Appendix A: Students (ENGLISH)

Question S1: Are you male or female?

- (1) 🛛 Male
- (3) Prefer not to declare

Question S2: How old are you?

- (1) Under 20
- (2) 21-25
- (3) 26-30
- (4) 🛛 31-35
- (5) 🛛 🖵 Over 35

Question S3: Which of these educational institutions are you studying at?

- (1) 🛛 UiB
- (2) 🛛 UNIS
- (3) 🛛 NTNU
- (4) 🛛 UiT
- (5) 🛛 🗖 NMBU
- (6) 🛛 🖬 HiT
- (7) 🛛 UiO
- (8) 🔲 UiA
- (9) 🛛 UiN
- (10) Other institution

Question S4: At what level are you studying now?

- (1) One-year study or individual courses
- (2) B.Sc. (Bachelors)
- (3) I M.Sc. (Masters)
- (4) Ph.D. (Doctorate)

Question S5: Have you been abroad or plan to study abroad during your studies?

- (1) **U** Yes
- (2) 🛛 🗖 No

Question S6: How important were the following reasons for your decision to study?

		1. not at all	2.	3.	4. moderatly	5.	6.	7. very
A:	The desire to work within a biological profession / field	(1) 🗖	(2)	(3)	(4)	(5) 🗖	(6) 🗖	(7)
В:	To have enough money to buy everything I want	(1) 🗖	(2)	(3)	(4)	(5) 🗖	(6) 🗖	(7)
C:	To work for the betterment of society	(1) 🗖	(2)	(3)	(4)	(5)	(6)	(7)
D:	To be rich	(1)	(2)	(3)	(4)	(5)	(6)	(7)
E:	To work to make the world a better place	(1) 🗖	(2)	(3)	(4)	(5)	(6)	(7)
F:	Friends who studied biology	(1)	(2)	(3) 🗖	(4)	(5)	(6) 🗖	(7)
G:	Interest in the subject	(1)	(2)	(3)	(4)	(5) 🗖	(6)	(7)

Question S7: To what extent do you find that your institution facilitates you as a student? Please consider your current situation

		1. Very little	2. Little	3. Neutral	4. Well	5. Very well	6. Not relevant to me
A:	Access to meeting rooms outside of lectures	(1) 🗖	(2)	(3)	(4)	(5) 🗖	(6) 🗖
B:	Access to the canteen and / or social areas	(1)	(2)	(3)	(4) 🗖	(5)	(6) 🗖
C:	Access to reading rooms	(1)	(2)	(3)	(4)	(5)	(6) 🗖
D:	Access to computer labs	(1)	(2)	(3)	(4)	(5) 🗖	(6) 🗖

		1. Very little	2. Little	3. Neutral	4. Well	5. Very well	6. Not relevant to me
E:	Availability of lecturers to answer questions	(1)	(2)	(3)	(4)	(5) 🗖	(6) 🗖
F:	Invites to organised study groups	(1)	(2)	(3)	(4)	(5) 🗖	(6) 🗖
G:	Adequate access to laboratories outside of lectures	(1)	(2)	(3)	(4)	(5)	(6) 🗖

Question S8: To what extent do you consider the biology education to ...

		1. Very little	2. Little	3. Neutral	4. Well	5. Very well
A:	Be engaging	(1)	(2)	(3)	(4)	(5)
B:	Be academically challenging	(1) 🗖	(2)	(3)	(4)	(5)
C:	Consists of topics that integrate well	(1) 🗖	(2)	(3)	(4)	(5) 🗖
D:	Have skilled teachers	(1)	(2)	(3)	(4)	(5)

Question S9: How much do you agree with the following statements about lecturers in your courses?

		1. Strongly disagree	2. Disagree	3. Slitghtly disagree	4. Neutral	5. Slightly agree	6. Agree	7. Strongly agree
A :	Lecturers facilitate questions /suggestions from students in teaching sessions	(1)	(2)	(3)	(4)	(5)	(6)	(7)
B:	Lecturers combine theory with practical	(1)	(2)	(3)	(4)	(5)	(6)	(7)

		1. Strongly disagree	2. Disagree	3. Slitghtly disagree	4. Neutral	5. Slightly agree	6. Agree	7. Strongly agree
	professional tasks in their teaching							
C:	Lecturers facilitate discussions between students in teaching sessions	(1) 🗖	(2)	(3) 🗖	(4)	(5) 🗖	(6) 🗖	(7)
D:	Comments / suggestions from students feedback into the teaching	(1) 🗖	(2)	(3)	(4)	(5)	(6) 🗖	(7) 🗖

Question S10: Below are some statements that may describe your overall student

experience

We would like to know more about how you experience your lecturers.

Your answers are anonymous.

		1. Strongly disagree	2.	3.	4. Neutral	5.	6.	7. Strongly agree
A :	I feel that my lecturers provides me with choices and opportunities	(1)	(2)	(3)	(4)	(5)	(6) 🗖	(7)
B:	I feel understood by my lecturers	(1) 🗖	(2)	(3)	(4)	(5) 🗖	(6) 🗖	(7)
C:	My lecturers conveys confidence in my ability to do well in the subjects	(1) 🗖	(2)	(3) 🗖	(4)	(5)	(6) 🗖	(7)
D:	My lecturers encourage me to ask questions	(1)	(2)	(3)	(4)	(5)	(6)	(7)

		1. Strongly disagree	2.	3.	4. Neutral	5.	6.	7. Strongly agree
E:	My lecturers listen to how I like to do things	(1)	(2)	(3)	(4)	(5)	(6)	(7)
F:	My lecturers tries to understand how I see things before suggesting a new way to do things	(1) 🗖	(2)	(3)	(4)	(5)	(6) 🗖	(7)

Question S11: During an average week, approximately how many hours do you spend on the following activities

- A: Organised course-
- B: Self-study _____
- C: Collaboration and academic discussions _____ with other students

Question S12: Are you studying full time or part time?

- (1) I am a full-time student
- (2) I am a part-time student

Question S13: To what extent do you learn from the following activities

		1. Extremely 2 little	2. Very little	3. Quite little	4. Neutral	5. Quite well	6. Very well	7. Extremely well
A:	Lecture with black /whiteboard or powerpoint	(1)	(2)	(3)	(4)	(5) 🗖	(6) 🗖	(7)
B:	Self-study / reading or doing exercises by myself	(1)	(2)	(3)	(4)	(5) 🗖	(6)	(7)
C:	Group work / group discussions	(1)	(2)	(3)	(4)	(5)	(6) 🗖	(7)

Question S14: Do you usually prepare for lectures?

- (1) **U** Yes
- (2) 🛛 No

Question S15: When you started studying, how easy or difficult did you find the following?

		1. Extremely difficult	2. Very difficult	3. Quite difficult	4. Neutral	5. Quite easy	6. Very easy	7. Extremely easy
A:	Understanding the textbooks	(1) 🗖	(2)	(3)	(4)	(5)	(6) 🗖	(7)
B:	Familiarising with subject matter	(1) 🗖	(2)	(3)	(4)	(5)	(6)	(7)
C:	Learning good study techniques	(1) 🗖	(2)	(3)	(4)	(5)	(6)	(7)
D:	Understanding how different courses fit togheter	(1) 🗖	(2)	(3)	(4)	(5)	(6) 🗖	(7)

Question S16: How much effort was needed to master the following in your biology studies?

		1. Extremely 2 little	2. Very little	3. Quite little	4. Neutral	5. Quite much	6. Very much	7. Extremely much
A:	Written assignements	(1)	(2)	(3) 🗖	(4)	(5)	(6) 🗖	(7)
B:	Reading the curricullum	(1)	(2)	(3)	(4)	(5)	(6) 🗖	(7)
C:	Understanding terminology	(1)	(2)	(3)	(4)	(5) 🗖	(6) 🗖	(7)

Question S17: Please comment here on the effort you felt was needed in other areas of your biology studies

Question S18: I will participate in biology courses

		1. Not at all true	2.	3.	4. Somewhat true	5.	6.	7. Very true
A :	Because it is a good way to improve my understanding of biology	(1) 🗖	(2)	(3)	(4)	(5)	(6) 🗖	(7)
В:	Because others may think badly of me if I do not	(1)	(2)	(3)	(4)	(5)	(6) 🗖	(7)
C:	Because I feel proud of myself if I do well in biology	(1) 🗖	(2)	(3)	(4)	(5)	(6)	(7)

		1. Not at all true	2.	3.	4. Somewhat true	5.	6.	7. Very true
D:	Because a solid understanding of biology is important for me	(1) 🗖	(2)	(3)	(4)	(5)	(6) 🗖	(7)

Question S19: I am likely to follow the lecturers suggestions for studying biology

		1. Not at all true	2.	3.	4. Somewhat true	5.	6.	7. Very true
A:	Because I would get a bad grade if I didn't do what the lecturers suggest		(2)	(3)	(4)	(5)	(6) 🗖	(7)
В:	Because I'm worried that I'm not going to perform well in the course	(1) 🗖	(2)	(3)	(4)	(5)	(6) 🗖	(7)
C:	Because it is easier to follow the lecturers suggestions than come up with my own study strategies	(1) 🗖	(2)	(3)	(4)	(5)	(6)	(7) 🗖
D:	Because I think lecturers seems to have insight about how to learn the material	(1)	(2)	(3)	(4)	(5)	(6) 🗖	(7)

		1. Not at all true	2.	3.	4. Somewhat true	5.	6.	7. Very true
A:	Because it is interesting to learn more about basic biology	(1)	(2)	(3)	(4)	(5)	(6)	(7)
В:	Because it is a challenge to really understand how to solve biological problems	(1)	(2)	(3)	(4)	(5)	(6)	(7)
C:	Because a good grade in biology will look good on my diploma/degree	(1)	(2)	(3)	(4)	(5)	(6) 🗖	(7)
D:	Because I want other people to see that I'm intelligent	(1) 🗖	(2)	(3)	(4)	(5)	(6)	(7)

Question S20: The reason that I will work to expand my knowledge of biology is

Question S21: Below are some statements. Please tick the most appropriate with regard to your learning in biology.

		1. Not at all true	2.	3.	4. Somewhat true	5.	6.	7. Very true
A:	I feel confident in my abilities to learn biology	(1) 🗖	(2)	(3)	(4)	(5)	(6)	(7)
В:	I am capable of learning the material in this course	(1) 🗖	(2)	(3)	(4)	(5)	(6)	(7)

		1. Not at all true	2.	3.	4. Somewhat true	5.	6.	7. Very true
C:	I am able to achieve my goals in this course	(1) 🗖	(2)	(3)	(4) 🗖	(5)	(6) 🗖	(7)
D:	I am able to meet challenges to perform well in this course	(1)	(2)	(3)	(4)	(5)	(6)	(7)

Question S22: To what extent to you think the following feedback might be useful for your learing?

		1. Extremely little	2. Very little	3. Quite little	4. Neutral	5. Quite well	6. Very well	7. Extremely well
A:	Grades	(1)	(2)	(3)	(4)	(5)	(6)	(7)
B:	Individual written feedback on assignments (few sentences) from lecturer / teaching assistant	(1)	(2)	(3)	(4)	(5)	(6)	(7)
C:	Individual feedback from other students	(1)	(2)	(3)	(4)	(5)	(6) 🗖	(7) 🗖
D:	General feedback to the student group from the lecturer	(1) 🗖	(2)	(3)	(4)	(5) 🗖	(6) 🗖	(7)
E:	Conversations with lecturers / teaching assistants	(1)	(2)	(3)	(4)	(5)	(6) 🗖	(7)

		1. Never	2. Rarely	3. Very rarely	4. Sometimes	5. Often	6. Very often	7. Always
A :	Discussion groups / study groups which are arranged through campus	(1)	(2)	(3)	(4)	(5)	(6) 🗖	(7)
B:	Reading together with fellow students	(1)	(2)	(3)	(4)	(5) 🗖	(6) 🗖	(7)
C:	Discussing the curriculum in canteen or other social room	(1) 🗖	(2)	(3)	(4)	(5)	(6) 🗖	(7) 🗖
D:	Cooperating on academic matters on Facebook or other social websites	(1) 🗖	(2)	(3)	(4)	(5)	(6) 🗖	(7)
E:	Providing feedback on written work to fellow students	(1)	(2)	(3)	(4)	(5)	(6) 🗖	(7)

Question S24: What do you think of the following statements?

		1. Strongly disagree	. Disagree	3. Slightly disagree	4. Neutral	5. Slightly agree	6. Agree	7. Strongly agree
A :	I've never plagiarized in any of my written assignments in my courses	(1)	(2)	(3)	(4)	(5) 🗖	(6) 🗖	(7)
В:	Sometimes it's okay to plagiarize because of time pressures or the need to submit compulsory assignments	(1)	(2)	(3)	(4)	(5) 🗖	(6)	(7)

Question S25: To what extent do you feel that your efforts at studying are valued (appreciated and noticed) by the following groups

		1. Extremely 2 little	. Very little	3. Quite little	4. Neutral	5. Quite well	6. Very well	7. Extremely well
A:	Lecturers	(1) 🗖	(2)	(3)	(4)	(5)	(6)	(7)
B:	Teaching assistants / technicians	(1)	(2)	(3)	(4)	(5)	(6) 🗖	(7)
C:	Classmates	(1)	(2)	(3)	(4)	(5)	(6) 🗖	(7)

Question S26: Below are some statements. Please tick how true the statements are for you

		1. Not at all true	2.	3.	4. Neutral	5.	6.	7. Very true
A:	I like the people I interact with in my biology studies	(1)	(2)	(3)	(4)	(5)	(6)	(7)
B:	People in biology courses care about me	(1)	(2)	(3)	(4)	(5)	(6)	(7)

Question S27: To what extent do you think laboratory courses help with the learning

outcomes listed below?

Please tick what best matches your opinion even if you shall not take laboratory courses this semester

		1. Very little	2. Little	3. Neutral	4. Well	5. Very well	No experience
A:	General laboratory skills, microscopy, pipetting, etc.	(1)	(2)	(3)	(4)	(5)	(6) 🗖

		1. Very little	2. Little	3. Neutral	4. Well	5. Very well	No experience
B:	Practical skills in subject-specific laboratory methods (analytical procedures and equipment used in the subject)	(1) 🗖	(2)	(3)	(4)	(5)	(6)
C:	Understanding of the subject methods and data	(1) 🗖	(2)	(3)	(4)	(5)	(6)
D:	Understanding of the subject theory	(1)	(2)	(3)	(4)	(5)	(6)
E:	Ability to use knowledge in new contexts	(1) 🗖	(2)	(3)	(4)	(5)	(6) 🗖
F:	Understanding of the subject's practical relevance and application	(1) 🗖	(2)	(3)	(4)	(5) 🗖	(6) 🗖

Question S28: To what extent do you think field courses / expeditions help with the learning outcomes listed below?

Please tick what best matches your experience opinion even if you shall not take any field courses / expeditions this semester

		1. Very little	2. Little	3. Neutral	4. Well	5. Very well	No experience
A:	General field / cruise skills (biological work outdoors)	(1)	(2)	(3)	(4)	(5)	(6) 🗖
B:	Practical skills in specific professional fields/research vessel	(1) 🗖	(2)	(3)	(4)	(5)	(6) 🗖

		1. Very little	2. Little	3. Neutral	4. Well	5. Very well	No experience
	methods (analytical procedures and equipment used in the subject)						
C:	Understanding of the subject methods and data	(1)	(2)	(3)	(4)	(5) 🗖	(6)
D:	Understanding of the subject theory	(1)	(2)	(3)	(4)	(5)	(6)
E:	Ability to use knowledge in new contexts	(1)	(2)	(3)	(4)	(5) 🗖	(6)
F:	Understanding of the subject's practical relevance and application	(1)	(2)	(3)	(4)	(5) 🗖	(6) 🗖
G:	Knowledge and understanding of patterns and processes in nature	(1)	(2)	(3)	(4)	(5) 🗖	(6)

Question S29: To what extent do you agree that you develop the following skills through education in biology?

	1. Strongly disagree	^y 2. Disgree	3. Slightly disagree	4. Neutral	5. Slightly agree	6. Agree	7. Strongly agree	
A: Collaborative	skills (1)	(2)	(3)	(4)	(5)	(6) 🗖	(7)	
B: Writing and recompetence (U (1)	(2)	(3)	(4)	(5) 🗖	(6)	(7)	
C: Quantitative competence ((1) 🗖	(2)	(3)	(4)	(5) 🗖	(6) 🗖	(7)	

		1. Strongly disagree	2. Disgree	3. Slightly disagree	4. Neutral	5. Slightly agree	6. Agree	7. Strongly agree
	interpret data /numeracy)							
D:	Critical thinking	(1)	(2)	(3)	(4)	(5)	(6)	(7)

Question S30: To what extent do you think practice /internship in research, the public sector and / or industry give biology students the following learning outcomes?

We are interested in knowing what you think about the following statements, regardless of whether you have experience with practice /internship.

		1. Strongly disagree	2. Disagree	3. Slightly disagree	4. Neutral	5. Quite agree	6. Agree	7. Strongly agree
А:	Practice provides better and more relevant understanding of theoretical knowledge.	(1)	(2)	(3)	(4)	(5)	(6) 🗖	(7)
В:	Practice makes students better prepared to meet the labour market.	(1)	(2)	(3)	(4)	(5) 🗖	(6) 🗖	(7)
C:	Practice wil come at the expense of other important learning at the university / college	(1)	(2)	(3)	(4)	(5) 🗖	(6) 🗖	(7)
D:	Practice provides important skills we do not have the opportunity to aqcuire at the university / college	(1)	(2)	(3)	(4)	(5)	(6) 🗖	(7)

		1. Strongly	2. Disagree	3. Slightly	4. Neutral	5. Quite	6. Agree	7. Strongly
		disagree	2. Disagree	disagree	4. Neuliai	agree	0. Agree	agree
E:	Practice makes							
	biology students more	(1)	(2)	(3) 🗖	(4)	(5)	(6)	(7)
	motivated							

Question S31: Do you have or have you had a summer job or part- time job that is / was relevant to you as a biologist?

- (1) **U** Yes
- (2) 🛛 🗖 No

Question S32: Please mention briefly what you think are the main competences you as a biologist can contribute with in the workplace

Now some questions about your school situation and future plans.

Question S33: Do you have a clear plan of how you want to make use of your education in biology?

- (1) **U** Yes
- (2) 🛛 🗖 No

Question S34: How much do you agree with the statements below?

	1. Strongly disagree	2. Disagree	3. Slightly disagree	4. Neutral	5. Slightly agree	6. Agree	7. Strongly agree
 A: I often consider dropping out of my courses 	(1)	(2)	(3)	(4)	(5) 🗖	(6) 🗖	(7)
 B: I am confident that I will continue my studies 	(1)	(2)	(3)	(4)	(5)	(6) 🗖	(7)
C: I have often considered quitting biology	(1)	(2)	(3)	(4)	(5) 🗖	(6) 🗖	(7)

Question S35: How satisfied do you feel at the university /college?

- (1) 1. Extremely unsatisfied
- (2) **Q** 2. Very unsatisfied
- (3) **3**. Quite unsatisfied
- (4) 4. Neutral
- (5) **D** 5. Quite satisfied
- (6) G. Very satisfied
- (7) **7**. Extremely satisfied