlige oppgaver (40%) og deltakelse i kursøvelser (30%) og hjemmeeksamen skriftlig eksamen (30%). " (<https://www.uib.no/emne/BIO208>)

"Forms of Assessment - Evaluation of written assignments (40%) and participation in class exercises (30%) and take-home written examination (30%)." (<https://www.uib.no/en/course/BIO208>)

Spring 2018 experience

This is a popular course for exchange students, with a final total of 33 students taking the examination. One student was sick during the exam and will retake it in autumn 2018. Compared to previous years, there was a higher proportion of undergraduate students, particularly those finishing the Bachelors in Sustainable Aquaculture. Master's level students included those following the aquaculture as well as the marine biology study programme. The majority of students were Norwegian (a result of the large number from the aquaculture programme), but students also came from Hong Kong, France, Germany, and Italy.



The mix of students that has been present in the class in 2015-2017 lent a considerable diversity to the discussion and also to the reading material that could be drawn on in the course. Having a majority of undergraduate students from a single study programme in 2018 was unexpected and if that trend continues then extra time may need to be allocated to cover the necessary skills in literature searching and referencing.

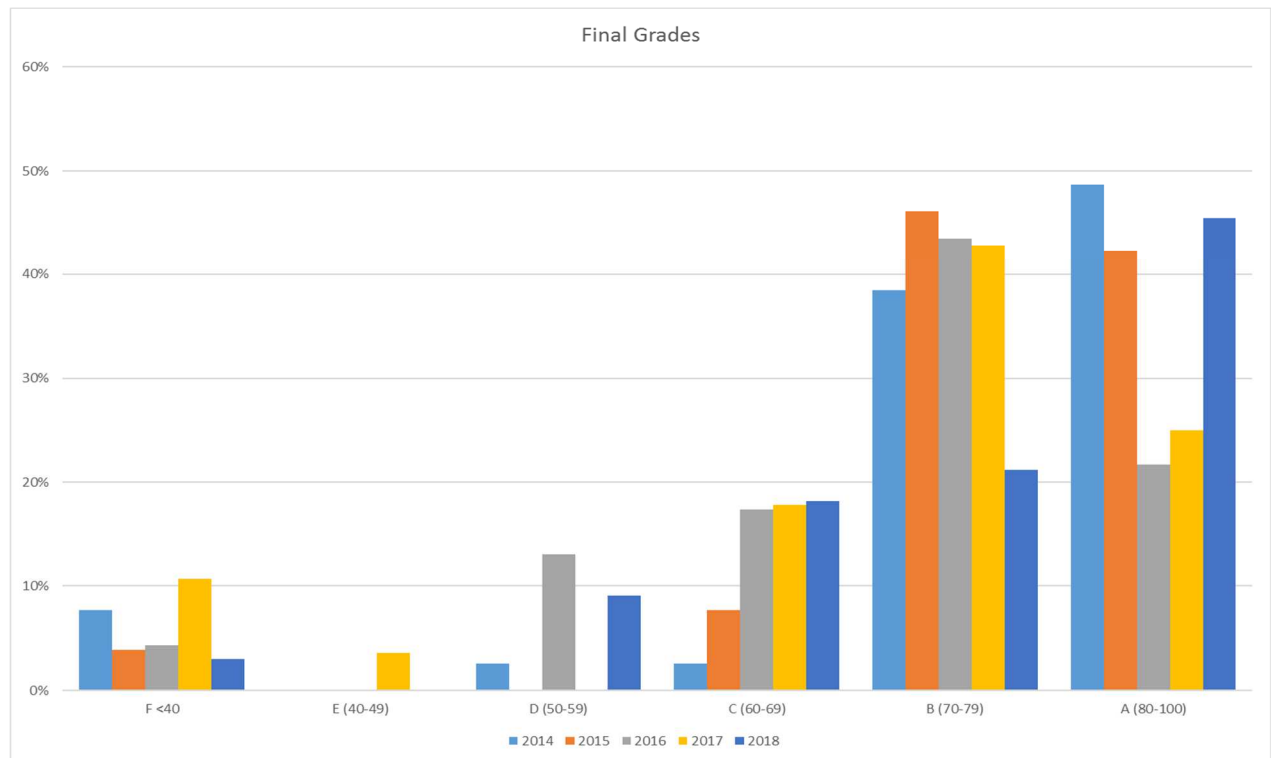
The course structure was not altered very much since the original revision in 2014; the original plan has been to devote one class meeting to lectures and one class meeting to student-led discussion in each week. Students were divided into eight groups (4-5 students each), each group responsible for leading two discussions during the semester. In addition to sourcing the reading material, they also summarized it for the class, led the discussion with prepared questions, and wrote individual essays on a selected issue within the topic. There were two parallel discussion sessions, each with three of the student groups – ca. 15 students in each. The groups stayed constant throughout the semester, but the teaching staff rotated so as to observe and evaluate participation and contributions. This format has performed well in previous years. In 2018, however, students seemed unaware that attendance and participation were obligatory (see course description above). They also seemed unaware that attendance and participation were part of the grade evaluation (see course description above). This is clear from the comments on the student survey course evaluation given at the end of this report. Although these course requirements were presented on the first day of the course, and were always available to the students in the Course Introduction notes, the student comments make it clear that this needs to be repeated at regular intervals during the semester.

There were four guest lectures, and one of these also included a discussion session. The penum was composed of scientific articles and essays, as well as the material sourced by students for their discussion sessions. A significant difference in 2018 has been the implementation of a new scheduling system which is intended to maximize the use of teaching rooms, and minimize the course clashes for students. Certain course combinations are highlighted, and a meeting schedule is automatically generated to avoid collisions. The outcome for BIO208 in 2018 was a patchy meeting schedule, where six of our usual course meetings were blocked off for other courses. As a result, the discussion session timing was not as optimal as it had been in other years, and we were not able to align the lecture topics and discussion topics within the same week, as in previous years.

The student grades were based on evaluation of written assignments (40%) and participation in class exercises (30%) and take-home written examination (30%). The weighting was changed in 2017 and 2018 to address concerns raised by students in previous years that there was not enough weight put on the written essays, and group work in general, compared to the weight for the final grade. In 2017 and in this year, 2018, the written assignments (40%) consisted of the individual essays and group reports, the class exercises (30%) consisted of group discussion participation (as participants and as leaders), and the take home exam (30%) is self-explanatory. In 2018, the length of the final exam was reduced by approximately 1/3, in response to student comments over

previous years about the length in relation to the value (weighting) of the exam. Nevertheless, it remained a large focus for negative student comments in 2018. Despite these concerns, it remains a major feature that the final take home exam serves to improve the grade for most students.

Final grades were distributed mostly in the A's and B's and reflect the attention and workhours put in by most of the students. The distribution has been similar over the past 5 years. Students estimated that they spent 18 hours per week on coursework, similar to the figure given in 2017.



Addressing issues from 2016-2017

Several comments in the student surveys from 2016 were addressed and improvements were noted:

- 1) The room assigned for the course was changed for 2017 and 2018 to a flexible conference room with a removable dividing wall. This was very successful from the teachers point of view, but may have contributed to student's comments about lack of organization since we often had to re-arrange tables and chairs at the start of class
- 2) The participation of teaching assistants who had experience of the course over two years (started in 2017) made an enormous difference to the learning experience. This made it possible to return feedback on the written work more quickly.
- 3) More opportunity was given to practice writing during the whole semester and more feedback on the writing was provided
- 4) The evaluation criteria was made more explicit; with clear instructions for how the written work was marked, what weight was given to the different evaluation modes. In 2016 we changed to using the Canvas platform, and that allowed in 2017 and 2018 for repetition of the instructions for each assignment, as well as a visible grading rubric for evaluating the students' work.

The marking information given for the written work (essays of 1000-1500 words) was again announced:

How BIO 208 Essays are graded:

Total possible 100 points:

20 points- Introduction – clear statement of the topic, how it relates to the course (or you) and which aspects you want to focus on. Clear statement of the intended approach to explore the topic and what will be emphasized. What do you expect to find?

50 points- Main text –paragraphs with clearly described relevant topics, well referenced. The facts must be correct and cited. Develop your opinion and back it up with facts

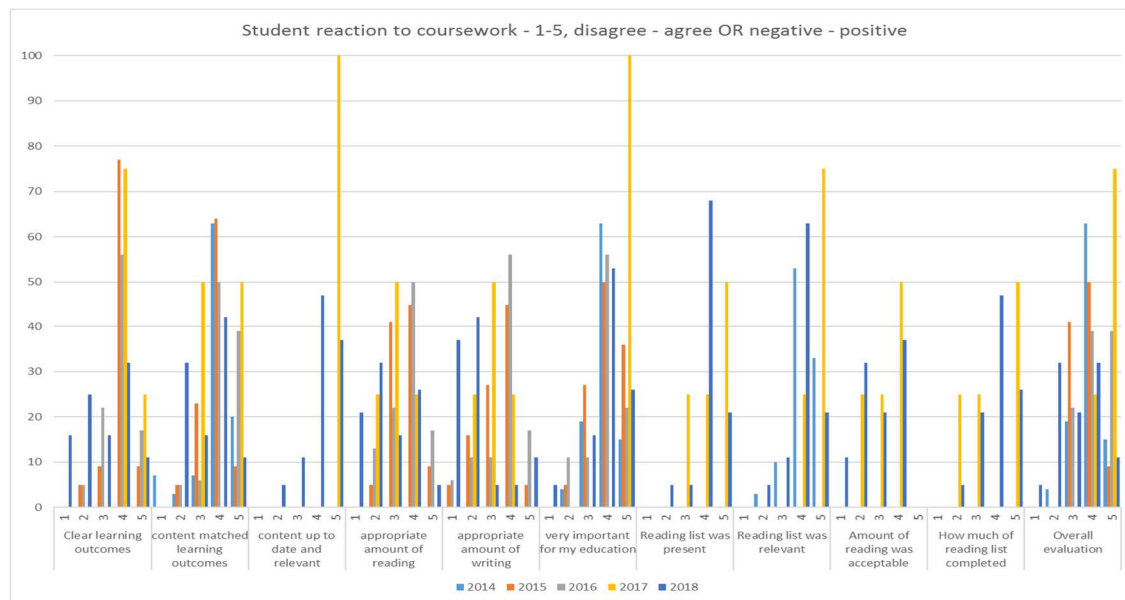
20 points Conclusions – clear statement of what the previous text has brought to light *including what has not been investigated* (either by you or by the literature). State whether your initial impression of the topic (from Introduction) has been supported or undermined by the research. State what you think seems to be the next step in looking at this topic.

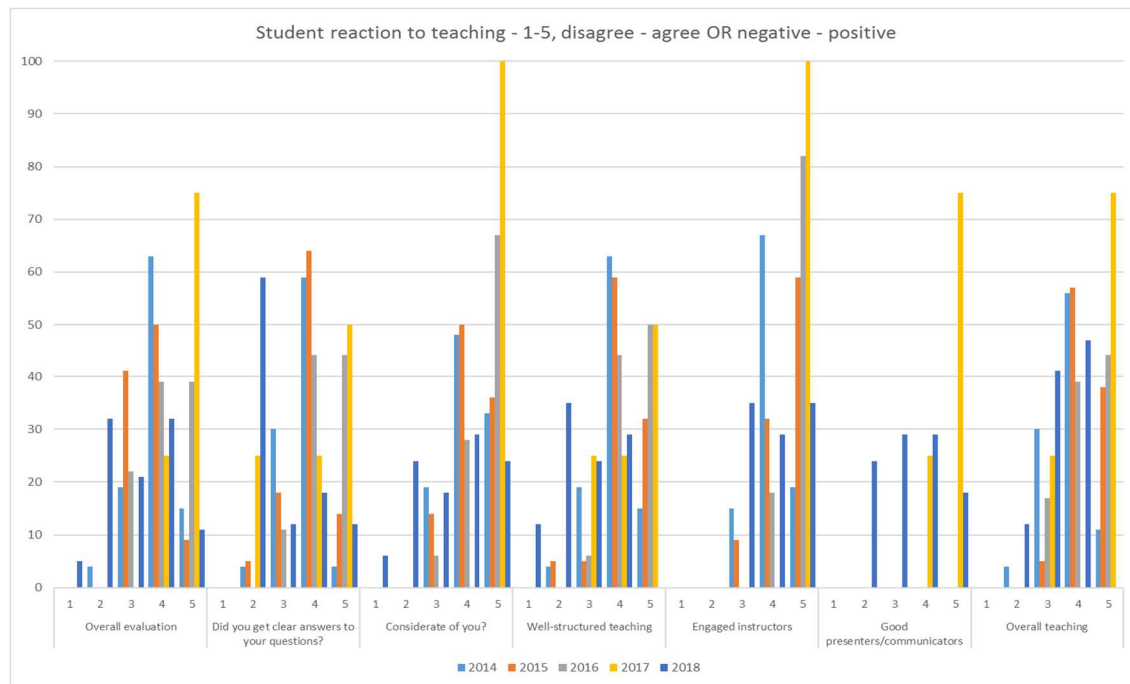
10 points References – all properly cited and in the same consistent format (eg Harvard style or similar). All references are mentioned in the text and all text references are found in the list. Remember to give the accessed date for internet resources. *Papers cited in a review article use the review article as the reference.*

To reinforce this, the first discussion session was led by the teaching staff, presenting three selected essays (sourced from the internet and from Nature) on aquaculture as a demonstration of what to do and what not to do.

Student Evaluations and course changes since 2014

Overall the course is evolving in a positive way and the level of accomplishment and satisfaction on the part of the students is encouraging. The guest lecturers have reported that they have enjoyed participating and look forward to doing so again next year. We will continue to modify the content to incorporate new advances in the field, and changes in the other courses offered at BIO. It was a big improvement to share the teaching this year, and it would be a good idea to increase the teaching team further, as well as inviting the guest lecturers into the planning group.

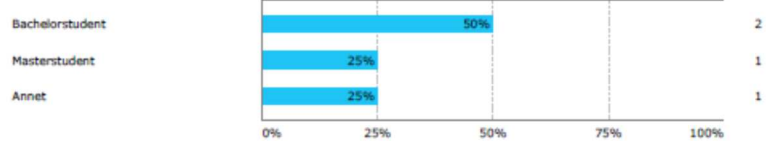




The most critical comments made by the students in their evaluation in past years were directed at the discussion sessions. Many students do not like to take responsibility for their own learning and thus ask for more lectures. Fortunately, many more students were enthusiastic about the freedom to follow their interests and explore the topics. Most students commented that they felt a real sense of accomplishment, and appreciated how much they had learned. In 2017 and 2018 the group work evaluation was based more on individual contributions. The hope was that this would counteract the cases where not all group members were participating fully. The combination of oral and written work is still considered the best way to compensate for group dynamics and for personalities (shy vs extrovert). The suggestion that group members should evaluate each other, has not been implemented yet.

Student survey results (2017)

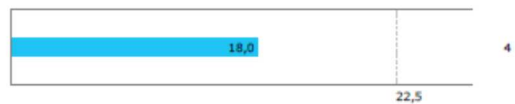
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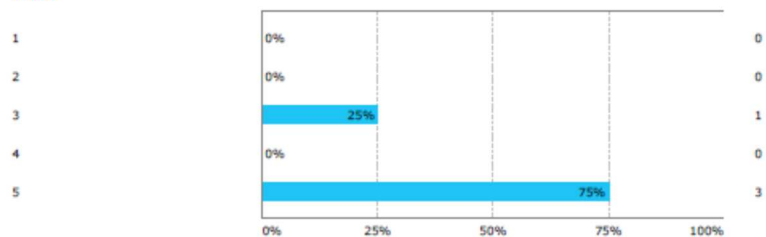
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- Guest student

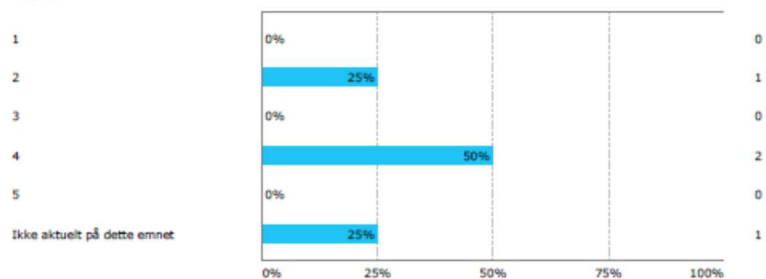
Hvor mye gjennomsnittlig arbeidstid per uke har du brukt totalt på dette emnet (inkludert forelesninger, gruppeøvelse...

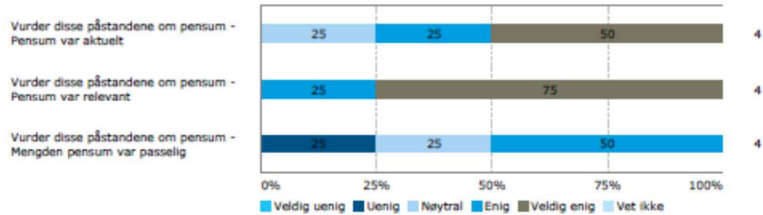
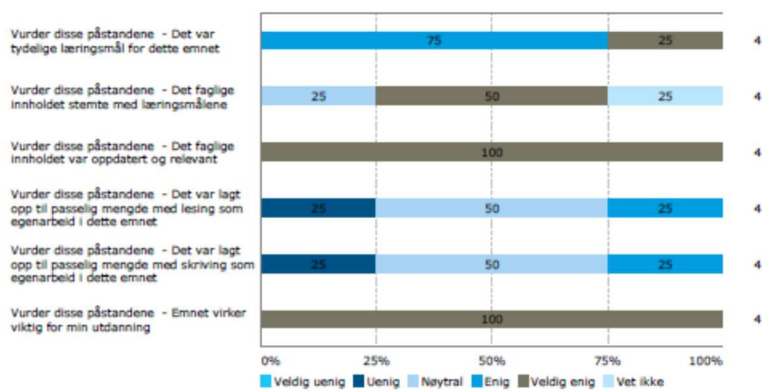


Hvor mye teoretisk kunnskap har du tilegnet deg på dette emnet? (1 = ingen, 5 = mye)

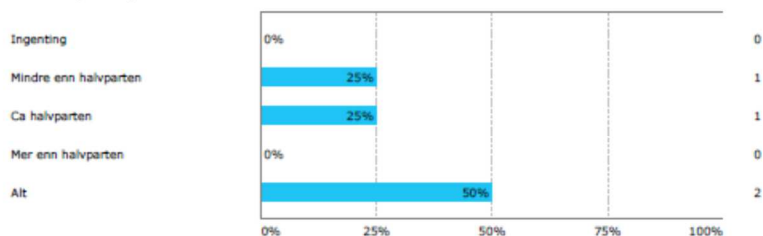


Hvor mye praktisk kunnskap har du tilegnet deg på dette emnet? (1 = ingen, 5 = mye)

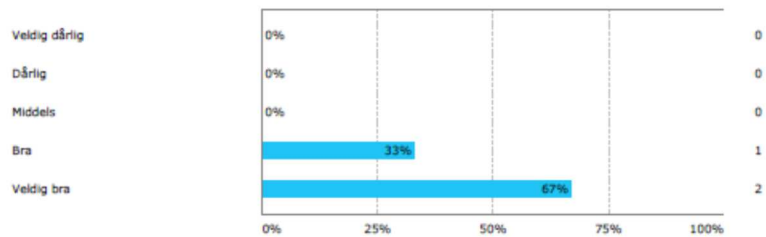




Hvor mye av pensum leste du?



Hvordan vil du evaluere emnet som helhet?



Hva likte du mest med dette emnet?

- Diskusjonene
- The discussions
- The exam was like assignments. I learnt more than a traditional exam and I kept more knowledge.
- Fokus på overførbar kunnskap i form av skriveøving, bruk av vitenskapelig litteratur osv...

Hva likte du minst med dette emnet?

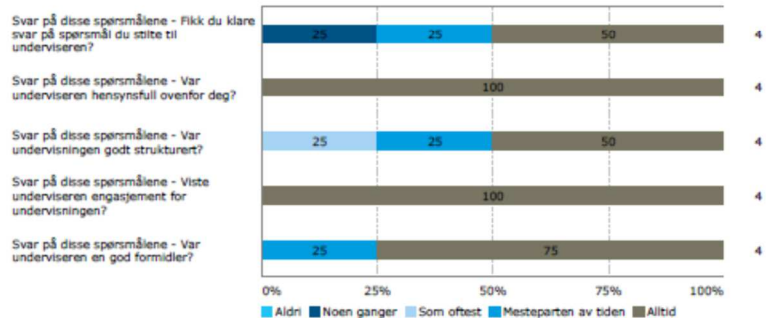
- Mengden stoff som måtte lese
- The home exam
- The amount of essays.
- Skjevfordeling av arbeidsinnsats innad i gruppa

Har du forslag til hvordan emnet kan forbedres?

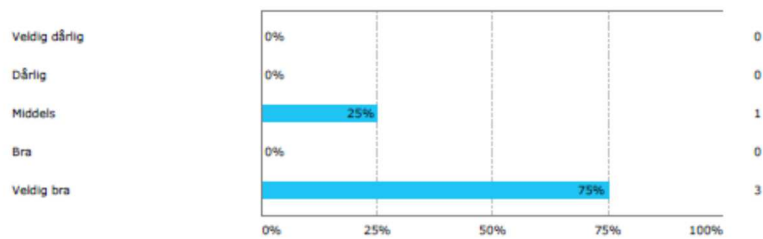
- Not a really extensive home exam on the sunniest weekend of the semester. No, but really I thought the exam was a little too much work considering it was only 30 percent of the grade.
- Do not give demand essays without to be on calendar
- Dette er ikke deres ansvar alene, men jeg synes at det generelt bør bli strengere krav til forkunnskaper i engelsk for utvekslingsstudenter på UIB. Dette er et gjennomgående problem i emner som involverer mye gruppearbeid.

Tilbakemeldinger på organisert praktisk undervisning?

- Fun and I learnt a lot. Maybe the instructors could have helped to keep the discussions "alive" a little more often
- Was hard to meet all members of the group in group meetings.
- Likte veldig godt at det ble brukt så mange ulike undervisningsformer.



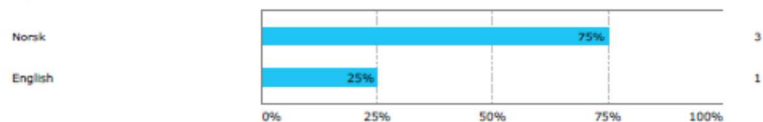
Hvordan vil du totalt sett evaluere underviseren(e)?



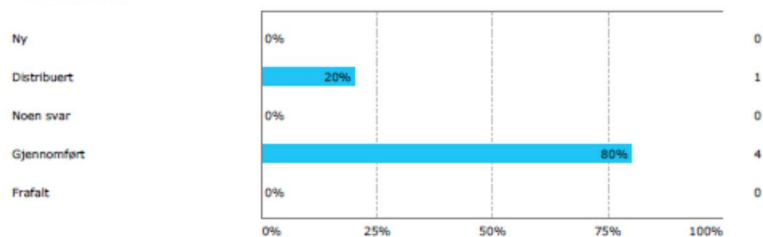
Har du forslag til hvordan underviseren kan forbedre sin undervisning?

- Sometimes There were some mixed messages being given, and also some of the important messages were Sometimes late
- Any recommendation. I really enjoyed the lessons
- Tipp topp. Likte spesielt godt bruken av gjesteforelesere med spisskompetanse på ulike fagfelt.

Språk



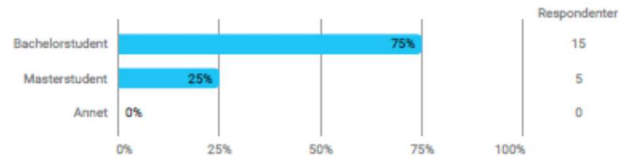
Samlet status



Student evaluation of BIO208 in 2017 was done in cooperation with BioCEED and looked specifically at participation in oral discussions. The final exam was given in May, and the evaluation survey sent to the students in late June – it is likely that the very low response rate is because of the long interval before contacting the students for feedback

Student evaluation of BIO208 – 2018 (20 answers of 34 students)

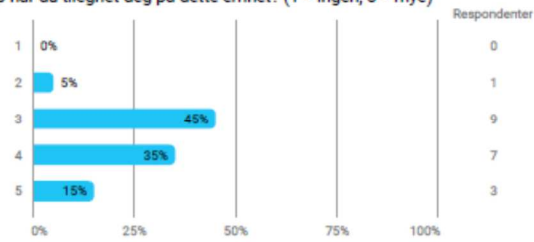
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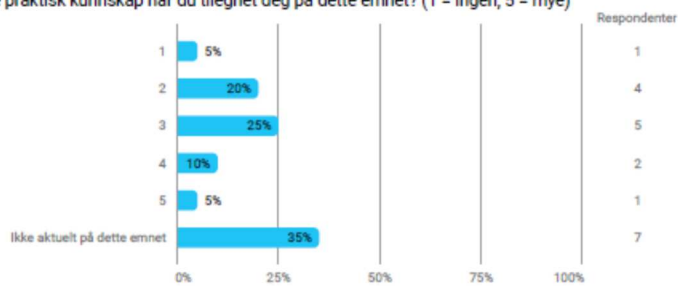
Er du? - Annet

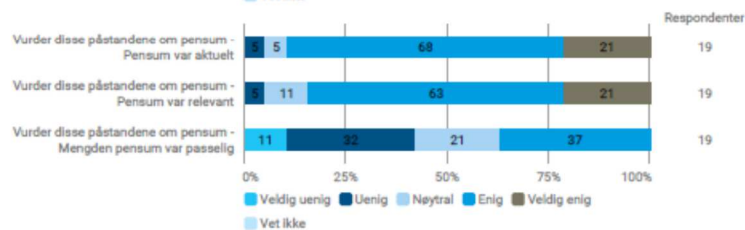
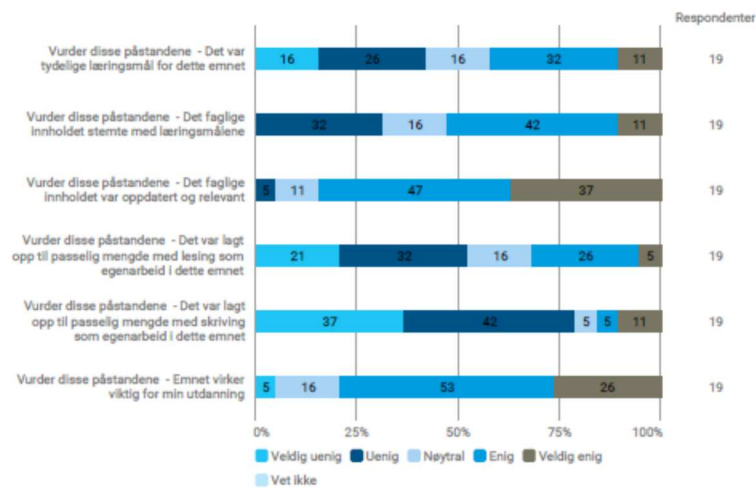


Hvor mye teoretisk kunnskap har du tilegnet deg på dette emnet? (1 = ingen, 5 = mye)

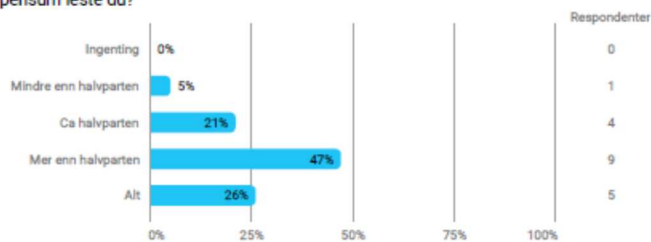


Hvor mye praktisk kunnskap har du tilegnet deg på dette emnet? (1 = ingen, 5 = mye)

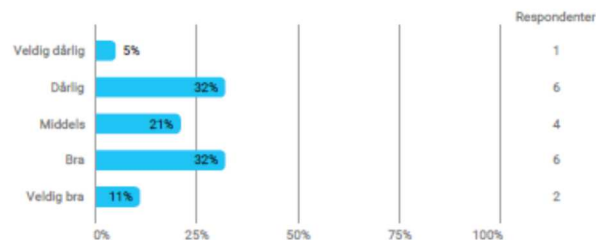




Hvor mye av pensum leste du?



Hvordan vil du evaluere emnet som helhet?



Hva likte du mest med dette emnet?

- At det var lagt opp på en annen måte enn andre fag. Mye samarbeid med andre medelever, ikke på den tradisjonelle måten at vi kun møter i forelesning hvor foreleser står og snakker. Mer aktivt læringsmiljø.
- Mye samarbeid, bedre på å skrive
Mer komfortabel til å snakke opent, diskutere og bruke engelsk
Kunnskap om oppdrett andre plasser enn Norge
- Temaene og pensum var veldig relevant for mitt studie
- Ble mer komfortabel med å uttrykke meg muntlig
- Gode diskusjoner ga masse erfaring muntlig på engelsk. God øving for skriving på engelsk. Mye aktuelle saker fra oppdrettsnæringen
- Interventions of different speakers
- Broadening our aquaculture knowledge horizon.
Forcing us to do our own research and present our findings.
Discussions and oral presentations in general is always a good thing in my opinion.

Kevin Glover and Dorothy Dankel were excellent additions, I loved their input.

Shad gave incredibly useful and in-depth feedback on the essays.

- The diversity of the themes that were covered
- Discussion groups
- The scope and focus on scientific articles.
- Besøket til Donald Glover minus at vi skulle presentere hans arbeid til han. Vi hadde lært sååå mye mer om han hadde forelest for oss
- Forelesninger og diskusjonstimerne, samt at vi fikk god øving i å skrive essays, delta i debatt og i å lese artikler
- Fremføringer
- I think the lecturers and course coordinators were very knowledgeable and engaged with the topic. for me a lot of new facts were presented and we looked at problems I had been mostly unaware of until then
- Godt for skriveteknikk

Greie diskusjoner

- The throughout focus on writing and reading scientific articles while being critical of its content.

Hva likte du minst med dette emnet?

- Informasjon kunne blitt gitt mer tydelig. Oppgaver kunne komme noe brått på. Eksamen var også veldig stor.
- Uklar informasjon om hva som skal bli gjort i de ulike innleveringene.
For stor eksamen i forhold til tiden.
- Emnet har tatt for mye tid og gått ut over andre emner jeg har hatt dette semesteret. Synes lite om at diskusjonene blir karaktersatt, da de ikke er obligatorisk, og det ikke har vært mulig å møte på alle grunnet andre emner som har hatt mye obligatorisk oppmøte. Eksamen ble lagt ut før eksamenstiden, og dette ble begrunnet med at det var eksempeloppgaver, men etter litt tid var disse lukket for åpning. Mistenker derfor at disse oppgavene ble lagt ved en feil, og at studentene ikke skulle ha tilgang til å åpne de. Dette blir urettferdig for de studentene som hadde den første eksamen, med tanke på tid. Oppgavene var riktig nok byttet noe om på, men studentene med sen eksamen fikk bedre tid til å lete opp relevante artikler knyttet til de emnene som er sannsynlig å dukke opp på eksamen.
- Uorganisert
- Lite struktur og til tider rotete opplegg. Også veldig krevende avsluttende eksamen med tanke på mengde ord og tid.

- Kafka-esque chaos. I was so frustrated by the lack of organization, conflicting information, arbitrary scores, etc., I was convinced it was done on purpose to "test our character", or similar, by the end. Please stop giving three conflicting statements and surprising and overwhelming people with additional work last minute.

I was looking forward to taking this class, but the frustration of dealing with the unorganized nature of it kind of ruined for me. Lack of structure is counterproductive as people lose focus and the ability to care about it.

- The readings were sometimes so long that it was not enough time to read it. Especially the discussion about interaction between wild and farmed salmon was overwhelming. When the work load is too big, it takes focus away from the scientific content, and there is not enough time to learn and understand.
- Heavy exam, the missing presentations from the external lecturers, change of schedule
- mye av pensum er ikke spesielt relevant for bacheloren, det var vanskelig å forstå hva man skulle gjøre og når. Mange beskjeder som kom fra forskjellige hold. Dårlig kommunikasjon
- Antall poeng vi kan få på deltakelse i diskusjonene og tilbakemeldingene på innleveringene.
- Alle de ulike kravene
- the coursework was too much, especially the exam was extreme. I don't feel that writing three big essays in three days is very educational. Nor is it a good representation of my writing skills or knowledge of the course. every person in academia always highlights the importance of not doing assignments in the last minute, because they will be bad, but that is what we were basically asked to do. also i think that the continuous assessment and writing tasks during the course took too much time, considering that the course was only 10 credits.
- Jeg har aldri hatt et emne på UiB som har vært dårligere organisert eller gitt mindre informasjon om hva som foregår. Det jeg likte aller minst var at det ikke var mulig å få svar underveis i faget hvordan ting ville bli lagt vekt på. Vi fikk bare se at ting ga enn viss mengde poeng, men aldri informasjon om hvor stor prosentandel dette var av det totale faget, premissene må være sett på forhånd, så studentene vet hva de forholder seg til. Man kan ikke komme i ettertid (som det også ble gjort) og endre på det.

veldig uklart om hva som var obligatorisk og ikke.

I tillegg ble alt for mye av undervisningen gjort av studentene selv i form av seminarer og foredrag, noe som ga et veldig lite faglig utbytte. Når det kommer flinke forskere fra blant annet HI, vil jeg mye heller høre på hva de har å si, enn å høre på andre studenter ha en presentasjon. Når det gjelder seminarene, var det for eksempel ingen faglig input fra noen andre, som gjorde at det ble mye synsing og svada generelt.

Det er den mest tulleste eksamenen jeg noen gang har hatt, her måler dere ikke noe annet enn studentenes evne til å jobbe under ekstremt stress og det har ingenting med faglig kompetanse eller evne til å reflektere eller skrive å gjøre.

- The overall structure of the course was disheartening and took away from the learning process. Personally I fell like sometimes things like word count and amount of pages written takes away from the focus, being the actual content. Maybe have focus on making a good essay/article, and then note the importance of laying down proper groundwork in the form of citations and references for the sake of argument, not for the sake of reaching a wordcount.

Har du forslag til hvordan emnet kan forbedres?

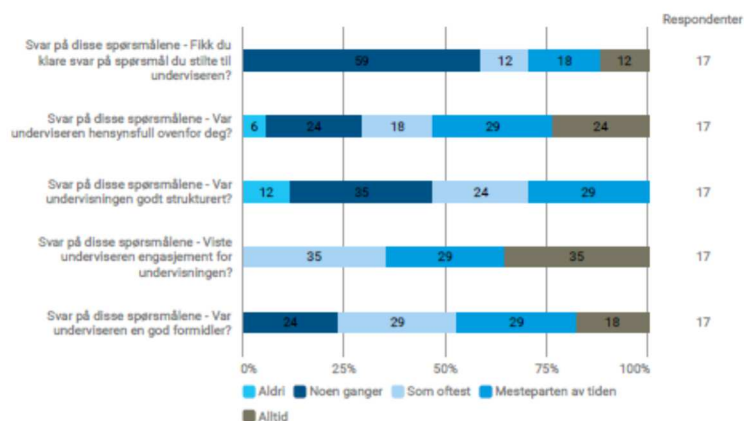
- besøk av Glover
- Litt mer aktiv informasjon. Ikke så stor eksamen.
- Ikke sette karakterer på diskusjoner som ikke er obligatorisk. Karakter på diskusjoner som studenten selv skal lede.
- Lage plan ved starten av semesteret som viser alt som skal gjøres, inkludert små oppgaver.
- Mer oversiktelige og mer struktur. Bedre kommunikasjon mellom studenter og forelesere.
- - Focus on the three most important assignments: supermarket surprise, discussion essays and home exam. Ditch the rest.

- Reduce the amount of work on the home exam. Three scientific essays in three days might be doable for you, or Dorothy, but I was completely overwhelmed by that amount of work, as were most in my class, including the master students. I do not think you'll get quality work from pressuring people to write some 5500+ words on a well-cited, scientific basis in that amount of time.

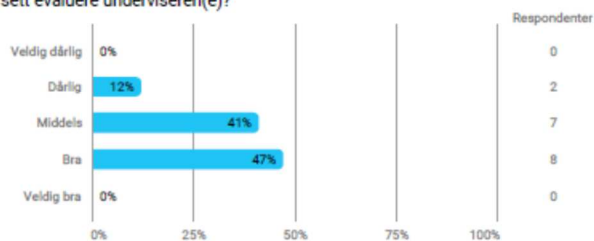
One even told me that they might have accidentally plagiarized in a last-ditch effort to fill the quota, which seems kind of counterproductive.

- Structure on the discussion part is already decent, but have a clear divide of groups from the start.

- Update the course objective – I don't feel that the description online quite match with the class we did have.



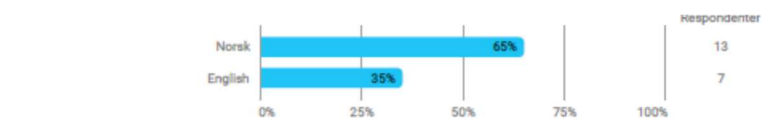
Hvordan vil du totalt sett evaluere underviseren(e)?



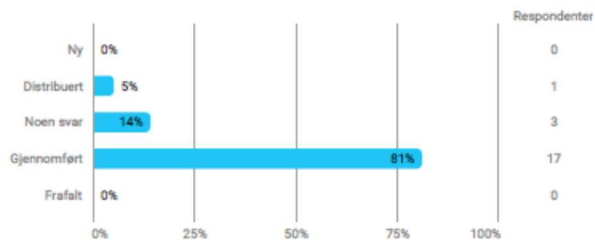
Har du forslag til hvordan underviseren kan forbedre sin undervisning?

- Bedre organisering
- Struktur og bedre kommunikasjon med studentene
- I don't think employing people in the middle of parental leave is the best of ideas. Otherwise, I thought most instructors were good, especially Kevin and Dorothy.
- Presentations made available prior to the lecture.
- Du (Audrey) var engasjert og flink til å snakke relevant, men du var dårlig til å gi ut god informasjon tidlig.
Han mannen var fraværende, ikke med, og det var mer en byrde å ha han i rommet enn noe forbedrende. Å holde diskusjon å se bort på at han er på tif, eller ikke følger med var rart og kjedelig. Også etter at man ikke følger med i timene dømmer essayene så strengt, som man har hatt gjort det er ikke fair. Lite tilbakemeldinger der. Om så store deler av faget er avhengig av det, og det ellers er så dårlig lagt opp kan man fint bruke en time på gjennomgang av essayskrivning.
- Undervisningen var veldig bra. Eneste forbedringen jeg vil se er når det kommer til å svare på mail. Vi var flere som ikke fikk svar på mailene vi sendte, selv om vi sendte flere.
- faget i sin helhet har skapt mye frustrasjon for majoriteten av studentene, da ingen skjente opplegget og poengsettingen mtp avsluttende karakter. diskusjonene var ikke obligatoriske å møte på, men den teller allikevel på karakteren til slutt..
- more specific information about course and assignments
- Ved å undervise og ikke flytte all undervisningen over på studentaktivitet.

Språk



Samlet status



- Decrease the amount of readings and give the students more than a couple a days to read the articles
- Communication between 205 and 208 to ensure that it is possible to attend as much as possible, so nothing collides
- Mer relevante problemstillinger (for en norsk student), bedre kommunikasjon. Få informasjon tidligere. Ha færre diskusjoner, og heller med relevante forelesninger. Det jeg lærte i dette faget var å snakke engelsk og å skrive essay (Ungdomsskole og vgs pensum altså er sååå rart at det er det man skal lære på universitetet. dårlig!)
- I starten av semesteret var det for mange innleveringer, arbeidsmengden var for stor og det gikk utover andre fag. Arbeidsmengden var mer passelig senere i semesteret. Noen ganger var ikke instruksjonene gode nok, og det var uklart hva vi skulle gjøre for eksempel når det kom til "Supermarket Surprise". Foreleser fant derimot en god løsning på dette i ettertid. Tilbakemeldingene på innleveringene var også ofte mangelfull. Vi manglet gjerne poeng flere steder, men det var ikke klart hvorfor vi hadde fått trekk, og dermed visste vi ikke hvordan vi kunne forbedre oss til neste gang. Arbeidsmengden på eksamen var også alt for stor. Å skrive mellom 5500 og 7000 ord på 3 dager, samt gjøre en god jobb og få tid til å finne gode referanser, er å kreve alt for mye. Ja, man kunne gjerne velge temaer man har dekket i sine tidligere innleveringer, men jeg ville lære mest mulig i dette faget og valgte temaer jeg ikke enda hadde fått fordype meg i. Dermed tok det mye tid å finne gode referanser til essayene mine. Jeg klarte heldigvis såvidt å bli ferdig med antall ord og en grei struktur, men det gikk utover referansene. Det var ikke klart hvor mye trekk man får av dette. Flere ble ikke ferdig med sine eksamener, noe som er veldig forståelig med tanke på arbeidsmengden. Jeg synes at mengden ord enten burde kortes ned eller at tidsrammen burde økes, og at måten det fungerte på nå er en urettferdig vurderingsmetode.
- få ned antall karaktergivende situasjoner. 9-10 karakterer er for mye
- the course is quite interesting, but the workload definitely has to be reduced and the exam must be changed!
- Ha en skilleleg plan over faget som studentene får tilgang til med en gang, gi oversikt over hvor mye ting teller i faget, ha mindre studentaktivitet og flere skilleleg forelesninger og gjør om på eksamen.
- restructure and refocus on the course material, which was interesting. The course also lacked structure.

Tilbakemeldinger på organisert praktisk undervisning?

- Alt for mye og rotete
- Likte diskusjonstimen. Lærte å diskutere og snakke engelsk med andre. Likte også at vi hadde noen framføringer, slik at jeg kunne bli mer komfortabel med det.
- Gode diskusjonsgrupper aktuelle utfordringer innenfor oppdrett
- I was very happy with my final group. I liked working with all three, and we had a nice rotation of roles and division of work among us. I felt lucky to have such a nice set of people to work with, since group work can be a bit of a hit and miss for me.

I really enjoyed working with exchange students, and I think it's a good idea to force people to work with others than their best friends.

- The group sessions were very useful and a good way to learn, but sometimes the readings were made available to short time before the sessions
- Nutrient enrichment could have been a bit more in focus, reducing the coverage of genetic introgression of escapees.
- For mange, noe som jeg tror ikke hjalp på motivasjonen. Hadde man helt fritt kunnet finne problemstillinger selv og kunne man finne kulere, mer spennende og mer relevant problemstillinger. Greit nok at du kan mer enn oss, men fra et pedagogisk synspunkt er det greit å ta til seg det som studentene og vil, og hva de interesserer seg for.
- Jeg synes diskusjonstimen var veldig spennende og et bra opplegg. Derimot synes jeg at de teller for lite når det kommer til poeng, da de kun teller 20 poeng. Tror dette var grunnen til at flere ikke hadde lest materialet før diskusjonstimen, som gjorde at de ikke deltok like mye. Ofte var vi de samme personene som diskuterte, og det ble litt kjedelig i lengden. Hadde diskusjonsdelen telt mer tror jeg flere hadde forberedt seg og deltatt aktivt. Jeg savner også en tilbakemelding på diskusjonstimen siden vi ikke har fått vite poengsummen vår enda.
- the group discussions were quite interesting but in the end always led to the same point. I feel like they could have been done more efficiently
- Var seminarene obligatoriske? Det vet jeg fortsatt ikke, så gi skilleleg informasjon. Ha færre seminar

Report on BIO300A, Autumn 2018

This is a summary of the BIO300A course Academic writing, during autumn 2018. We first describe the course design (Appendix 1), the learning activities and the assessment, and our own and the student's interpretations (Appendix 2 and 3) about what worked or not, including some thoughts on how to change the course next time.

Course responsible: Florian Berg and Øyvind Fiksen

Teaching assistants: Sissel Norland, Rebecca Marie Ellul, Heidi Kristina Meyer; Patrik Tang; Hilde Strand Dybevik; Martine Røysted Solås

The course design. We redesigned the course from earlier versions, and developed new learning outcomes:

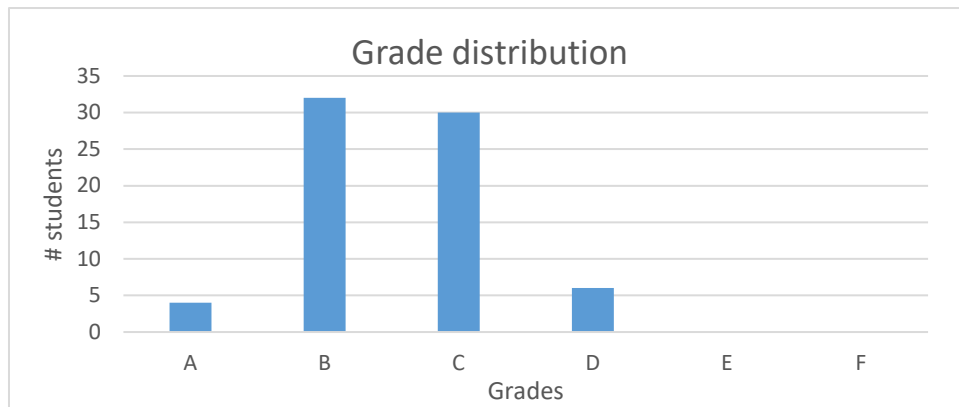
After completing the course, you should be able to:

1. plan and carry out all stages of your own MSc research project
2. present their research results effectively in an oral presentation
3. write up their own research projects in a thesis or article format
4. draw conclusions from results (e.g. graphs of data)

We attach a detailed overview of the course activities and schedule below (Appendix 1, Outline BIO300A). The main elements are summarized here:

Learning activity	#	Time factor	Hours	Grading weight
Class meetings	14	2,0	28	
Group report	1	34,0	34	30,0%
Field work	1	8,0	8	
Term paper	1	40,00	40	40,0%
Peer review	2	5,0	10	15,0%
Presentation	1	10,0	10	15,0%
In total			130	100,0%

The assessment led to this final grading pattern:



What did we do? How did it go?

We started out in late August by going through the course plan and divide students into groups, and introduced them to writing the section Materials and methods in a thesis. The groups were sorted by study direction, with 4-5 students in each. Then we let the groups out to find data for their report, from publically available databases. Some collected their own data during other courses (marine biologists, microbiology). We had a long period early in the course when students focused on the course in statistics and R (BIO300B). We encouraged the students to use and analyse in this course, but we did not provide a plan for this, and our impression was that the two courses did not connect very well.

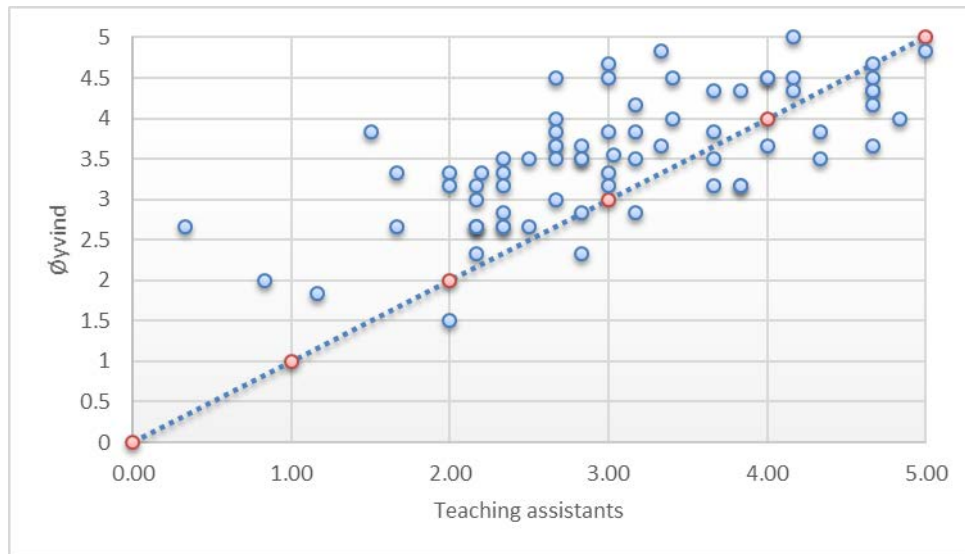
In the first place, we underestimated the struggle students would have in defining their own research question and further collect appropriate data to answer this question. All groups were assigned to one teaching assistant who should assist them with writing up their group report. Even though, background information on essential aspects for the “Material & Methods” as well as “Results” part of a scientific report were provided via lectures, most student groups struggled to meet the basic criteria. These problems might arise due to the large break of 6 week between the two introductory lectures and the following lectures on “How to write results”. For the next year, the plan should be to have more regular lectures and focus more on the essential parts, rather than given a large overview. In addition, the connection between BIO300A and 300B needs to be re-evaluated.

We met the students again in late October, and then had a series of lectures on academic writing, IMRAD, scientific process, finding and using scientific literature, supervision, science-policy interface and similar. We had not aligned these lectures with any assessment activity or exams, assuming that master students would attend the classes despite the absence of relevance to assessment. However, these lectures were quickly abandoned by the students, and soon only about 10-20 students out of 85 showed up. In the evaluation form, students point at the early morning lecture time as one possible reason for this, but given that other courses with 08:15 lectures do not experience the same, we suspect the lack of relevance to grading is the main explanation.

The other main activity was an individual written assignment, as training in writing an introduction to a thesis, of 2-3000 words in total. The students could choose their topic, and were encouraged to use their thesis-topic to save total workload. However, few had planned a specific topic within the time limit. Still, our impression was that this did trigger some more

thinking about where they were heading for the master project. The term paper was uploaded to MittUiB, and then redistributed for peer review by two students, then a comment by one TA and the teacher in the end. Both the introductions and the peer-reviews were quite good, and this seems to be an efficient way to get massive feedback from others. We should have included a revision process as well, but it is quite intensive both to the students and the teachers with the time this takes as it is.

All of the term papers was assessed and scored by Øyvind Fiksen, but TA's were asked to score the text they commented as well, independently, as a check on the reproducibility of the assessment. Here are the data that emerged from this:



The line in this diagram represent the target where assessments made by different teachers are equal. Clearly, the teacher (Øyvind) provides higher scores than the TA's (more points above the line), but there is a clear correlation in the assessment. Some individual differences between the TAs were also evident in the data (not shown).

What should we do differently next time?

The feedback from the students are generally positive, but many pointing out that the course is intensive for 5 ECTS. Possibly is the group project and the written assignment underestimated in our time-estimates, especially since students struggled to make use of their own master projects for the writing. Here are some ideas for next time/future courses:

- 1) Reduce the length of the term paper to maximum 1000 words, and let it be only introduction.
- 2) Reduce the peer-review and presentation part to count 10% each, the term paper to 30% and then have 20% left to a few short assignment connected to the lecturing. For instance, short specific writing exercises to be handed in, and an assignment about science, supervision, master project, or other issues that is treated in there. Alternatively, some individual/team scratch-card quizzes in class that count a small fraction of the final grade.
- 3) Work with bioWrite and bioST@AT to develop relevant resources. Focus more on descriptive statistics, developing good figures, and less on statistical hypothesis testing?

- 4) Integrate better with BIO300B, have a dedicated BIO300B-component directed towards the data presentation and analysis that is part of BIO300A. Spread the lectures in both courses over a longer period in time to make it possible.
- 5) Alternatively – take the whole group out of town for 1-3 days and dropping the lectures? A more intense and social event that covers it all? This requires some funding and organization. Or just three full day seminars – with student activities included, distributed over the semester, including pizza or lunch? This could be combined with some group activities/tutorials where students meet before they submit smaller assignments like rewriting a poorly written piece of text, plot a figure of data and figure text, write an abstract etc. – possibly connected to the report assignment?
- 6) Make one single report with all elements in place? One possibility is that students write an individual introduction and discussion, and a group MM and results - all on the same topic. First, the groups have to decide on a question, then they can write an introduction individually, find the data, develop a joint MM and results section, and finally an individual discussion. This model reduce the free rider problem. The peer review could be done on a draft version, with a possibility to revise and reply to comments, before the final version is delivered for assessment. This require an early decision on topic, and streamlining of data, so that the report is ready in time for peer review and revision.
- 7) We need to train students in group work, and emphasise the importance of this skill. Perhaps will we also be allowed to let students assess each other's contribution to the group activity? Maybe we should give students active roles in the group also, have one group leader, the lead author of the report. A challenge here is that teachers need to strengthen our knowledge in [cooperative learning](#) – but our ambition of making teamwork an integral part of BIO300A remains.
- 8) We noticed that students in general had gaps in their it-competence related to interactions with the UiB resources. For instance, many did not seem to know that they had access to servers with regular backup through their student login, or that the UiB resources could be accessed with VPN connection. We need to make sure that all students are aware of this, and include a module in MittUiB with all necessary information.

Suggestions from one of the TA's.

1. I think it is super important for them to learn how to write an intro and conclusion, but perhaps instead of splitting the group report and individual essay, combine them so they only have one big assignment rather than 2 and they can get the experience from writing a whole report rather than the disjunction. This was one of the biggest comments I had when I met with all of my groups. That and the fact that there was a disproportionate amount of work between group members, but none of them wanted to 'publically' mark down who did not contribute enough during the process (in the order of the co-author list) on hand-in. I understand it is important for them to learn how to work in groups since that will happen in their career, but I think the assignments should be combined to one big assignment in more of the AIMRD style, either as a group or an individual report instead of having the two assignments. Then peer-review process could be longer and we could have two/three days for presentation/poster session rather than just one half-day.

2. The students are already complaining that there is too much workload, adding more short assignments is not going to help, even if you reduce the word limit. I do think it could be useful to have short assignments based on lectures though, but instead of them handing it in to us to grade, make it more of a discussion activity on mittuib where we have like three discussion points people can participate in each week or every other week based on the lectures and the students have to comment on at least one of them. I did this during my bachelor's degree for a few of my classes, and it was a good way to get students involved and to pay attention. Or have short quizzes at the end of the lecture and the students would only be able to miss like 3 or 5 of the lectures (depending on how long they are).

3. There really should be a tie-in point between BIO300B and BIO300A, but it should also be emphasized to the students that they do not have to actually use R for their stats, just a suitable statistical program.

4. I am not sure how a 1-3 day trip out of town will really help? Unless they all collect their data/work on their project together then.

BIO 300 autumn 2018

Aim and content

The course aims to give students the knowledge needed to plan a basic scientific study, carry out appropriate statistical analyses, interpret results and report these in written and oral formats. The course is an introduction to the formulation of hypotheses, design of research projects, and scientific writing. Students will get practice with scientific reporting through keeping a record of methods and results based on their own field project data sets.

Learning outcomes

After completing the course, you should be able to:

1. plan and carry out all stages of your own MSc research project
2. present your research results effectively
3. write up your own research projects in a thesis or article format
4. draw conclusions from results (e.g. graphs of data)

General info

First meeting: Thursday 16th of August, 12:15. Thormøhlens gate 51 (VilVite), Auditorium. At VilVite, two stairs up.

Class activity: We prefer student-active learning, and the time in class include much group discussions, and some tutorials related to the group assignments and projects. You will only encounter a few traditional lectures. It is more engaging and fun to talk and discuss with others than to just sit and listen, and you learn and remember more. Therefore, attend classes and prepare for it.

Work in groups: At the beginning of the semester, we split all of you into groups of 4-6 students. You work in these groups throughout the course, in class and within the group projects. Parts of the class activities are preparations for the projects, and you can work with the projects in some of the class time, with supervision from the teachers and teaching assistants. Working with others is an important skill. In fact, employers are looking for collaborative employees, and your ability to function within a group is a key success factor in academic life.

Teachers: [Florian Berg](#) (post doc, course leader) and [Øyvind Fiksen](#) (professor, course leader).

Required reading: We use no specific textbook for this course. However, we recommend looking into library web pages for some general writing advice (e.g. “Guides to Better Science” by the British ecological Society, or the “Ten Simple Rules” series published by PLOS Computational Biology. In addition, you are going to read several scientific articles during the course.

Workload & assessment

Assessment: Various individual and group assignments. See the table below for more details. We provide the exact criteria and rubrics for all assessment activities as the course progresses, on MittUiB.

Workload: Approximately 130 hours is the standard workload for 5 ECTS. The table below specifies the estimated workload on each learning activity, and its particular weight in the final assessment.

Learning activity	#	Time factor	Hours	Grading weight
Class meetings	14	2,0	28	
Group report	1	34,0	34	30,0%
Field work	1	8,0	8	
Term paper	1	40,00	40	40,0%
Peer-review	1	10,0	10	15,0%
Presentation	1	10,0	10	15,0%
In total			130	100,0%

Learning activities and outcomes

Class meetings/lectures: We will meet regularly and work our way through the course content. You find the schedule for these meetings in the table below. We announce changes or deviations at MittUiB, so make sure you follow the information there.

A central goal of the course is to learn to ‘think, read and write critical’ in a scientific world. In the written assignments and presentation, you have to demonstrate this knowledge, and during class meetings, we will prepare for it through organized group discussions and tutorials.

Learning outcomes developed here: 1, 2, 3, 4.

Group work: The group work involves planning and conducting your own research/field project. The main goal for this is to conduct the fieldwork and to present your results in an efficient way, both written and oral. For the group work and report, each group will be assigned to one teaching assistant who will help you during the semester.

Learning outcomes: 1, 2.

Term paper and peer-review: You also get training in writing a scholarly text on a scientific biological issue. There will be two options to choose the topic for the term paper: (1) your own master project or (2) we will provide you data. Start thinking about a theme early – you can suggest a theme in MittUiB and receive comments and suggestions from the teachers until 25th of October, which is the deadline to decide on a topic.

You also have to read and comment on two another student assignment (peer-review). This peer-review is part of the final grading (15%). In addition, you will receive comments and feedback from other students and the teachers on your own assignment. Revising these comments is optional, but can be beneficial.

One of the core academic values and an inherent element of a scholarly text is to give credits to your sources and earlier work, and to be able to separate own contributions from others. We routinely check all assignments for plagiarism. Remember, plagiarism includes copying text (including translating) word by word from other sources, even if you refer to them. The art of the game is to write well referenced, but *independent* texts – where you develop your own perspective on the topic.

Learning outcomes: 3, 4.

Detailed work plan BIO300 2018:

Week	Date Time	Who	Theme	Place
33	16.08 12:15	FB	Introduction. Forming groups. Learning activities.	VilVite aud.
33	17.08 12:15	FB	Writing I: Material and methods	VilVite aud.
34- 41	20.08 12.10	ST	Fieldwork	
43	22.10 08:15		Writing II: Results	VilVite aud.
43	23.10 12:00	ST	Submission I: Material and methods to TAs	
43	25.10 08:15		Writing III: Introduction	VilVite aud.
43	25.10 12:00	ST	Deadline topic selection "Term paper"	
43	26.10 16:00	TA	Feedback I: Material and methods from TAs	
44	29.10 08:15	FB	Plagiarism	VilVite aud.
44	30.10 12:00	ST	Submission II: Results to TAs	
44	01.11 08:15		Critical reading I	VilVite aud.
44	02.11 16:00	TA	Feedback II: Results from TAs	
45	05.11 08:15	HF	How to cite: using the right references	VilVite aud.
45	08.11 08:15	ØF	Writing IV: Discussion	VilVite aud.
45	09.11 16:00	ST	Submission III: Final report	
46	12.11 08:15	VV	Scientific misconduct: What is it, why does it matter & how do we deal with it?	VilVite aud.
46	15.11 08:15		Critical reading II	VilVite aud.
47	19.11 08:15	FB	What is peer-review?	VilVite aud.
47	22.11 08:15		How to present: Presentation vs. poster? Or something else?	VilVite aud.
47	23.11 16:00	ST	Submission IV: Term paper for peer-review	
48	26.11 08:15	VV	How to be successful supervised!	VilVite aud.
48	29.11 08:15		Open session	VilVite aud.
48	30.11 16:00	ST	Feedback III: Review of term paper	
49	07.12 08:15	ST	Final presentations	HiB – Stort aud.
49	07.12 18:00	ST	Submission V: Response letter to review	

FB = Florian Berg
ST = Students
HF = Hege Folkestad

ØF = Øyvind Fiksen
TA = Teaching assistant
VV = Vigdis Vandvik

Lecture
Optional
Mandatory

Appendix 2. Feedback from students after the course

What did you expect to learn from this course before you started? What generic skills did you think you needed to do your Master project and thesis?	What I liked about the course	Things that should be changed or improved	We included a series of lectures as part of the course, mainly on topics that should make it easier for you to succeed in writing your thesis. However, we had very low attendance. Our colleagues tell us to make these lectures mandatory, because now they have to give all this information to you one by one. What was the main reasons for not attending? Anything (besides making it mandatory) we could have done to increase attendance?
I expected to get a brief introduction to academic writing and reading. These skills were required mostly before this course, and not during or after it.	I liked the individual assignment and the feedback/review process	My grade was severely affected by the group report. My group suffered from several students "not bothering" to work continuously through the semester. The group was dysfunctional, though I tried to gather the other group members for sessions, it was impossible. The group task suffered severely from this and it affected my grade towards the final grade.	Decrease number of lectures or attendance based work, that would literally solve your problem. I think students attended the amount they felt they could without it getting in the way of other subjects. This course had far too much going on, it seemed unstructured and messy at times.
I think that the name of the course is completely inappropriate and in the description of the course, it is little explained that the main scope of the course is literally how to write a scientific paper, peer-review and make a presentation/poster.	1) the course touched topics that personally I've never heard before. Lectures like the process of peer reviewing, ethic, critical reading, and scientific methods were all very useful. These are topic that no one ever talks about in an informative way, but that are super important in the everyday life of a researcher.	1) citation platform lecture: I think it is really important to ask the class what are the most used programs for citing before to do a lecture about them. The lecture on EndNote was little useful if Mendeley or other programs are more used instead. After obtaining what is the most used program by the students in the course, organize a lecture on it to describe how it works would be the best. 2) Sometimes the scope of the writing was mixed between writing a master thesis/report and writing an article. I think would be best to focus on how to write an article more than how to write a report or a master thesis in general, as it was done for most of the time during the lectures.	
The course surpassed positively all my expectations and the topics explained during the lectures will be useful and hopefully sufficient to perform a good Master project.	2) I liked how different professors/people were involved in giving lectures. 3) I liked how the professors followed the students with emails and descriptions of the ongoing assignments.	3) Maybe a lecture to learn how to interpret the results of a research would have been very useful. 4) I understand that working in a group can be useful and the amount of work for professors are less, but I find that having a grade depending on other people is very little convenient. 5) very very important, maybe at the beginning, saying how figures and tables should look like.	I personally think that the lectures were great... Obviously a bit heavy to have at 8.30 in the morning, but definitely worth it for the motivations I stated before.
I had no expectations of the course, only took it since it is mandatory. The purpose of the course was quite unclear. To do my master project I think I would need to practice writing, finding literature and get some tips on where to look for a project.	4) I loved the last lecture when presentations and poster were showed together with some food and all the people. I liked that although the workload is a bit high with two assignments, they are quite small and the essays are quite doable. I liked that there was extensive help and quick responses from teachers and assistants. I liked the presentation day. It's interesting to get a view of everybody's project and see how and what other people has done. Thanks for the coffee and cake, much appreciated.	6) Of little importance, but still... The course required continuous attention and effort for the duration of the whole semester, apart from the lectures. The load of work was way over 5 credit points even more if someone wants to achieve high scores. 7) way too much importance to plagiarism and copyright. Instead of (or in addition to) having peer review on term paper, assing group reports that groups can peer review. This will help the discussion after presentations as the reviewer naturally can start up the questioning and feedback. Talk to eachother. It's hard too understand the assignment and peer review criteria when teachers assistants doesn't have the same view on the assignments or if the two head teachers promote two different styles of writing. Try to make power points and assignment criteria understandable on their own. You need to be able to read and understand your powerpoints and criteria without asking questions if you're not able to meet up. Try to set deadlines a bit earlier and make use of the four weeks of nothing in the beginning. At least get criteria for term paper up early so you can lay out the work on your own. Students, who have not started on their final Master project and thesis, should be barred from attending the course. The work load without being able to piggy back on the Master project or thesis is way more than the 5 points of study credit. Drop the group task and make a two step submission of the individual task, pre- and post peer-review.	Have to get up at 6 to make to 8.15 lecture and my motivation don't get higher when my friends tell me they are useless. Didn't attend lectures so can't say anything about the content, but if I was going to attend them they need to be earliest 10 am. Since you have all of the master students in this course and scheduling the course in hours when everybody can attend is probably impossible, you might wanna post powerpoints which are understandable and clear without an oral presentation to get your message across.
How to write master project and thesis. Knowledge about the topic and how to write	A lot of good tips about scientific writing and how to work with the Master project and thesis.	The presentation day should have been held prior to the start of the exam period or at the start of next semester (not a problem if the students only have this subject and the Master project/thesis).	Probably because a lot of the students have followed other subjects or that the few lectures that they did attend were about topics that have already been covered in lectures in lower level subjects. Because it is sometimes unnecessary like the first lecture: get to know each other...wast of time - group work in the lecture ...boring - Florian never seem happy with us, while Øyvind was more nice to us and optimistic - that both of lectures started at 8:15 - the information given in lectures you could easily know before or just read the pp.
	Nothing	Less assignmenets	I think you should give more credits because this course had a lot of work compared to other subjects at 5 credits or the same amount of work as 10 credits subject...
From this course i expected to learn the correct way to write a scientific text, how to handle data and general advice as to how I should proceed with developing a master thesis.	The course was very informative on how to master scientific writing, and I really liked that the course was not a streamlined process and forces us as students to be independent in our work. The lectures were very good and the TA's were very helpful (Big shout out to Patrick).	One of my biggest issues with the course was that there were no lectures for an entire month. I know that this was due to overlapping courses(bio325?), but maybe there could have been extra lectures for the students which were unable to attend due to this course? The group project was in many ways a challenge, as it was quite hard to find relevant raw data. I can see the value in having to interpret other peoples raw data, but due to the lack of data relevant to our masters direction we had to go for something which was not quite relevant. Maybe there could be raw data produced from the university available so that all students got to analyze data relevant for their masters? This part of the course may have actually been really good for everyone else and me and my group just kinda did a bad job.	Tried to attend most of the lectures, but had to skip some due to overlapping lectures, sickness and the like. There is also the concept the 8 am Monday lecture which i know for a fact that neither me or most of my colleagues are too fond of and was probably a good reason for there being such low attendance on these days. I believe that a big problem with attendance was that many people believed they already "knew" what was being spoken about in the lecture, due to writing in previous courses. Maybe make it more clear to people that what they learn in these lectures is not the same as what they have had in previous courses because it was rather obvious that some students did not "know" how to write
Besides the related knowledge on the subject and laboratory techniques, I thought I would also need a better understanding of source siting, proper writing techniques and master creative thinking when it came to developing my thesis.		I would also have liked it if we had written two term papers in this subject and then had two peer reviews. I personally did not feel like i got the most out of my peer reviews by not trying to fix the issues which they had with my paper. Would be nice to have another chance to learn from my mistakes and thus improve my scientific writing. This also applies to the other students as well, as the peer-review process really did demonstrate that some students could use an extra guiding hand in order to become better at writing. (Probably applies to me as well) To criticize the teaching staff, I will say that it is quite odd that the main teachers Florian and Øyvind were not in agreement over how several things should be done. I understand that there is not really a "correct" answer all the time and things can come down to personal opinion and preference, but the teaching staff being in disagreement over certain matters makes it quite hard for us students to know what is right and what is wrong.	As you have said, people skipping lectures means that TA's and supervisors will have extra work on their hands. Making it mandatory would in my opinion be a good way to go forward, this is a matter of great importance to the rest of the students master projects and if people are willing to dedicate thousands of hours to their master projects, they should also be willing to dedicate a couple of hours a week to lectures. All in all I will say that the course was a very valuable experience and I believe it will be very helpful in my future work with a master thesis

From the course I expected to:

- learn how to structure a thesis in a good manner
- use literature in a correct way
- develop my critical thinking skills
- present results in forms of tables and figures in an appropriate way

Skills I thought I needed:

- good scientific writing skills
- good referencing technique
- able to illustrate my findings in a good way
- your effort to redesign this course
- the group project + presentation

I see were you wanted to go with this course design, and I get how important it is to begin thinking about our writing early in the masters. I guess the supervisors will thank you for this effort! However, the workload of this course is huge. Even if you considered the regulations for 5 ECTS, it was intense.

I found it very OK to include the group work with optional deadlines to give us an idea of how it is to receive feedback during the writing process. Our group got to conduct active sampling and got a good idea of how a big project like our master thesis might be like. I found it nice to combine this work with posters and presentations since this is a relevant part of our thesis.

The individual term paper, on the other hand, was challenging in combination with deadlines in BIO325. I know that your aim was to introduce us to the world of peer-reviewing, but there must be another way to this.

-every lecture was at 08.15. I understand that it might be hard to fit everyone's schedule but this is very early. I am a semi-earlybird but found it hard to motivate myself going

-interactive sessions are a nice thought and can be very relevant, but maybe not at 08.15

-sometimes I felt intimidated by the way the lecture was hold. A serious topic can be presented in a nice and interactive way without scaring us students :) Introduce us slowly to this scientific battlefield....

-the semester itself was very intense and I was very busy with the other courses in addition to this one - sometimes I just did not prioritise lectures

About making the lectures mandatory: Please don't. It is really hard to get through this semester and I feel everyone benefits from this course one way or another. We have the lecture notes and I will definitely use these when starting my writing process. Mandatory lectures are old school - try to schedule them a bit later and motivate rather than scare us to write :)

From the 'open channel'

(Two student responses)

"I have never had such a heavy workload in a subject, and this is not a regular workload for a 5stp subject. The group report itself + lectures would be enough to make a 5stp subject from what I am used to. Second of all, it is really unfair of you to allocate ""30 hours"" to one task and ""40 hours"" to another. This is not how it works. We spent way more than 34 hours on our group report, because it was very demanding. Doing the codes took most of the hours (about 15), and I don't even know if that was something that was taken into consideration when allocating time. Or the fact that making a presentation was an additional 2-5 hours spent on this task.

Regarding this, I was not the only one to react when asked not to attend R club for help. We too understand that this is not what the club is for, but we had no other way of making our codes. The group report calls for things we have no way of doing without help or spending countless hours working on it and struggling our way to a solution, which again makes the time allocation useless and unfair to the students. If I can make a suggestion for next year it would be to hire in TAs with experience in R, and preferably have your own R club or writer's club. That way you can show students how you want them to make their graphs, as we spent hours making graphs that we were later told wasn't very publishable. I don't think it's very constructive to show this to us long after the group report is submitted.

I did not find that the course leaders were very lenient about offering help when asked, as they would mainly just refer to pages/things that had already been said (and as a fourth year one would of course have done this research before actually asking a question, so this is neither helpful nor constructive). I understand that it is necessary that we do our own research, but when presenting a question in a way that makes it clear that one has done the necessary research, it seems almost insulting to just refer back to something that was the background for my question.

The scientific essay was a very diffuse exercise which many of us have never done before, and you would barely tell us how to write it or give examples, which I believe would have helped a great deal. Now that I have gotten feedback from the course leader I can obviously see that he had something different in mind than what I wrote. Interestingly, the people who did the peer review applauded the same parts of the essay that he criticized, which indicates that they didn't know how to write a scientific essay either.

I was initially happy with the peer review exercise because I felt like I learned something from telling others what was good and lacking from their text, but with the paragraph above in mind, I obviously had no business correcting someone else's essay because I apparently did it wrong myself. I think for next year you could benefit from uploading an example of a scientific essay so that students may actually understand what it is, and what they are supposed to include. I think that way they can learn a lot more because they also know what to look for in their own text and in other people's text.

I also disagree on your choice not to allow us to submit our essays to TAs during writing, if needed. The point of the class is to learn how to write those things, and if you won't allow us to get feedback underway so that we can make adjustments accordingly, there's really no point. I could take suggestions and learn from the people who did the peer review for my paper, but I really don't see the point when they have much of the same background and prerequisites as I have for writing the paper. So instead, I have pretty much only the feedback from the teacher so far, that I can use to make changes. But I think I would have learned so much more if I had gotten some of this feedback during the writing process, so that I could adjust my essay accordingly.

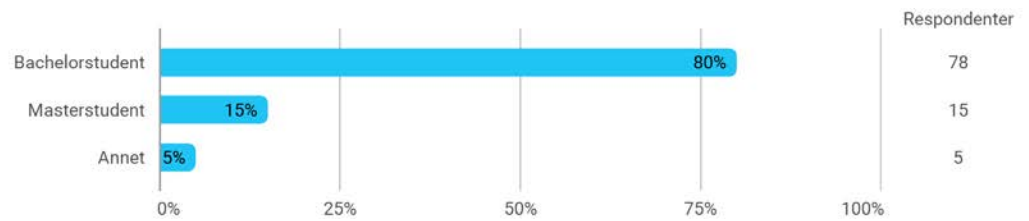
TAs and course leaders gave very different feedback on the report submissions. Things were moved between different sections by one person who reviewed the paper, and then moved back to its original place by the next person reviewing it. This was very confusing and in the end we decided to go with the feedback of the course leader, but I feel like this indirectly undermines/invalidates the TA's feedback. I guess that a lot of the feedback is based on acquired taste, but we're here to learn and we often got so confused that we ended up deleting entire paragraphs because different feedback said different things about it.

That being said: I have learned a bit about what is expected to be included in the different sections of a thesis, but this is the bare minimum of what I would have expected as a takeaway from this subject. When considering the amount of lectures and the workload, I would evaluate the learning as being inefficient. A lot more time than necessary was spent on struggling with R or similar, and I feel like if we had been allowed to attend R groups or had our own collective study group for the course, our takeaway from the subject could have been so much higher."

"there should be an option for peer evaluation of your group members and yourself after the report is handed in but before the grading (and if there already is: my bad). for example, contribution to discussion/writing, attending study group meetings, and doing homework that has been agreed upon in study group.

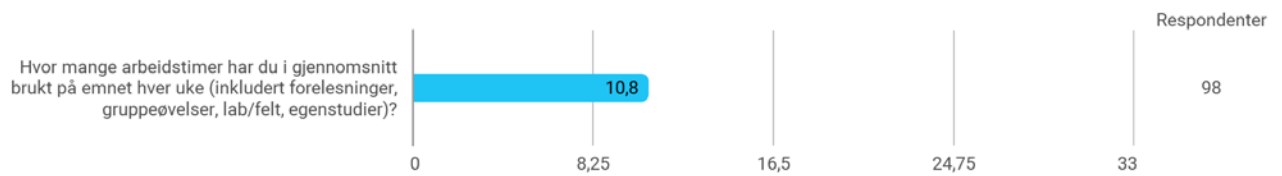
We're experiencing that not everyone in the group is pulling their load (or doing work at all), and should this continue, then getting the same grade as them sucks"

Er du?

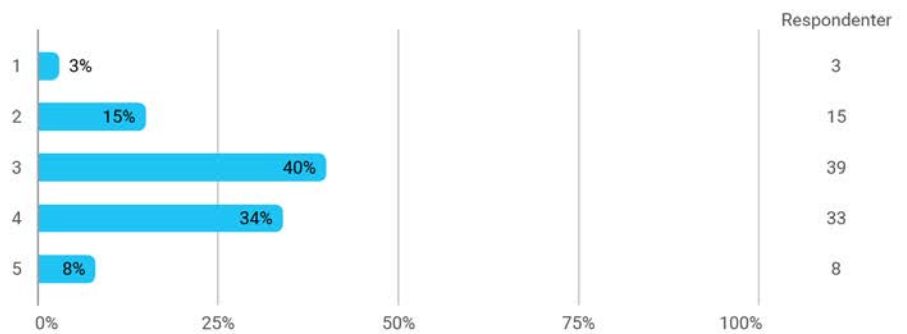


Er du? - Annet

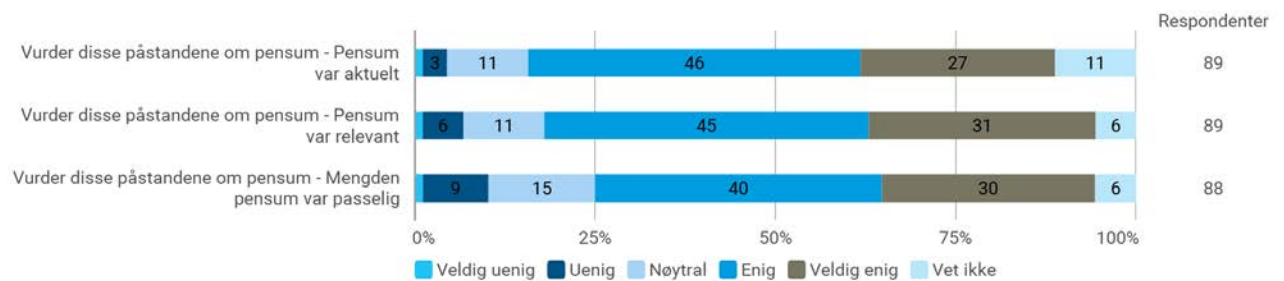
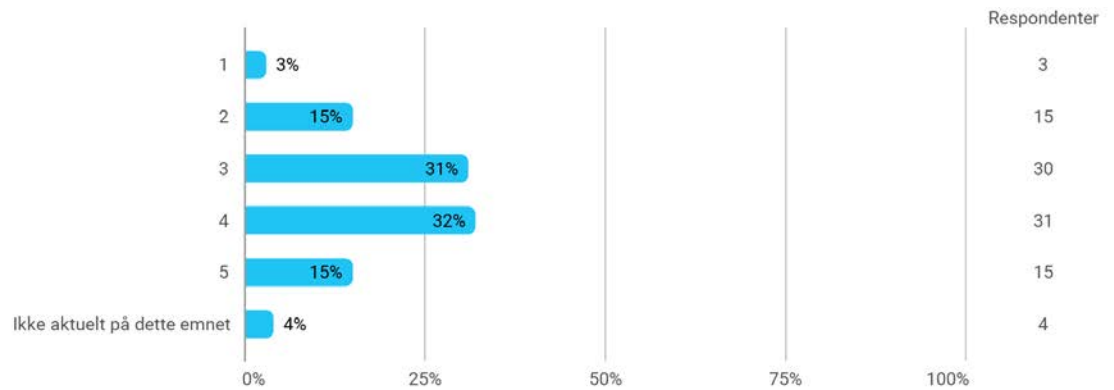
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- Tar opp igjen faget
- post-degree student
- Integrert master
- Tar faget gjennom videregående skole



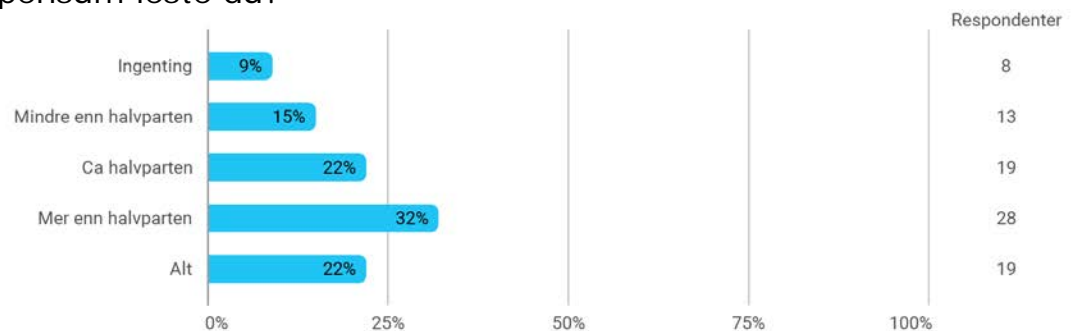
Hvor mye teoretisk kunnskap har du tilegnet deg på dette emnet? (1 = ingen, 5 = mye)

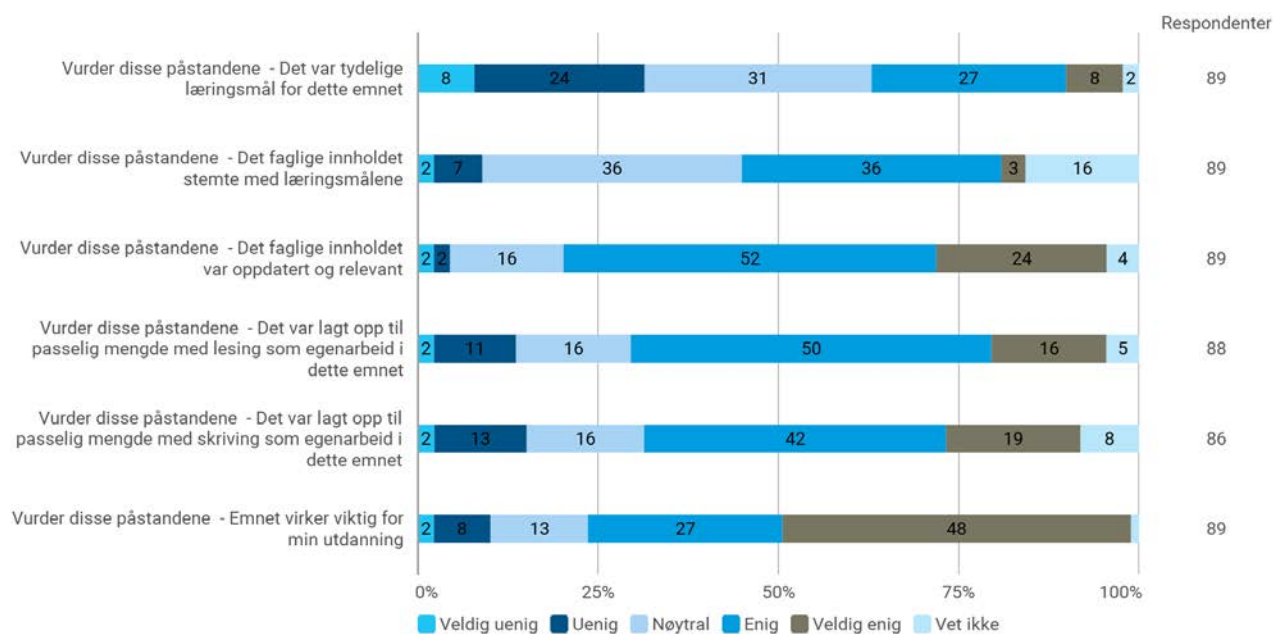


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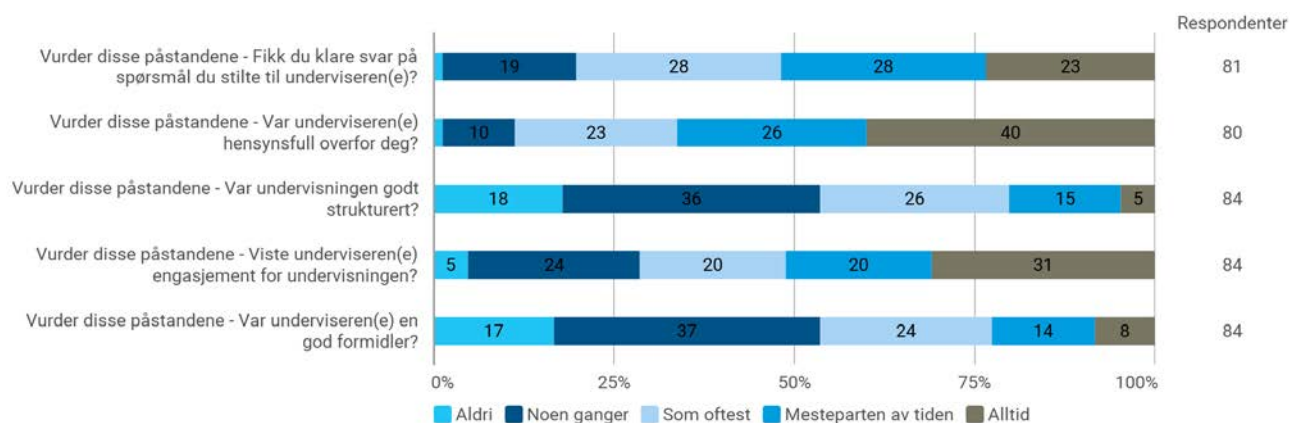
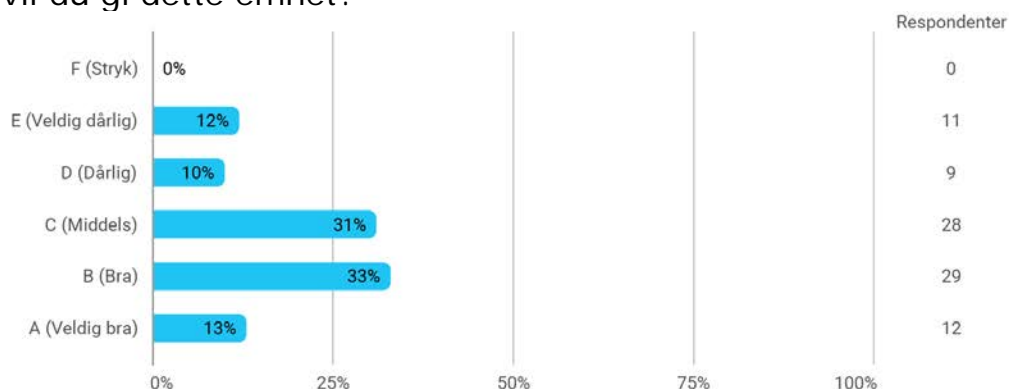


Hvor mye av pensum leste du?

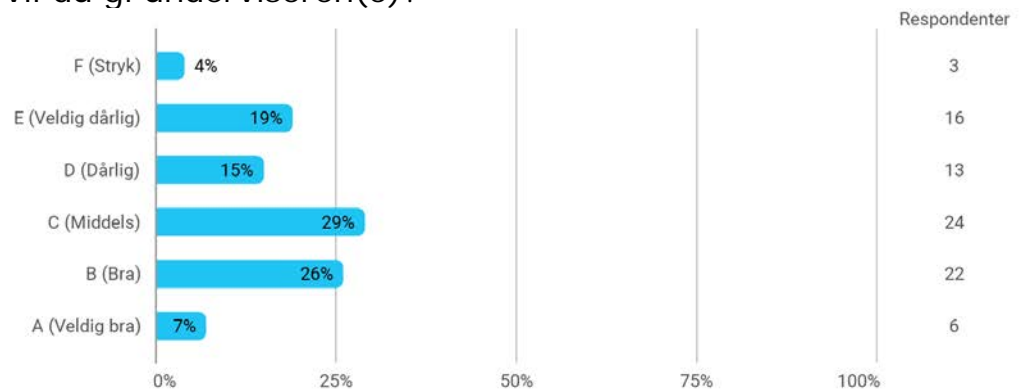




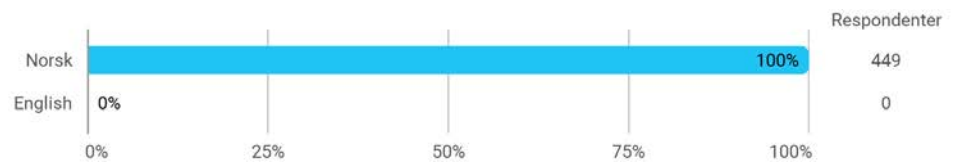
Hvilken karakter vil du gi dette emnet?



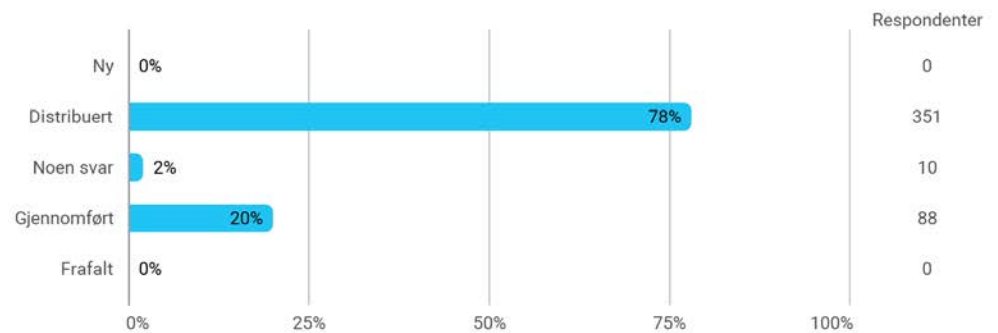
Hvilken karakter vil du gi underviseren(e)?



Språk



Samlet status



KJEM/FARM110 - Emnerapport 2018 vår

Faglærers vurdering av gjennomføring

Praktisk gjennomføring

Undervisningen i KJEM/FARM110 ble gitt som forelesninger (2x2t pr uke, i alt 48 timer), kollokvier (5x2t pr uke, i 14 uker). I tillegg ble det utført et laboratoriekurs med 5 øvelser over 5 uker. Det ble gitt laboratorieførelsesninger (2t pr. øvelse, i alt 10 timer) i tilknytning til laboratorieøvelsene. Laboratoriekurset ble gjennomført de fire første dagene i uken, i ukenummer 6, 8, 10, 12, 14. Forelesningene ble avsluttet med repetisjon 18. mai. Denne repetisjonen ble gjennomført ved bruk av en quiz (Kahoot). Det ble også gjennomført en ekstra repetisjonsforelesning 23. mai, og da ble kun tavle brukt. I enkelte av forelesningene blir det utført demonstrasjonseksperimenter. Dette semesteret ble det tatt i bruk studentaktiv undervisning i form av en spesiell type quiz (Kahoot). Dette ga studentene mulighet til å aktivt diskutere viktige tema fra forelesningen med hverandre. Kollokviene ble avsluttet i uke 20 (18. mai). Emnet inneholdt en obligatorisk innleveringsoppgave med frist 26. februar. Det blir ikke gitt karakter for innleveringsoppgaven, men 50 % må være korrekt for å få oppgaven godkjent. Emnet inneholder også en midtsemestereksamen (12. mars) basert på flervalgsprøver over 2 timer. Endelig eksamen var 16. juni. Dette var første gang avsluttende eksamen var digital. Gjennomføringen av den digitale eksamen gikk bra.

Strykprosent og frafall

Det er relativt lite frafall for emnet. Det var 240 studenter oppmeldt (213 på KJEM-kode og 27 på FARM-kode) og 185 studenter (161 på KJEM-kode og 24 på FARM-kode) møtte til avsluttende eksamen og 143 besto eksamen (119 på KJEM-kode og 24 på FARM-kode). Det gir en total strykeprosent på 23% av dem som møtte (25% for KJEM-kode og 0% for FARM-kode). Det er høyere sammenlignet med foregående vårsemestre (V2016:16%; V2017: 17%). Årsaken til dette er ukjent, men kan ha sammenheng med at det var første gang endelig eksamen var digital, noe som fører til en endring i typen spørsmål som stilles.

Karakterfordeling

Karakterfordelingene i de to emnene er (antall studenter i parentes): KJEM110: A(3), B(31), C(37), D(23), E(25), F(40); FARM110: A(6), B(11), C(6), D(0), E(1), F(0). Dette gir snittkarakter C for KJEM110 og B for FARM110. Dette er de samme snittkarakterer som i V2017. Karakterene beregnes som et vektet middel av midtsemestereksamen (30%) og avsluttende eksamen (70%). For mange gjorde resultatet for midtsemestereksamen at de fikk en dårligere karakter enn om bare avsluttende eksamen hadde blitt lagt til grunn.

Studieinformasjon og dokumentasjon

Studentportalen Mitt UiB fungerer bra som forum for opplysninger og løpende informasjon. Noe av den samme informasjon ble også gitt på forelesningene. Spørsmål og henvendelser ble besvart på e-post, eller via meldingssystemet på Mitt UiB. Forelesningene er en kombinasjon av powerpoint-presentasjon og tavleundervisning. En kopi av forelesningene lagt ut på Mitt UiB for hvert kapittel, men i hovedsak kun den delen som blir presentert på powerpoint, og ikke den delen som tas på tavlen. Et kort sammendrag av forelesningen lagt ut på Mitt UiB i forkant av hvert tema (kap. i boken).

Tilgang til relevant litteratur

Lærebok og hjelpelitteratur ble solgt på bokhandelen på Studentsenteret. Laboratorieheftet og alle kollokvie- og tidligere eksamensoppgaver, samt fasit til disse ble gjort tilgjengelig på Mitt UiB. Det samme gjelder fullstendige løsningsforslag til kollokvieoppgaver. Et kort sammendrag av forelesningen lagt ut på Mitt UiB i forkant av hvert tema (kap. i boken).

Faglærers vurdering av rammevilkårene

Lokaler og undervisningsutstyr

Auditorium 1 fungerer godt som forelesningsrom. Det audiovisuelle utstyret fungerer bra, selv om mikrofonen faller ut i korte øyeblikk hvis man beveger seg for langt ut på kantene. Både lysark (powerpoint) og tavle brukes i undervisningen. Det ble det utført en rekke demonstrasjonsforsøk i auditoriet, og lokalet fungerer bra til dette formålet. Gjennomføring av quiz, ved bruk av Kahoot-programvaren, fungerer også bra. Laboratoriesalene blir benyttet de fire første dagene i uken og med maksimalt 20 studenter pr gruppe. Lokalene og ordningen fungerer fint.

Andre forhold

KJEM/FARM110 blir i vårsemesteret i stor grad tatt av studenter som ikke tar sikte på BSc eller MSc i kjemi. Av dem som svarte på evalueringen planlegger de fleste en grad i biologi (57%), og deretter farmasi (17%), geologi (9%), molekylærbiologi (9%), og bare 9% en grad i kjemi. Halvparten av de som deltok i undersøkelsen har tatt KJEM100 om høsten og fortsetter med KJEM110 i vårsemesteret. Det er 69% som har Kjemi 1 som bakgrunnskunnskap og 35% som har Kjemi 2. Dette gir en inhomogen gruppe av studenter. Dette er en utfordring for foreleser og for laboratorie-personalet. Mange ulike emner blir tatt ved siden av KJEM/FARM110. Noen av disse krever både obligatoriske innleveringer, lab, feltarbeid og ekskursjoner, spesielt for de som går på biologi-studiet. Avviklingen av emnet krever derfor god planlegging og fleksibilitet i gjennomføringen av kurset og det er tungt å administrere. Dette gjelder særlig i forhold til fagområdet biologi som har et omfattende labkurs og mange studenter. Antall biologistudenter som tar kurset har økt de siste semestrene.

Faglærers kommentar til student-evalueringen(e)

Metode – gjennomføring

Det ble gjennomført nettbasert evaluering der svarprosenten er 16% (av de som aktivt følger kurset og deltar på laboratoriekurset). Dette er svært lavt. Evalueringen foretas etter at undervisningen er ferdig, men før eksamen. For KJEM/FARM110 vil det si i midten av mai. Studentene er da opptatt med å forberede seg til eksamen, og undertegnede mistenker at dette er grunnen til den lave deltakelsen på evalueringen. Evalueringen bør derfor gjennomføres tidligere i semesteret.

Oppsummering av innspill

62% av de som svarte på undersøkelsen har vært på mer enn 75% av forelesningene. Det er det samme som i V2017, da dette tallet var på 63%. Grunner til å ikke gå på forelesning er blant annet egenlæring og at det ikke passer. Studentene gir svært god tilbakemelding på forelesningene og rapporterer om stor klarhet (ca 75%) og stort engasjement (ca 70%) i fremstillingen, og om et relativt høyt læringsutbytte (ca 80%). Flertallet av studentene (75%) foretrekker en kombinasjon av tavle og lysark. De resterende 25% foretrekker tavle. Bruk av quiz (kahoot) er populært. Den nye tilnærmingen i bruk av quiz, som legger til rette for mer studentaktiv læring, har blitt godt mottatt.

Gjennomføringen av laboratoriekurset får relativt god kritikk av de som svarer. Studentene rapporter at de får god hjelp på laboratoriet og at øvelsene er godt forklart på forhånd. Læringsutbyttet er også her bra, men ikke så bra som det som ble oppgitt for forelesningene. De negative kommentarene går på at labjournalen tar altfor lang tid å gjennomføre og at laboratorieveilederne retter ulikt.

42% av studentene som har svart på undersøkelsen går ikke på kollokvier, men selv om bare et fåtall av studentene følger kollokviene, får kollokvielederne får stort sett god tilbakemelding.

Midtsemestereksamen blir stort sett oppfattet positivt. Studentene fremhever fordelene ved at en blir tvunget til jevnt arbeid gjennom semesteret, men at det er uheldig at det får store konsekvenser for den endelige karakteren hvis man ikke gjør det så bra på midtsemestereksamen. 46% svarer at de gjorde det dårligere enn forventet på midtsemestereksamen.

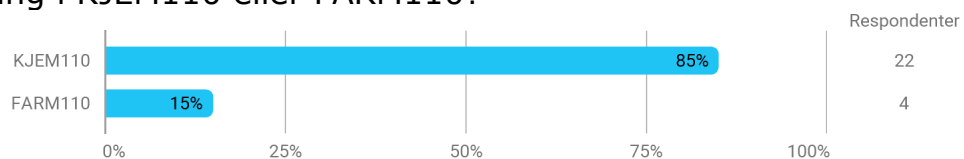
Ev. underveistiltak

Fremmøtet både på forelesningene og på kollokviene synker i løpet av semesteret. Men det er ikke unormalt på et kurs som dette. Fullstendige løsninger til alle oppgavene blir også lagt ut etter hver kollokvieuke. Dette er populært, men fremmer ikke behovet for å gå på kollokvier. Det bør vurderes om denne praksisen bør endres. Andre grunner er at bare obligatoriske aktiviteter blir prioritert eller at en er kommet på etterskudd og ser liten hensikt i å møte frem av den grunn.

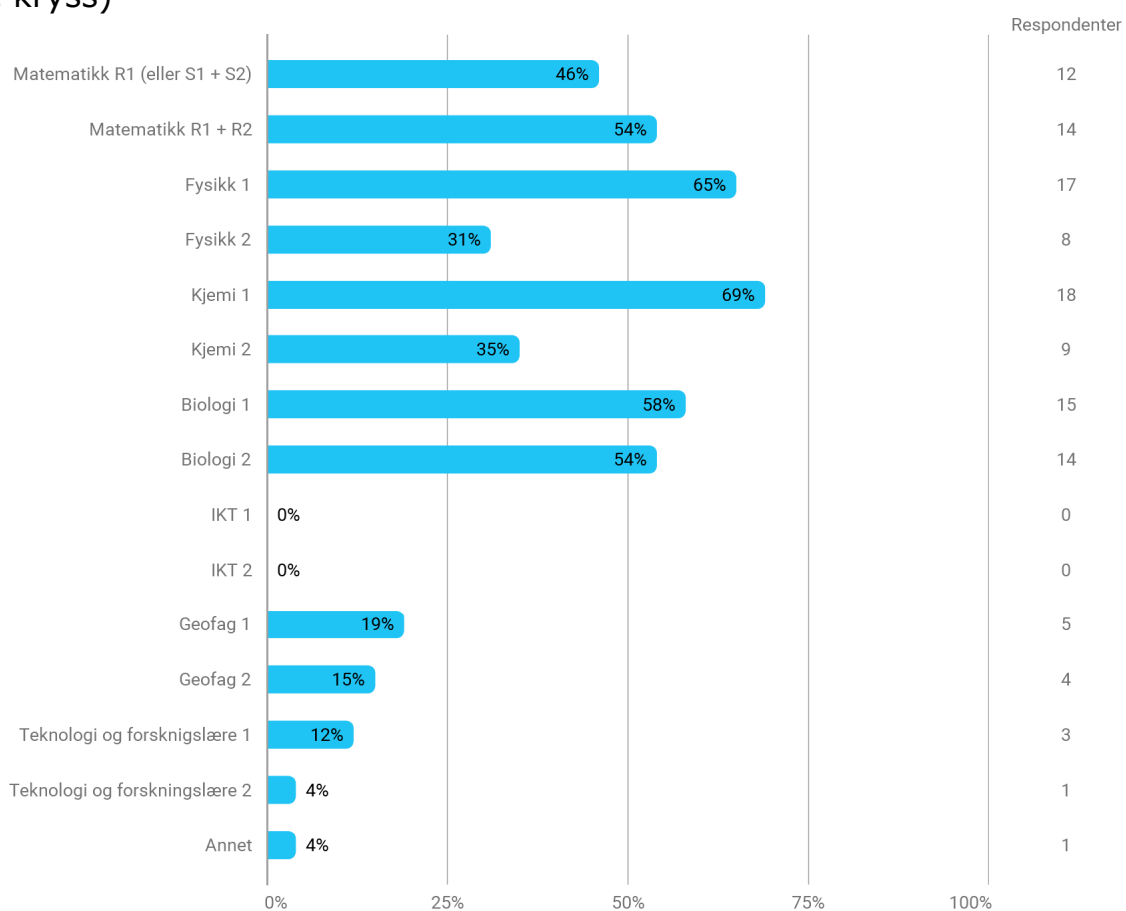
Faglærers samlede vurdering, inkl. forslag til forbedringstiltak

Studentene gir stort sett gode tilbakemeldinger på forelesninger, lab og kollokvier. Kombinasjonen av KJEM/FARM110 med andre emner med mye obligatorisk aktivitet, gir imidlertid stort arbeidspress. Mange av studentene har ingen eller liten erfaring med kjemisk laboratoriearbeid og oppfatter spesielt starten av kurset som svært arbeidskrevende. Eksamensresultatet i år viser også at avsluttende eksamen gir mye bedre resultat enn for midtsemestereksamen. Dette sammen med dalende interesse for kollokvieundervisningen kan tyde på at mange studenter ikke lykkes godt nok i startfasen av emnet. Det bør arbeides med å få flere studenter til å gå på kollokvier. Det ble innført en ny type quiz (kahoot) i forelesningene, som legger til rette for mer studentaktiv læring, og det har fungert bra. Den korte oppsummeringen av hvert kapittel som ble lagt ut på Mitt UiB i forkant av hver forelesning, for å gjøre det enklere for studentene å forberede seg, og har fått gode tilbakemeldinger. Flertallet av studentene foretrekker en kombinasjon av lysark og tavle på forelesningene. Tavleundervisning er populært, og undertegnede kommer til å øke andelen av tavlebruk neste gang kurset undervises.

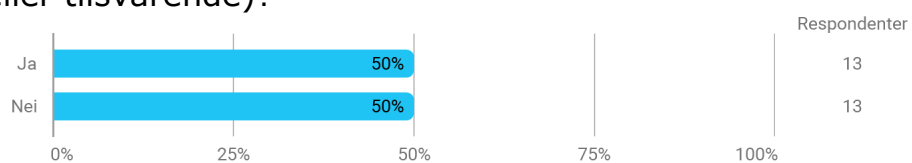
Følger du undervisning i KJEM110 eller FARM110?



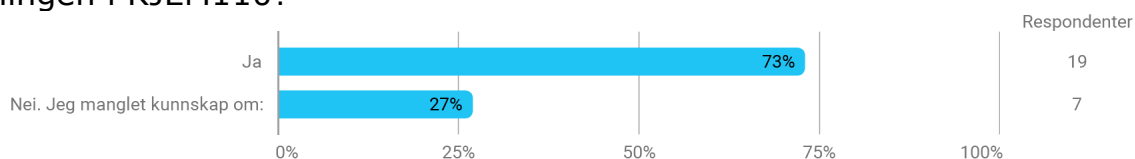
Hvilken naturfaglig bakgrunn har du fra videregående skole? (Her kan du sette flere kryss)



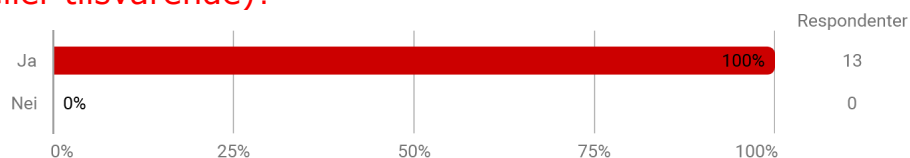
Har du tatt KJEM100 (eller tilsvarende)?



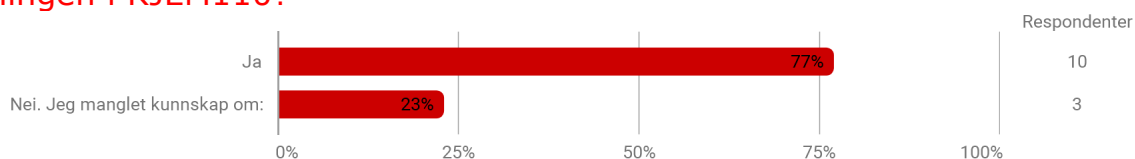
Mener du at du hadde tilstrekkelige forkunnskaper til å følge undervisningen i KJEM110?



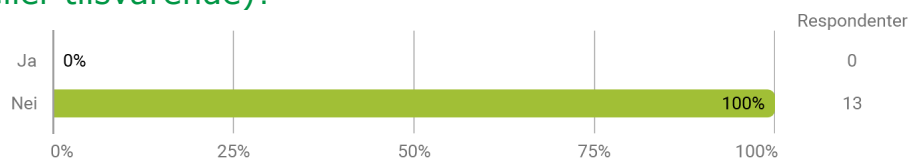
Har du tatt KJEM100 (eller tilsvarende)?



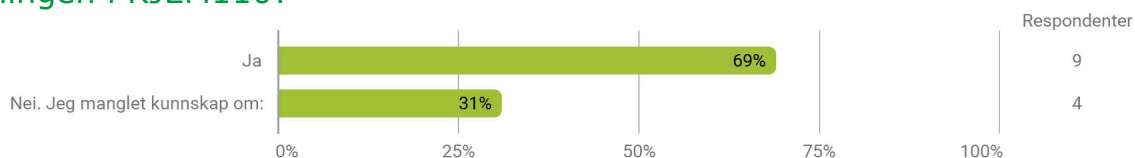
Mener du at du hadde tilstrekkelige forkunnskaper til å følge undervisningen i KJEM110?



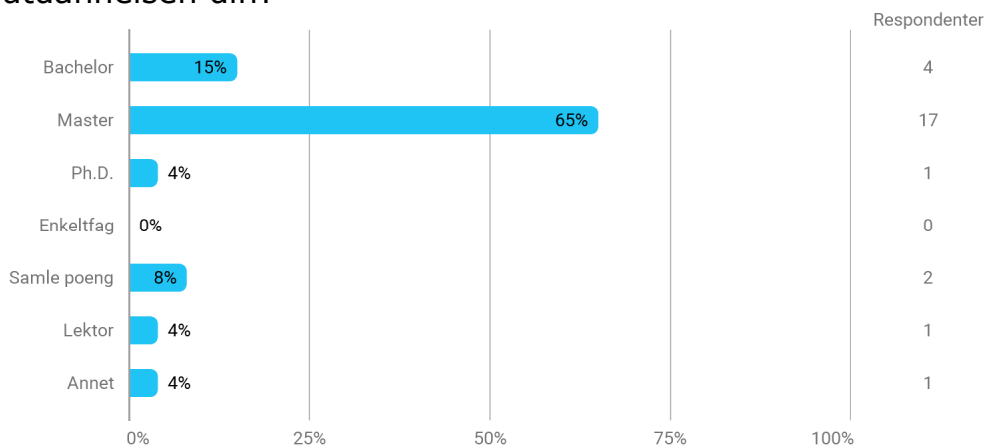
Har du tatt KJEM100 (eller tilsvarende)?



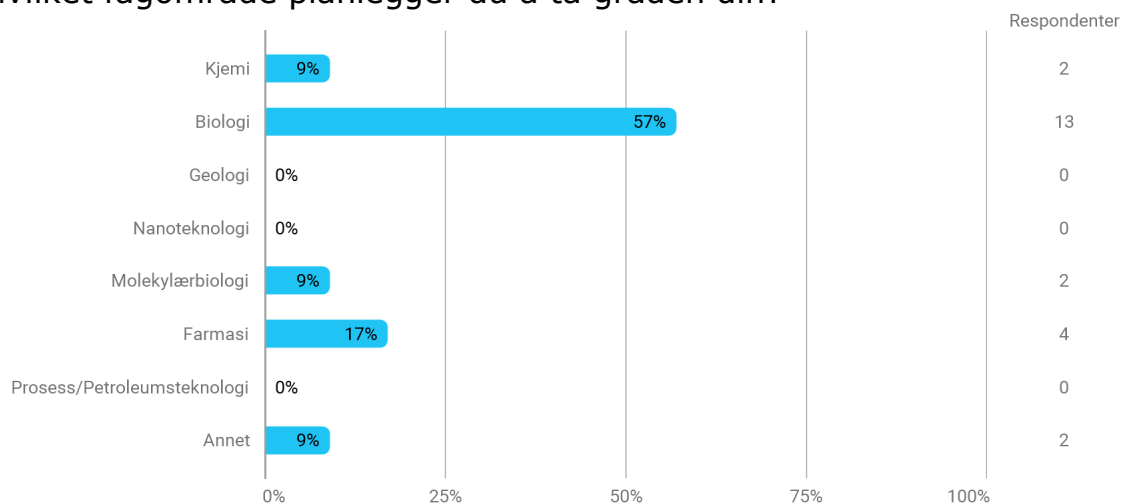
Mener du at du hadde tilstrekkelige forkunnskaper til å følge undervisningen i KJEM110?



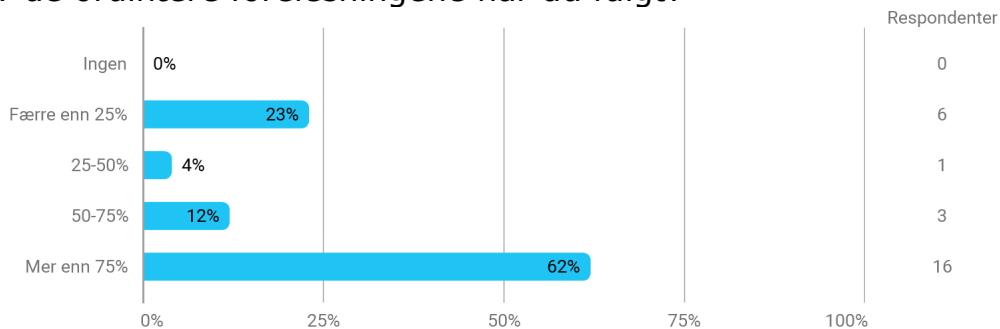
Hva er målet med utdannelsen din?



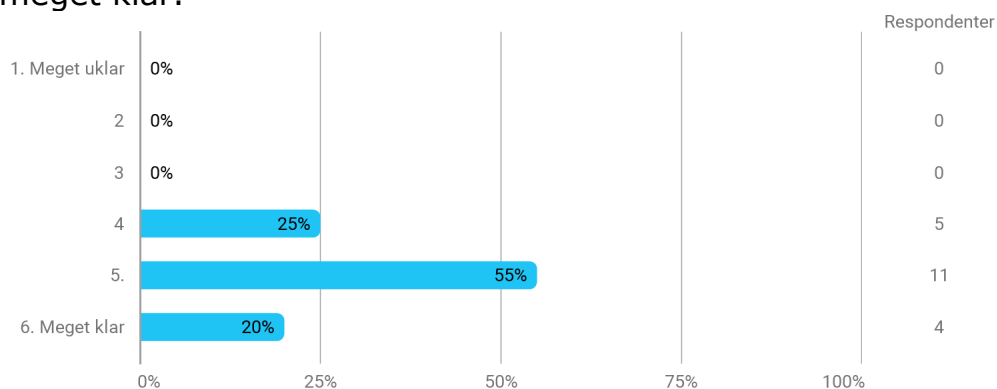
Innenfor hvilket fagområde planlegger du å ta graden din?



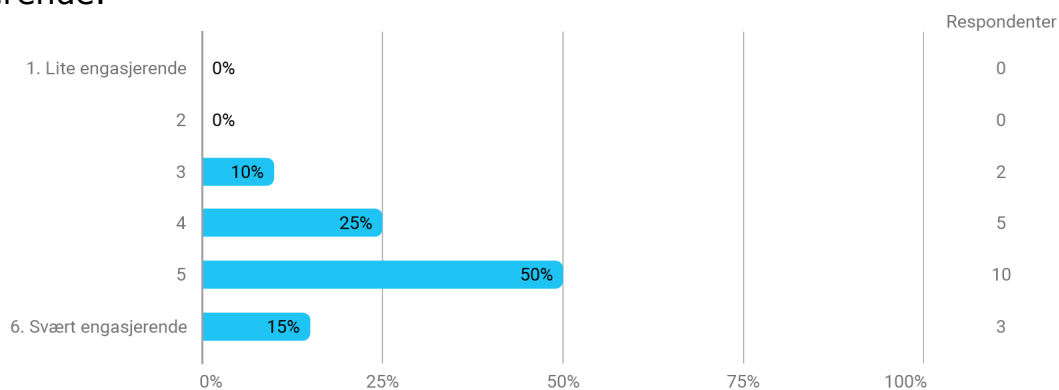
Hvor stor andel av de ordinære forelesningene har du fulgt?



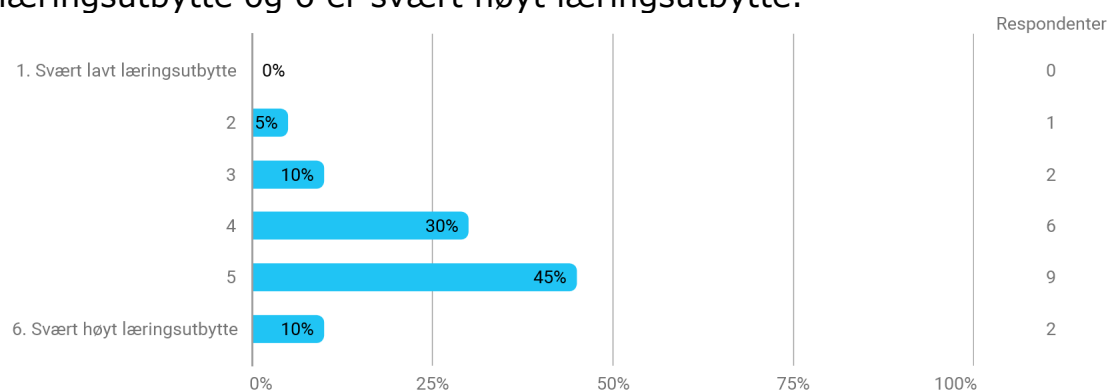
Klarhet i fremstillingen (forelesninger, KJEM/FARM110). 1 til 6, der 1 er meget uklar og 6 meget klar.



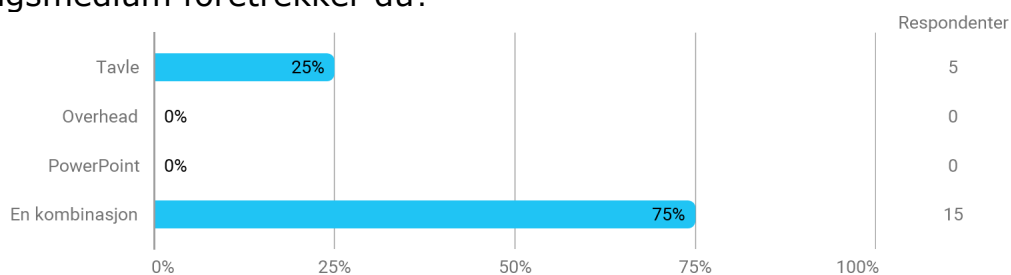
Engasjement i fremstillingen. 1 til 6, der 1 er lite engasjerende og 6 er svært engasjerende.



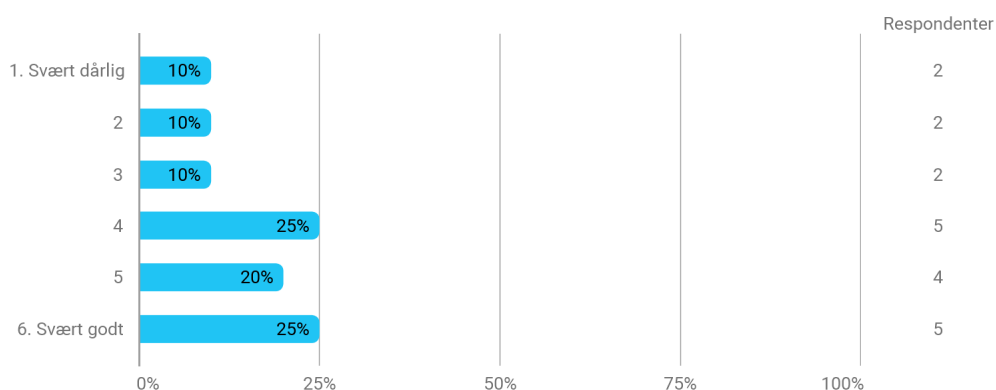
Hvordan har læringsutbyttet av forelesningene vært? 1 til 6, der 1 er svært lavt læringsutbytte og 6 er svært høyt læringsutbytte.



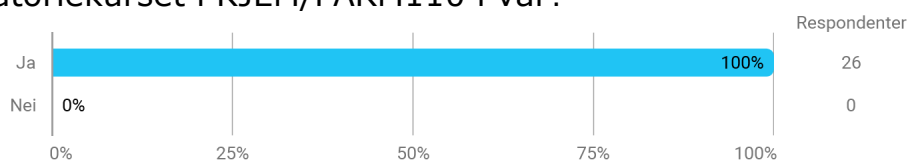
Hvilket forelesningsmedium foretrekker du?



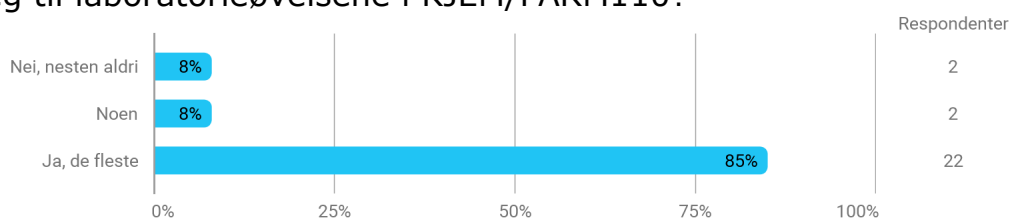
I forelesningene har det blitt brukt Kahoot. Hvordan synes du dette har fungert?



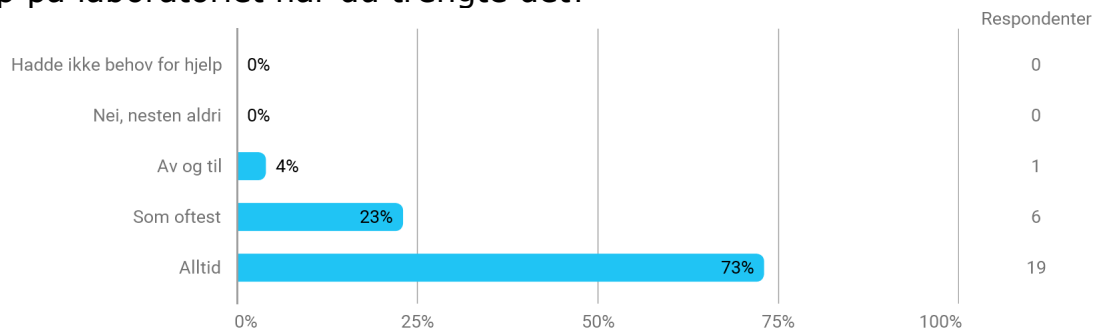
Har du deltatt på laboratoriekurset i KJEM/FARM110 i vår?



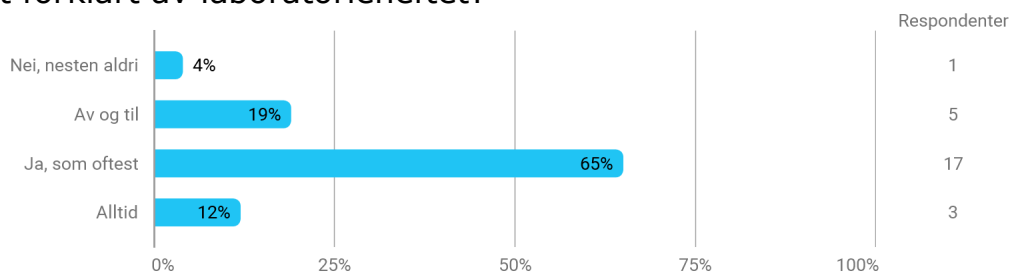
Forberedte du deg til laboratorieøvelsene i KJEM/FARM110?



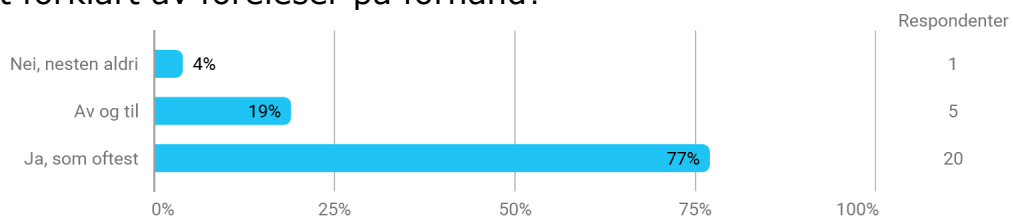
Fikk du hjelp på laboratoriet når du trengte det?



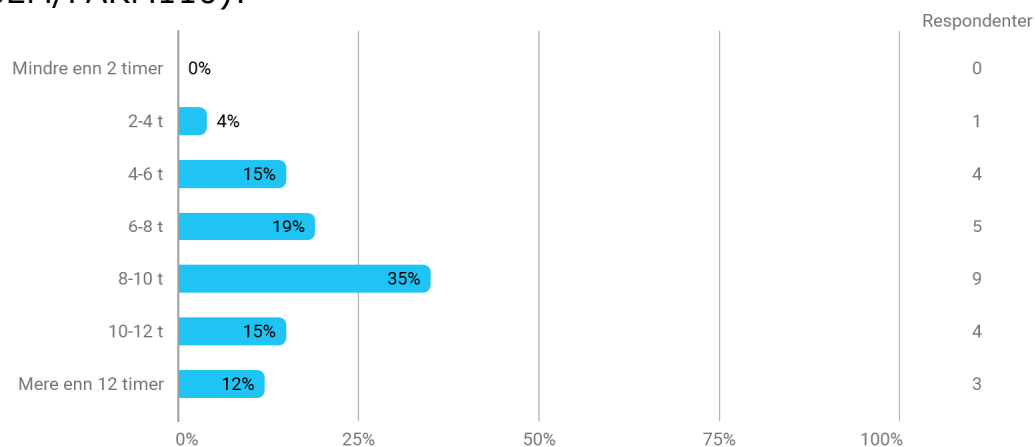
Ble øvelsene godt forklart av laboratorieheftet?



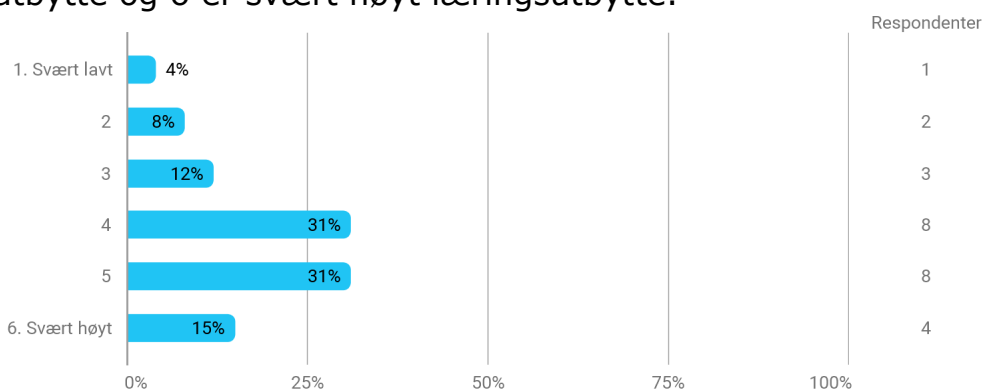
Ble øvelsene godt forklart av foreleser på forhånd?



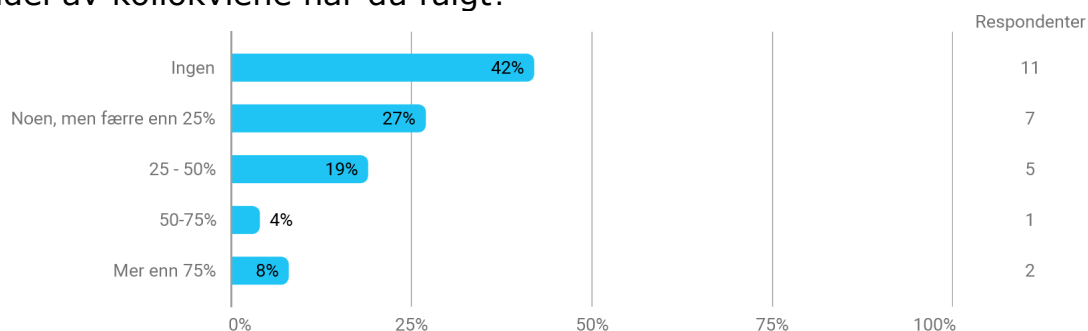
Hvor mange timer brukte du i snitt på å skrive labjournal for hver av labøvingene (KJEM/FARM110)?



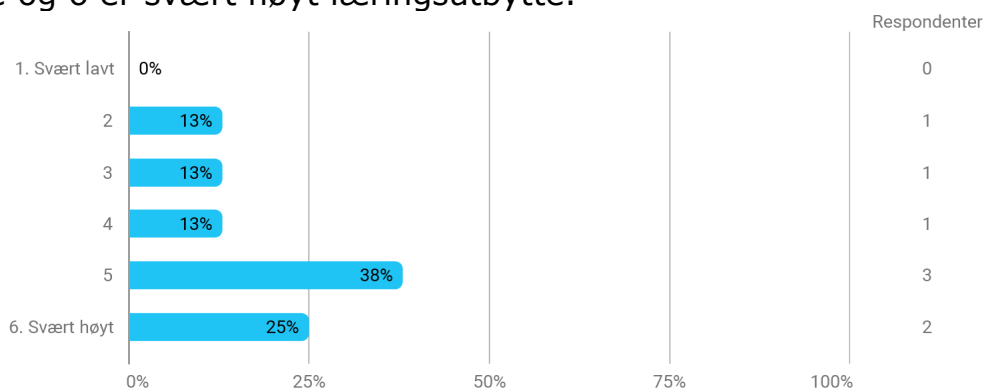
Hvordan har læringsutbyttet av laboratoriekurset vært? 1 til 6, der 1 er svært lavt læringsutbytte og 6 er svært høyt læringsutbytte.



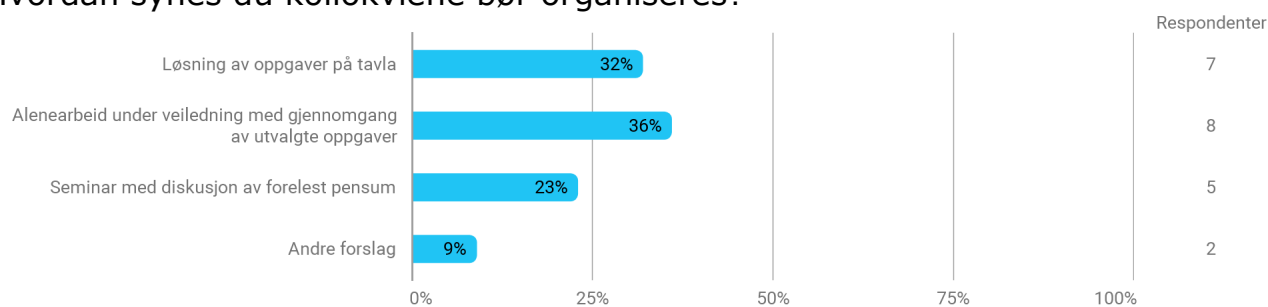
Hvor stor andel av kollokviene har du fulgt?



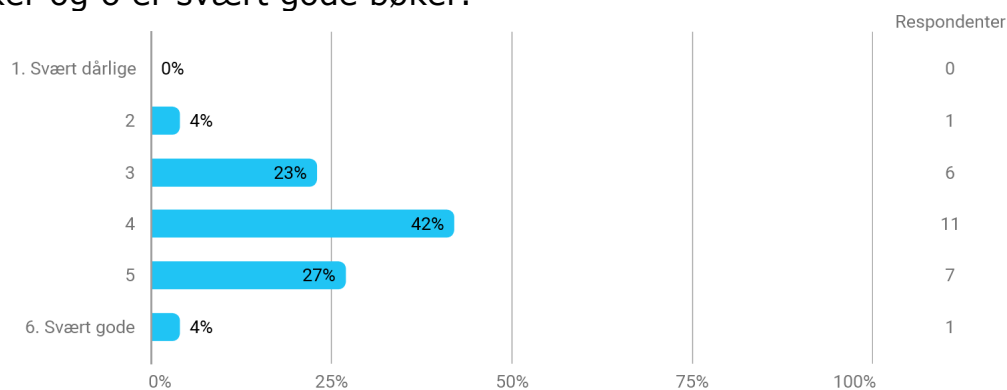
Hvordan har læringsutbyttet av kollokviene vært? 1 til 6, der 1 er svært lavt læringsutbytte og 6 er svært høyt læringsutbytte.



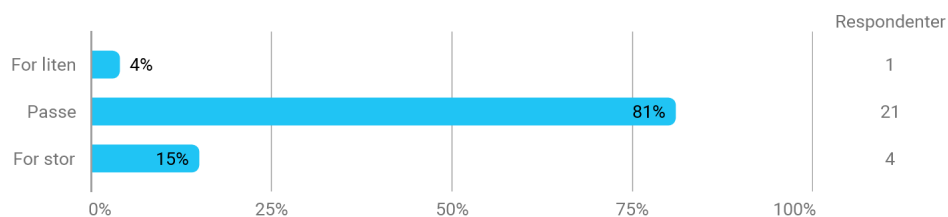
Hvordan synes du kollokviene bør organiseres?



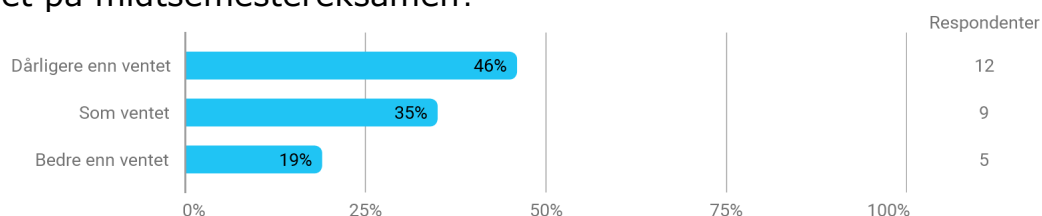
Hva synes du om læreboken/lærebøkene i KJEM/FARM110? 1 til 6 der 1 er svært dårlige bøker og 6 er svært gode bøker.



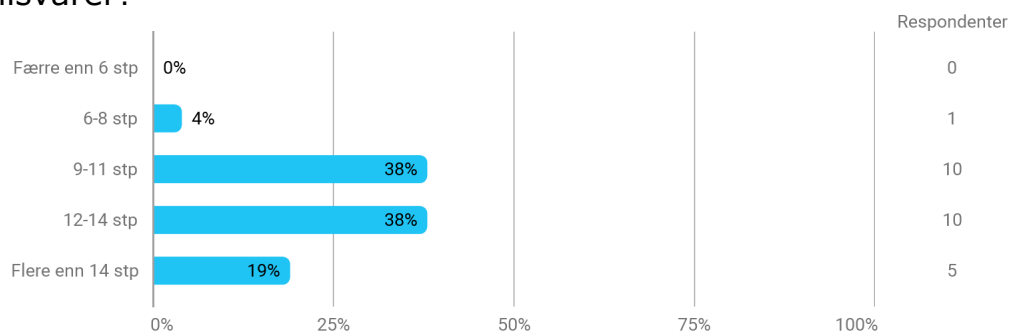
Hvordan synes du arbeidsmengden til midtsemestereksamen i KJEM/FARM110 var?



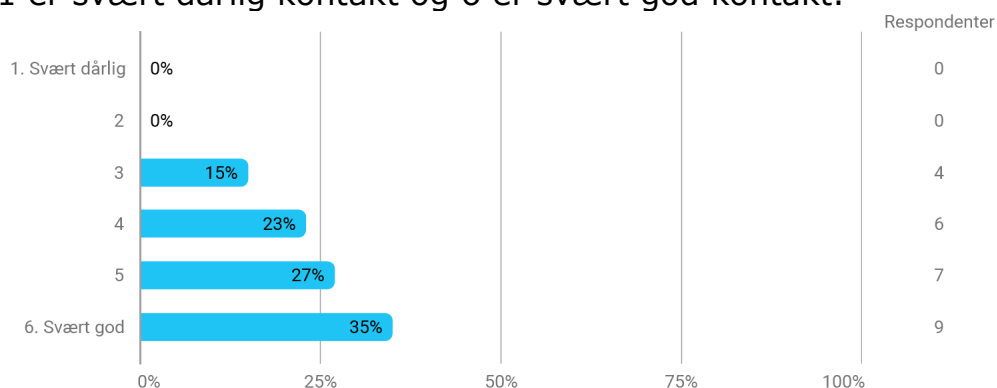
Hvordan gikk det på midtsemestereksamen?



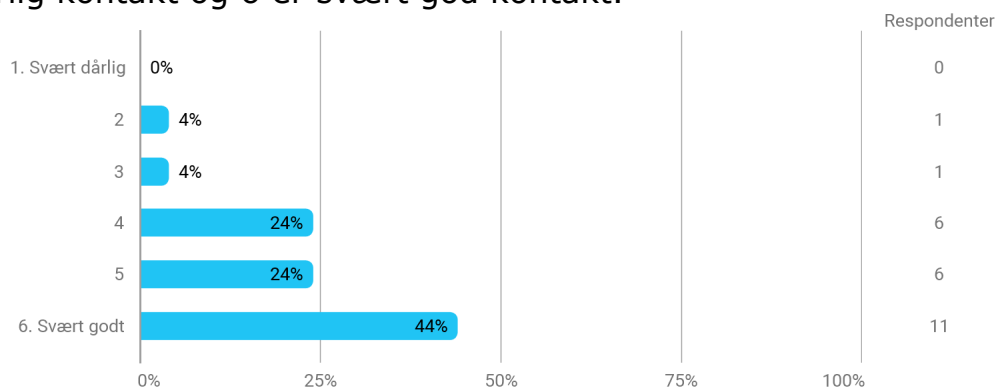
10 studiepoeng skal i snitt tilsvare ca. 13t arbeid (organisert undervisn. + egenaktivitet) pr. uke. Hvor mange studiepoeng mener du emnet KJEM/FARM110 tilsvarer?



Hvordan har kontakten med undervisningspersonalet i KJEM/FARM110 vært? 1 til 6, der 1 er svært dårlig kontakt og 6 er svært god kontakt.



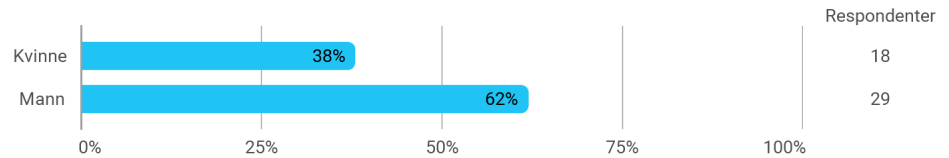
Hvordan har kontakten med medstudenter i KJEM/FARM110 vært? 1 til 6, der 1 er svært dårlig kontakt og 6 er svært god kontakt.



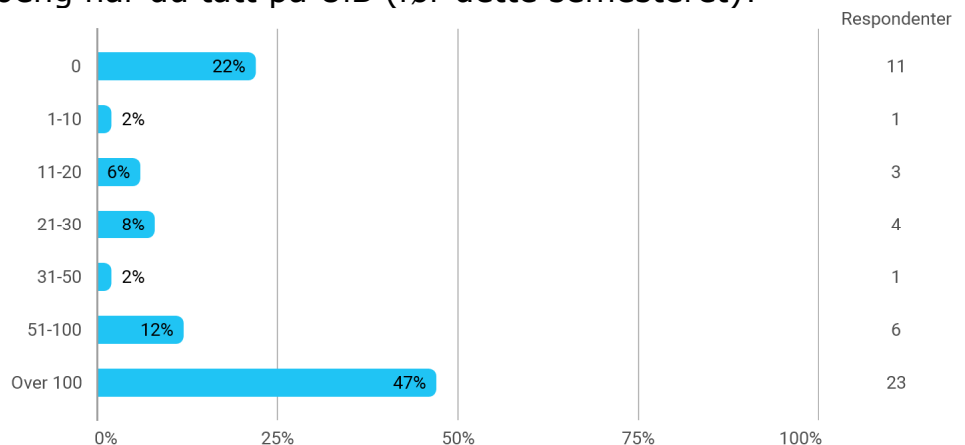
STAT110 studentevaluering høst 2018

Antall svar: 49 (av 218)

Kjønn?



Hvor mange studiepoeng har du tatt på UiB (før dette semesteret)?

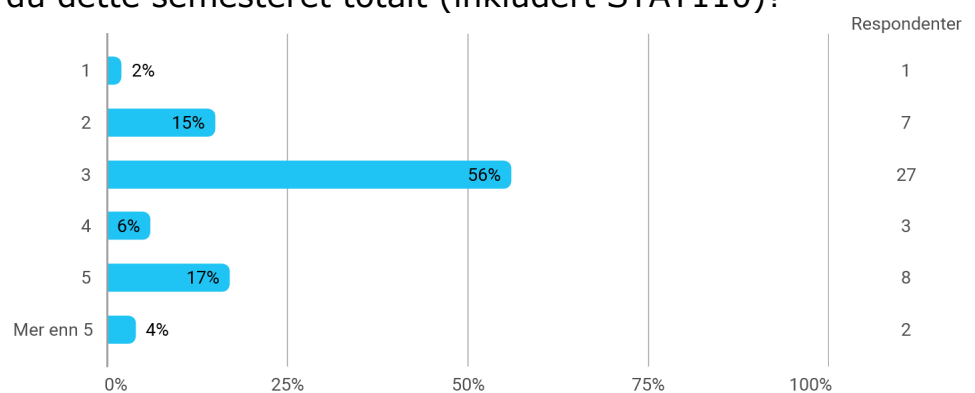


Hvilket studieprogram går du på?

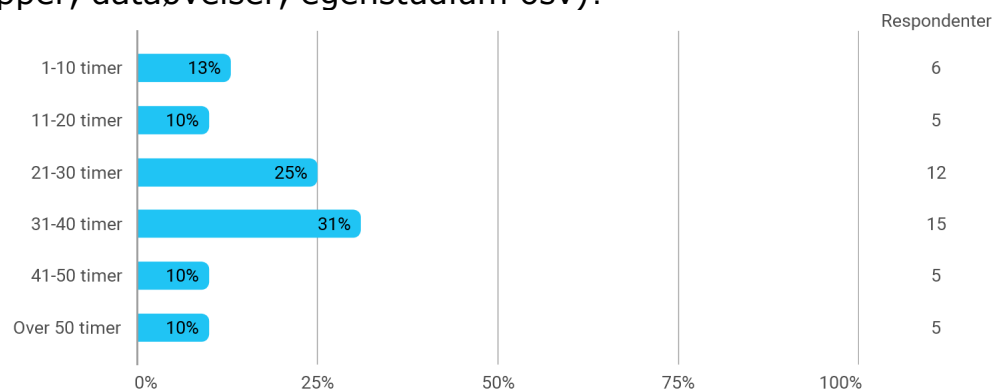
- bachelore
- Bioinformatikk
- Etterutdanning for lærere
- master samfunnsøkonomi
- Integrert lektorløp
- SILU
- bsc matte
- Aktuarfag
- Lektor i naturvitenskapelige fag
- Datavitenskap
- Matematikk for industri og teknologi
- Geofysikk
- Poststudium
- Integrert Lektor
- Lektorutdanning i biologi og matte
- Aktuar
- lektor i naturvitenskap og matematikk
- Årsstudie for naturvitenskapelige fag
- Lektor
- Postmaster
- Lektor
- Aktuar
- Nanoteknologi
- Jeg tar enkeltemner, går ikke på et spesielt studieprogram.
- Integrert master i havbruk og sjømat
- Fysikk
- BAMN-DVIT
- Bachelor i Biologi
- Mattek
- Informatikk: Datateknologi

- Datavitenskap
- Integrert lektorutdanning
- Integrert Lektorutdanning
- Nanoteknologi, bachelor
- Integrert lektorutdanning
- Matematikk for industri og teknologi
- Årsstudium
- Bachelor i Datasikkerhet
- datatryggleik
- Havteknologi
- Lektor i realfag
- Lektor
- imø
- Årsstudium naturvitenskapelige fag
- Lektor i naturvitenskapelige fag
- Fysikk

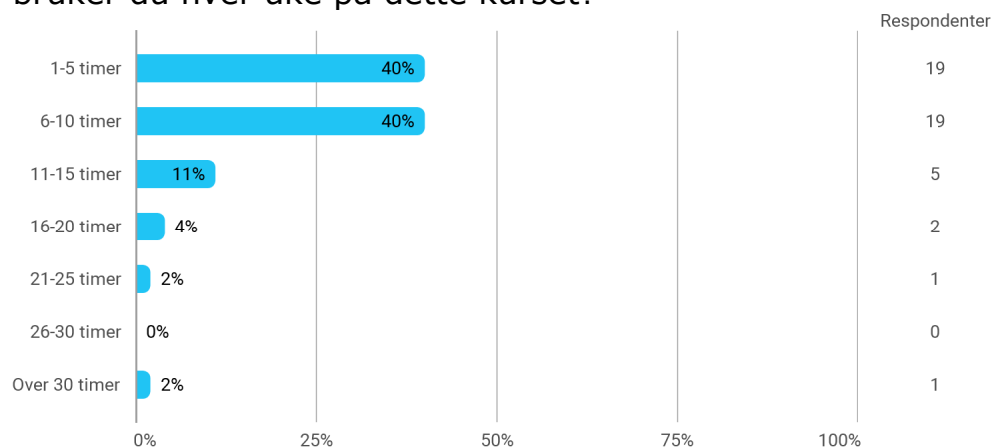
Hvor mange fag tar du dette semesteret totalt (inkludert STAT110)?



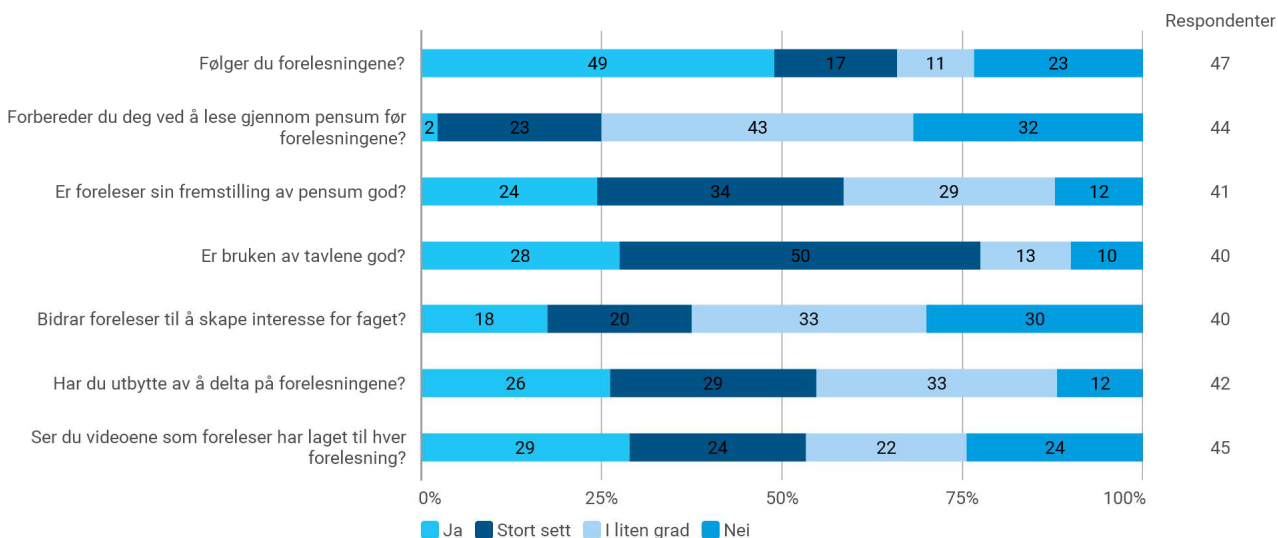
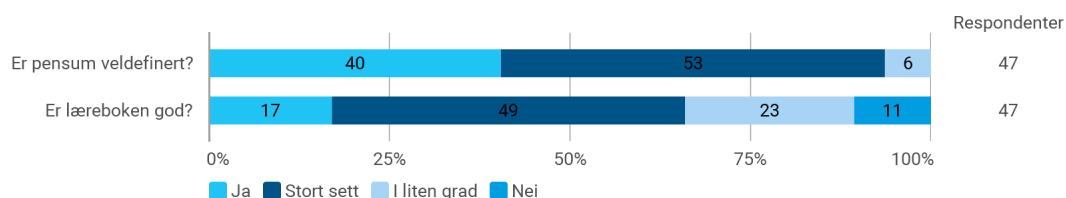
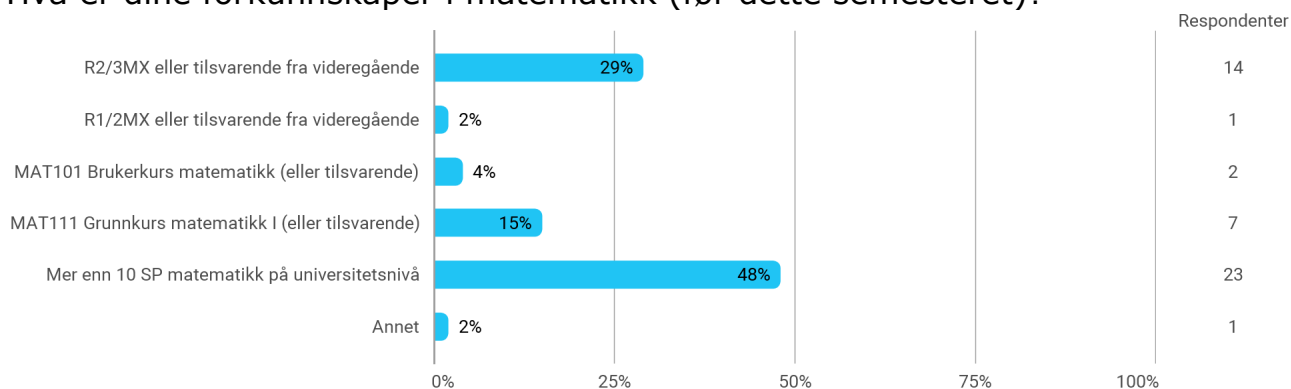
Hvor mange timer bruker du gjennomsnittlig på studier hver uke (inkludert forelesninger, grupper, dataøvelser, egenstudium osv)?



Hvor mange timer bruker du hver uke på dette kurset?



Hva er dine forkunnskaper i matematikk (før dette semesteret)?



Hva synes du om videoløsningene?

- viktige og hjelpsom
- Se forrige kommentar
- Videoløsningen er gode, kommer til å bruke de mye fremover før eksamen.
- Velig bra! Veldig bra online materiale generelt på dette kurset.
- Har ikke brukt dem.
- De er bra. Lærer veldig mye av videoene
- Helt konge.
- God oppsummering
- meget gode og konsise.
- Jeg synes de er veldig gode, både når det gjelder forberedelse til forelesning og løsning av oppgavesettene.
- Nyttig, men den kunne vore enda lenger og meir grundig. Fint når det er link til NTNU for meir grundig gjennomgang. Det kunne det vore oftere.
- Utrolig fornøyd med dette. Bruker det mye
- Veldig hjelpsomme hvis man ikke har forstått noe!
- Veldig bra! De har hjulpet meg mye :)
- Veldig bra
- bra
- Gode.
- Bruker de ikke
- De er veldig gode og forklarer i dybde hva du skal gjøre slik at du ikke lenger lur på noe.
- Utrolig bra, liker at jeg kan se de om igjen
- Bra!
- Har ikke brukt dem, så kan ikke uttale meg.
- Sett bort fra at jeg ikke får alle til å fungere synes jeg det er veldig praktisk og lærerikt
- Grundig og god gjennomgang, hjelper meg som ikke følger forelesning å forstå pensum bedre.
- Det jeg har sett er veldig bra. Forklarer mye bedre enn forelesningene har klart. Blir flittig brukt opp mot eksamen
- De jeg har sett virker hjelpsom
- Greie
- veldig gode
- Utrolig kjekt å ha videoene i tillegg til boka. De er for meg en fin måte å oppsummere og repetere underveis. Har stor tro på at de fungerer som forberedelse til forelesninger også, selv om jeg ikke har hatt anledning til å delta på disse.
- Det fungerer bra.

