

Department of Polar Science Course Registration Model (5-year Integrated Doctoral Program)

Fields of education and research guidance: Polar Bioscience
Research topics: Microbial ecosystems in periglacial environments

Year	Comprehensive subjects	Credits	School common foundation subjects	Credits	Introductory subjects group	Credits	Specialization subjects group	Credits	Research guidance subjects group	Credits	Fieldwork
1	Student seminars	1	Introduction to Advanced Earth Science I	2	Introduction to Terrestrial Ecology in Polar Region	2	Polar Limnology and Ecology	2	Special Lectures for Dissertation I	2	Conduct sampling of microorganism communities in snowy valleys in the high mountains of Japan in summer.
	SOKENDAI lectures	1	Introduction to Advanced Earth Science II	2		Biodiversity in Polar Regions	2	Special Exercise for Dissertation I	2		
<p><Goals> As you broadly study multidisciplinary sciences and polar science, focus on a research theme and set up a general framework for the research plan of your doctoral thesis. At the student presentation sessions in February, explain your research findings to date, and present your plan for further research work. This presentation is reviewed by supervisors, as well as by the entire body of academic staff in the department.</p>											
2			Introduction to Multidisciplinary Sciences	2			Ice Core Paleoclimatology	2	Special Lectures for Dissertation II	2	Participate in observation of microbial ecosystems on glaciers at Ny-Alesund Station (Norway) in summer.
			Polar Marine Environment Systems	2					Special Exercise for Dissertation II	2	
<p><Goals> Narrow down the themes of your doctoral thesis, and decide on a particular theme and research plan. Conduct fieldwork or other activities to collect the data needed for your thesis. At the student presentation sessions in February, explain your research findings to date, and present your plan for further research work. This presentation is reviewed by supervisors, as well as by the entire body of academic staff in the department.</p>											
3									Special Lectures for Dissertation III	2	Join the summer party of the Japanese Antarctic Research Expedition to conduct observation of microbial ecosystems on ice sheets.
									Special Exercise for Dissertation III	2	
<p><Goals> Collect necessary data in accordance with the theme of the doctoral thesis, through fieldwork or other means, and analyze the data. At the student presentation sessions in February, explain your research findings to date, and show a research plan for further work. This presentation is reviewed by supervisors, as well as by the entire body of academic staff in the department.</p>											
4									Special Lectures for Dissertation IV	2	
									Special Exercise for Dissertation IV	2	
<p><Goals> Finish collecting all the data necessary for the doctoral thesis and proceed with analyzing the data. Start writing the thesis. In addition, prepare a paper on a topic connected with the doctoral thesis and submit it to a peer-reviewed journal. Furthermore, write an interim report, including all the findings of your research since enrolment. Complete this before the end of the academic year and have it assessed by the academic staff of the research group. At the student presentation sessions in February, explain your research findings to date. This presentation is reviewed by supervisors, as well as by the entire body of academic staff in the department.</p>											
5									Special Lectures for Dissertation V	2	Conduct sampling of microorganism communities in snowy valleys in the high mountains of Japan in summer.
									Special Exercise for Dissertation V	2	
<p><Goals> Proceed with writing the doctoral thesis. The thesis should be 80% complete (at the standard of a doctoral thesis) by the preliminary assessment stage. After the preliminary assessment, make sure to address all the issues raised by the preliminary assessment committee before applying for the final assessment. Then work to complete the thesis.</p>											

No. of credits	2	8	2	8	20
	(1)	(2)	(3)	(4)	(5)

Obtained credits	40
Credits needed for degree	40

(Note that 8 credits from category (2) must be included. Up to 2 credits of category (1) can be counted towards the degree. In addition, credits earned from other universities can also be counted towards the degree, in accordance with the credit exchange system, subject to specified limits.)