

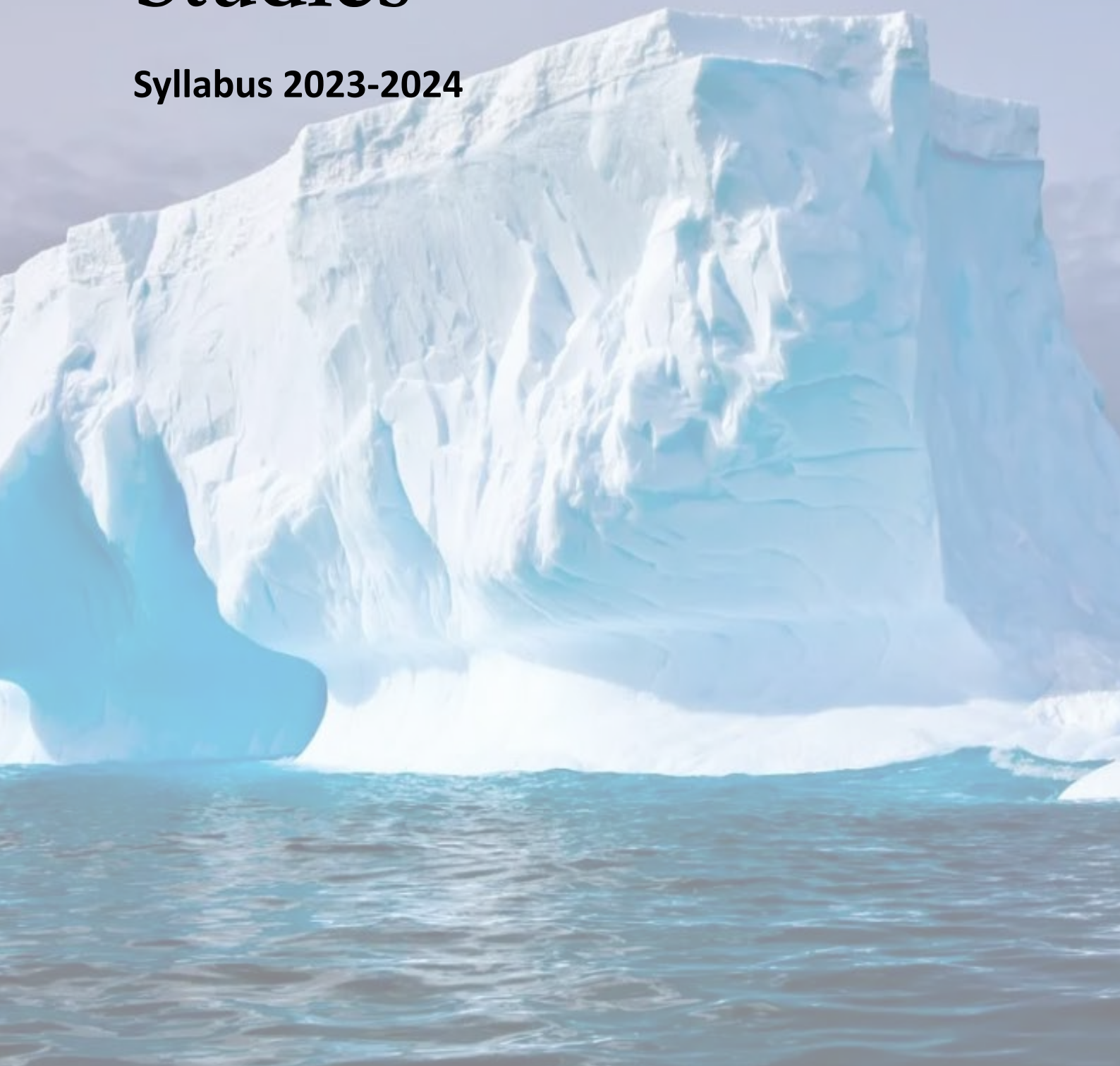


university of
 groningen

Minor

Arctic and Antarctic Studies

Syllabus 2023-2024



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I. Introduction to the Minor

This Minor program is designed to provide a broad ecological, historical, social and legal overview of the Polar Regions - the Arctic and Antarctica – with special attention for the unique values of these regions, how humans interact with the polar environments and how these regions are being governed. You will learn about the culture of indigenous peoples, voyages of discovery, animal life, threats to nature and people due to climate change and pollution, and the ways in which states organize and cooperate in the governance of the areas. The Minor is suitable for students from a variety of educational backgrounds, including ecology, history, anthropology, arts, international relations and law. Instructors in the program are all carrying out original research in this dynamic part of the world and have decades of experience with policy related issues and advising governments.

Structure

Two blocks of three courses of 5 ECTS each (in total: $6 \times 5 = 30$ ECTS) can be followed full-time.

- Sept – Oct: courses 1A, 1B and 1C
- Nov – Dec: courses 2A, 2B and 2C.

The 3 courses of one block (referred to as *modules A, B and C*) are different in format and purpose:

- In module (A) the student acts as a student,
- In module (B) the student takes the role of teacher and
- In module (C) the student approaches a topic as scientist.

Most students follow both blocks (the full Minor) as the content of all courses is different, but you may choose to follow only one block or even one course. In each block, module A is required for participation in module B or C.

All courses are given in the English language. The minor starts each year in September and the full-time minor will last for half a year (30 ECTS), ending in January.

Overall learning goals:

After completing this Minor you will:

- have knowledge of the special natural and societal values of the Arctic and Antarctic, how humans interact with these special regions and how these regions are being governed;
- understand how climate change in the polar regions is relevant for the rest of the world;
- be able to connect knowledge from different research disciplines;
- develop professional skills in relation to time management and presenting lectures;
- conduct a desk study and write an academic paper.

See below for the specific learning goals for the individual courses.

What can this Minor do for your career?

This programme can provide excellent preparation for a career in research (natural science, social science, humanities and law) or policy/governance. Working independently and in groups,

students will learn to think critically, develop original research topics, and write well-formulated analyses. Because the program focuses on the Polar Regions, students will gain valuable multidisciplinary insights into recent and pre-modern climate change, a topic of great relevance to a variety of research fields—from the hard sciences to history and political science—across the globe.

Additionally, a wide-ranging understanding of the Polar Regions can be a crucial asset to many public- and private-sector employers with operations in the Arctic and Antarctic, such as Royal Haskoning, DHV, Musea, IAATO, AECO, WWF, and Greenpeace.

Former students of the Arctic Centre are currently carrying out original scientific research in universities and museums, as well as policy work in international polar organizations. Others opt for a different career, but value their multidisciplinary knowledge about the unique Polar Regions and changes due to climate change as unique background knowledge.

Your lecturers

Course instructors at the Arctic Centre are actively engaged in original research and serve as official Dutch representatives to the Antarctic governance meetings and the influential working groups of the Arctic Council. For the Antarctic this work relates to regulating Antarctic tourism and protecting wilderness values. For the Arctic, our involvement mainly relates to international cooperation on biodiversity, pollution and a sustainable future for people, including indigenous people.

Brightspace

The online environment in which the courses are organized is called Brightspace and is accessible via <https://brightspace.rug.nl/>. Apart from general information, announcements and lecture handouts, it contains the possibility to upload products and organize peer reviews. Communication with students will also be via Brightspace, which includes updates of the program, assignments and anonymous grades.

In rare cases, the lectures will be given online in Blackboard Collaborate, which can be found with the button [Communication][Bb Collaborate Ultra] in the blue bar on screen.



II. Courses

1A Inhabitants in polar areas (LGX228B05)

Coordinating lecturer: Maarten Loonen, email m.j.e.loonen@rug.nl

In this series of lectures you will learn about the conditions experienced — and adaptations exhibited — by plants, animals and people in the world's polar areas. Lectures will integrate diverse subjects, including meteorology, geology, ecology, and anthropology. A strong focus is placed on physical changes, including climate change, affecting inhabitants of these sensitive areas.

Learning goals

In *module A*) you will have the role of a student. After finalizing this module you are able to:

- describe characteristics and phenomenon of the polar regions from different multi-disciplinary perspectives;
- reflect on the differences and similarities between the Arctic and Antarctic region with regard to flora and fauna, human activities and indigenous cultures;
- explain the relevance of polar areas for the rest of the world with regards to climate change, ecological values, and natural resources;
- translate your knowledge of the historical and current environmental and social challenges of the polar regions into possible solutions for societal challenges in your own environment.

Course structure

The course runs for 6 weeks from the 5th of September until 2023 until October 31st 2023. There are two classes of 1 hour and 45 minutes every week. The course consists of 14 staff lectures and a written exam. The staff lectures will be given by different teachers who are specialist in their subject.

Literature

See the schedule below for the reading material. Preparing lectures by reading this literature is important. During the course additional literature (e.g., new publications) may be provided. For this course we use regular references to parts of World Ocean Review 6 (WOR6) "The Arctic and Antarctic - Extreme, Climatically Crucial and In Crisis", which is available on the internet: <https://worldoceanreview.com/en/wor-6/>. This publication provides much background information but also has a wide scope on the polar regions.

Grading

There is an **individual written exam** for each student. The exam is composed of open questions. The written exam will have a duration of 3 hours.

The course accounts for 5 ECTS with a total of 140 hrs, distributed across the following elements:

Activity	Time investment
Staff lectures	42 hrs
Reading literature	21 hrs
Exam studies	73 hrs
Exam	4 hrs

Schedule and literature

All lectures are given from 09:00 to 10:45, live in room 314 at the Aweg30 in Groningen.

Program	Date	Lecturer	Topic	Literature Literature is required unless it is explicitly included as recommended reading.
Tuesday	5 September	Loonen	Introduction	WOR6: A brief history of the polar regions. WOR6: Why it is so cold in the polar regions
Friday	8 September	Loonen	Ice, glaciers, permafrost and climate	WOR6: Ice floes, ice sheets and the sea
Tuesday	12 September	Loonen	Climate change	WOR6: Pathways of heat WOR6: Retreating ice WOR6: Polar ecosystems in retreat
Friday	15 September	Steenhuisen	Geography	AMAP Assessment Report Arctic Pollution Issues 1998. Ch. 2 Physical / Geographical characteristics of the Arctic. https://www.amap.no/documents/download/88/inline
Tuesday	19 September	Loonen	Ecosystems	Alsos et al. (2007) Frequent Long-Distance Plant Colonization in the Changing Arctic. <i>Science</i> 316: 1606-1609 https://rug.on.worldcat.org/oclc/144635036 Convey & Stevens (2007) Antarctic biodiversity. <i>Science</i> 317: 1877-1878 https://rug.on.worldcat.org/oclc/5551477477
Friday	22 September	Loonen	Adaptations of animals	WOR6: Living in the cold
Tuesday	26 September	Loonen	Oceans	WOR6: Marine life WOR7: Pollution of the oceans
Friday	29 September	Desjardins	People and cultures of the prehistoric Arctic	Friesen, T.M. (2016) "Chapter 28: Pan-Arctic population movements: The early Paleo-Inuit and Thule Inuit migrations." In Friesen, T. M. & Mason, O. K. (Eds.) <i>Oxford handbook of the prehistoric Arctic</i> , Oxford University Press. Pp. 673-692. https://rug.on.worldcat.org/oclc/934627816
Friday changed date	13 October changed date	Desjardins	People and cultures of Arctic Canada	Tassinari, P. (Dir.) (1995) <i>Broken promises – the high Arctic relocation</i> . 52 min. https://www.nfb.ca/film/broken_promises_-_the_high_arctic_relocation/ Vaudry, S. (2016) "Our connection makes us stronger": Inuit youth's strategies to feel comfortable in Ottawa. <i>Études/Inuit/Studies</i> 40(1): 127-146. https://rug.on.worldcat.org/oclc/7075682063
Friday	6 October	Hokwerda	People and cultures of Greenland	Nuttal, M. Living in a world of movement: human resilience to environmental instability in Greenland. In: Crate, S.A. & Nutall, M. (2016) <i>Anthropology and Climate Change</i> . Chapter 18. Routledge, New York. https://www.sv.uio.no/livet-rundt-studiene/studiestart/kollokviefadder/artikler-til-kollokvietreff/living-in-a-world-of-movement.pdf

Tuesday	17 October changed date	Scheepstra	Indigenous peoples of the present Arctic	Rautio, A., B. Poppel & K. Young (2015). Chapter 8: Human health and Well-being. In: Larsen, J. N., & Fondahl, G. (Eds.). (2015). Arctic human development report: Regional processes and global linkages. Nordic Council of Ministers. http://norden.diva-portal.org/smash/get/diva2:788965/FULLTEXT03.pdf
Friday	20 October changed date	Scheepstra	Societal challenges in the present Arctic	Herrmann, T & Alfani, Brunner & Doering, A & Dudeck, N & Fjellheim, J & Omma, A & Saxinger, E & Elster, Josef & J.E., Henriksen, & N., Hermansen, & A., Holmberg & Kramvig, Britt & A.M.N., Keskitalo, & E.M., Omma, & Saxinger, Gertrude & A., Scheepstra, & J., van. (2023). <i>Roadmap to decolonial Arctic Research</i> . 10.25365/phaidra.400. https://www.researchgate.net/publication/372478825_Roadmap_to_decolonial_Arctic_Research/citation/download
Tuesday	3 October changed date	Sokolickova	Living in Svalbard	Sokolíčková, Z., Meyer, A., & Vlachov, A. (2022). Changing Svalbard: Tracing interrelated socio-economic and environmental change in remote Arctic settlements. <i>Polar Record</i> , 58, E23. https://doi.org/10.1017/S0032247422000213 Voluntary: Sokolíčková, Z. (2023). <i>The Paradox of Svalbard: Climate change and globalisation in the Arctic</i> . London: Pluto.
Tuesday changed day	10 October changed date	Loonen	Living in Antarctica & Evaluation	Huiskes et al. (2014) Aliens in Antarctica: assessing transfer of plant propagules by human visitors to reduce invasion risk. https://www.sciencedirect.com/science/article/pii/S0006320714000500 Bokhorst, Convey & Aerts (2019) Nitrogen inputs by marine vertebrates drive abundance and richness in Antarctic terrestrial ecosystems. <i>Current Biology</i> , 29: 1721-1727. https://www.cell.com/current-biology/pdf/S0960-9822(19)30436-1.pdf
Tuesday	31 October	09:00-12:00	Exam Offerhauszaal Academiegebouw	
Tuesday	16 January	09:00-12:00	Resit Exam Aweg 30, room 214	

1B Life in polar areas (LGX227B05)

Coordinating lecturer: Maarten Loonen, email m.j.j.e.loonen@rug.nl

This course covers a wide range of topics relating to nature, culture, and economy in the polar areas. Throughout the course, you as a student will become the teacher and will be giving two lectures together with fellow student-teachers. In parallel to giving the lectures, you will also review the work of other groups and provide feedback. This course allows you to improve your presentation skills and educates you in how to provide useful feedback to others.



Learning goals

In *module B*) you will have the role of a teacher. After finalizing this module, you are able to:

- explain (based on **knowledge** gained) different aspects of human discoveries and human activities in the polar areas;
- take an **academic and critical perspective** when reading, presenting and discussing developments in relation to the polar regions;
- develop a lecture and master **professional presentation** skills to teach your fellow students on a pre-defined polar topic;
- integrate and summarise knowledge on a topic into one clear **academic poster**;
- give **critical but constructive feedback** on the performances of your fellow students.

Course structure

The course runs for 6 weeks from the 5th of September until November 3rd 2023.

There are two classes of 6 hours every week.

The course consists of:

- an **introduction lecture** that explains the course;
- **presentations sessions** in which students present: the class will be divided by the staff into small groups of 3 students (scheme will be made available on Brightspace). You will work on two presentations, prepared by two different groups: first a presentation on a topic within the theme 'nature' and then (as part of a new group) a presentation on a topic within the theme 'people and processes' (see below). The small groups will get a theme assigned by the teacher.
- **two feedback (reflection) sessions**: after each of the two rounds of presentation sessions, there is a feedback session in which you provide feedback to another group;
- one final **poster presentation symposium**: at the end of the course, with your small group you will present a poster on the topic of your second presentation. This final lecture will therefore have the character of a small academic symposium.

As for the **presentations**, these will relate to a topic that falls in one of the following themes (see Table 1 below):

Theme 1: Nature

Theme 2: People and processes.

In short, we expect the following:

- The lecture should take about 45 minutes where you as students take over the role of teacher to give an informative lecture about your topic;

- Make sure it is not a secondary school presentation, or presentation based on wikipedia knowledge, but a lecture that fits to academic education:
 - o Build in aspects that are of an academic nature (e.g., connecting knowledge from different disciplines, outcome of research, etc.)
 - o Include at least 3 academic publications (journal articles or book chapters) which are related to your topic;
- Make sure you choose a logical structure for your presentation, and not only that provides factual information; try to create a flow in your 'story'.
- The presentations should be made in a PowerPoint or similar format, however the lay out is up to you. Prevent much text on your slides but try to incorporate keywords. Images are useful to make the slides more attractive and to keep attention from your audience;
- Think about how you would like to include interaction with the audience (prior, during and/or at the end of your lecture);
- Don't forget to mention the sources that you have been using (in the presentation where appropriate and as a bibliography at the end of your presentation), also for the pictures that you are using.

Your presenting group will be connected to another group, to whom you will **provide feedback** about their presentation skills and content. The feedback is expected to be based on the learning goals of this course and the components mentioned above. See below under 'grading'.

For theme 2 the class will again be divided into new groups consisting of 3 students and these new groups will likewise be connected to a new group of peers that will provide them with feedback.

As final component of the course, is the **production and presentation of a poster** during an internal course symposium. You will work on the poster with the same group as for the second presentation. You may work on the topic of the second presentation but you may also decide to make a change and, for instance, connect several topics of the course in one poster.

The deadline for the poster hand-in is 23 October. It is therefore important to work on the second presentation and poster in parallel. This ensures that you will be ready in time and that you have sufficient time for preparing the course 1A-exam.

The posters will be printed out and presented in class whereby each group presents their poster to fellow students and must visit other posters as well. External experts and interested persons may be invited (e.g. employees of the Arctic Centre).

Grading

During this course you will provide peer-feedback at group-level for the presentations of your fellow students. So, with your group you give one mark to the group to which you have been connected. During the reflections sessions you will discuss the feedback with the group that provided the presentation. Your feedback should be descriptive and preferably contain examples of good things and points of improvement so that your fellow student can use this for the next presentation.

The feedback is expected to be based on the learning goals of this course and the components for a good presentation, mentioned above. These components may be summarized into the following three main criteria:

- Knowledge gained;

- Academic character and critical attitude (e.g., attention for science from different disciplines, use of academic sources, raising questions on research outcome and/or relevant policies);
- Presentation skills, including, e.g., use of techniques, participation of group members, interaction with the audience.

The posters will be graded by the teacher.

Consequently, the final mark will consist of three components:

- presentation theme 1 (1/3) – peer review but with correction option by teacher
- presentation theme 2 (1/3) – peer review but with correction option by teacher
- poster symposium (1/3) – by teacher

The course accounts for 5 ECTS with a total of 140 hrs, distributed across the following elements:

Activity	Time investment
Staff lectures	3 hrs
Presentations/reflection	42 hrs
Group work & preparation	90 hrs
Poster session	5 hrs

If you somehow feel like the work division or cooperation for the preparation of the presentations in your group was unequally divided or unfair, or if you would run into other problems with the group-work that cannot be solved within the group, please feel free to contact Maarten Loonen via email (m.j.j.e.loonen@rug.nl) or in person.

Schedule - All classes are mandatory. If you can't participate, please email **Maarten Loonen**

Program		Room 314, Aweg 30 Groningen		
Tuesday	5 September	Loonen	Introduction	11:00-11:45
		Daniëlle Fluks	Lecture How to present	13:30-14:15
Friday	15 September	Loonen	Presentations theme 1	11:00-17:00
Tuesday	19 September	Loonen	Presentations theme 1	11:00-17:00
Friday	22 September	Loonen	Reflections theme 1	11:00-17:00
Tuesday	3 October	Loonen	Presentations theme 2	11:00-17:00
Friday	6 October	Loonen	Presentations theme 2	11:00-17:00
Tuesday	10 October	Loonen	Reflections theme 2	11:00-17:00
Friday	3 November	Poster session	Present group posters	11:00-17:00

Table 1 - Presentation themes

Theme 1 – Ecology and natural processes	Theme 2 – People, culture and societies
Ecology of whales	Peopling of America
Invasive species	Gender
Arctic bird migration	Greenland self governance
Southern Ocean food web	Indigenous hunting regulations
Svalbard reindeer	Russian languages
Ecology of penguins	Indigenous knowledge
Ecology of Antarctic seals	Indigenous art and clothing
Coastal erosion	Gold rush to the Arctic
Ice Sheets of Greenland and Antarctica	Animals in traditional Inuit stories
Forest fires in the Sub-Arctic and Arctic	Colonization of Northern Norway
Aurora	Norse society in Greenland/Iceland
Ozone layer	Bear rituals in indigenous cultures
Short lived climate forcers (black carbon etc...)	History of Russian invasion of Siberia

1C Science in polar areas (LGX229B05)

Coordinating lecturer: Kees Bastmeijer, email c.j.bastmeijer@rug.nl

In this course, you will perform a literature study and write a scientific essay on a topic of your own choosing in Arctic or Antarctic natural or social science. The topic should be linked to the themes of this block being nature, indigenous people or climate change. Under the supervision of an expert researcher in the Arctic Centre, you will learn to conduct research and to develop a scientific essay on your own chosen topic. This experience may be of great value for your future educational assignments, such as writing a bachelor and/or master thesis.



Learning goals

In *module C*) you will have the role of a scientist. After finalizing this module you are able to:

- translate your interest in a subject into a literature review and a problem statement;
- scoping your research and formulate a relevant research question (and if appropriate, subquestions);
- find a rich selection of relevant scientific sources (journal articles, academic book chapters) and make a critical analysis of these sources in order to answer your research question;
- write a comprehensive academic paper, based on an objective and critical academic attitude;
- understand the relevance of academic research for societal debates;
- review the science papers of your fellow students, and give constructive feedback.

Course structure

The course starts on September 5th 2023 with an **ONLINE introductory lecture** and a take-home assignment. The lecture will provide an introduction to research design and writing an academic essay. For this assignment you are expected to grade an essay from a student from a previous year on the basis of the components (criteria) discussed during the introductory lecture. You have to hand in this assessment through Brightspace before Monday September 11th, 11 a.m.

During the second lecture on September 12th (also **ONLINE**) we will focus on **three issues**:

- i. we will (although briefly) **reflect on your assessments and the criteria** for assessment that have been used. On the basis of your input and our discussions, we may adjust the criteria. We will then fix the criteria that will be used for the assessment of your own paper and that you can use for grade final papers of fellow students
- ii. each student will **present the topic of her/his own paper and at least 5 different academic publications relevant to that topic**. This means that you have to start preparing directly after the lecture of September 5th. This gives you the opportunity to receive feedback or ask for help from your fellow students and the lecturer. The time available for your presentation will be determined later, depending on the number of students in the course;

- iii. we will provide information on use of chat GPT, specifically about the do's and the don'ts. See for a summary, the last part of this syllabus.

For the week of 18-22 September, you have to plan a **meeting with an assigned expert** in the field relevant for your paper. Please, be aware of the fact that people are busy and that you have to make an appointment as soon as you know the topic. You are asked to prepare a clear overview of your research design for this meeting, to be presented in a clear schedule. Ideally you have already written an introduction and made a structure of your essay.

On 20 or 24 October (depending on which group you are), you have to **present your essay** and (preliminary) conclusions to your fellow students and lecturer. Make sure you **upload your presentation** on October 19th in Brightspace. In and with the presentation you are expected to illustrate a solid use of academic literature (with use of scientific figures etc., mentioning of sources, etc.). At this stage, you should be almost finished with writing your essay, because the peer review will follow in a few days.

On October 26th you have to **upload your draft essay** in Brightspace for peer review and on October 27th you **read three papers of other students and give solid feedback**. Based on feedback on your own essay you may finalise it and **deadline for handing in the final essay through Brightspace is October 31st** 2023, before 23:59.

Each student is assigned to 5 papers of fellow students which have to be **graded** using the criteria set at the beginning of the course. The deadline for the **essay grading** is November 10th 2023, before 23:59 on Brightspace.

Grading

-75% final paper (by peers)

-25% quality and commitment other tasks (*the quality of your grading of old papers, the presentation, the quality of your grading of essays of your peers, keeping deadlines and reports of the expert meeting (by teacher)*)

The course accounts for 5 ECTS with a total of 140 hrs, distributed across the following elements:

Activity	Time investment
Sessions in class	2 hrs
Old paper grading	8 hrs
Meeting with an expert	1 hrs
Topic/paper Presentations	24 hrs
Writing the essay	105 hrs

Schedule

Keeping deadlines is important in this course. Uploads should be made to BRIGHTSPACE in the proper discussion forum before 23:00 on the day in the schedule above.

Participation is mandatory. If you can't participate, please send an email beforehand to **Kees Bastmeijer** (c.j.bastmeijer@rug.nl)

Program		Room 314, Aweg 30 Groningen			
				Time	Group
Tuesday	5 September	Bastmeijer	ONLINE: Introduction + old paper grading assignment	12:00-12:45	
Monday	11 September	Brightspace	Upload old paper grading	Before 23:59	
Tuesday	12 September	Bastmeijer	Present your essay topic (5 min) + Lecture about chat GPT	11:00-17:00	
	18/9 – 22/9	Personal appointment with your specialist			
Thursday	19 October	Brightspace	Upload presentation	Before 23:59	
Friday	20 October	Bastmeijer	Present your paper (15 min)	11:00-17:00	
Tuesday	24 October	Bastmeijer	Present your paper (15 min)	11:00-17:00	
Thursday	26 October	Brightspace	Upload draft paper	Before 23:59	
Friday	27 October	All students	Peer reviewing	At home	
Tuesday	31 October	Brightspace	Upload final paper	Before 23:59	
Friday	10 November	Brightspace	Upload grading		

2A Exploitation of Polar areas (LGX231B05)

Coordinating lecturer: Kees Bastmeijer, email c.j.bastmeijer@rug.nl

Lectures in this course will address the exploitation of mineral and living resources in the polar regions as well as the role of law and international cooperation in governing these regions. In the recent past, over-exploitation by, for example, European coal miners and whalers, has posed serious problems for Arctic ecosystems, and also today the polar ecosystems and people in the North face challenges or risks due to, for instance, climate change, environmental pollution and increasing tourism. We will discuss these developments and governmental responses. While there are many similarities between both polar regions, for certain issues it is important to clearly distinguish the Arctic from the Antarctic.



Learning goals

In *module A*) you will have the role of a student. After finalizing this module you are able to:

- describe activities of exploitation of the Polar Regions and related challenges for nature and people, and explain how these regions are being governed, for instance in relation to issues such as the protection of natural values and Indigenous rights and cultures;
- reflect on the differences and similarities between the Arctic and Antarctic regions with regard to flora and fauna, human activities, indigenous cultures and international law and governance;
- explain the relevance of polar areas for the rest of the world with regards to ecological values, wilderness protection and climate change;
- translate your knowledge of the historical and current environmental and social challenges of the Polar Regions into possible solutions for societal challenges in your own environment.

Course structure

The course runs for 6 weeks from the 14th of November 2023 until the 23rd of January 2024. There are two classes of 1 hour and 45 minutes every week. The course consists of 14 staff lectures and a written exam. The staff lectures will be given by different teachers who are specialist in their subject.

Literature

See the schedule below for the reading material. Preparing lectures by reading this literature is important. During the course additional literature (e.g., new publications) may be provided.

Grading

There is an **individual written exam** for each student. The exam is composed of open questions. The written exam will have a duration of 3 hours.

The course accounts for 5 ECTS with a total of 140 hrs, distributed across the following elements:

Activity	Time investment
Staff lectures	42 hrs
Reading literature	21 hrs
Exam studies	73 hrs
Exam	4 hrs

Schedule and literature:

All lectures are given from **09:00 to 10:45**, live in room 314 at the Aweg30 in Groningen.

Program	Date	Lecturer	Topic	Literature
				Literature is required unless it is explicitly included as recommended reading.
Tuesday	14 Nov	Loonen	Arctic exploration and exploitation	WOR6: The human conquest of the polar regions
Friday	17 Nov	Desjardins	Indigenous Whaling and Walrus Hunting	Aaju, P. (2010) 'The European Parliament shuts down seal-product imports—again. <i>Above & Beyond</i> (May/June): 39-43. https://www.gov.nu.ca/sites/default/files/aaju_on_european_ban_re_seals.pdf Kishigami, N. (2010) Climate change, oil and gas development, and Inupiat whaling in northwest Alaska. <i>Études/Inuit/Studies</i> 34(1): 91-107. https://rug.on.worldcat.org/oclc/5961983943
Tuesday	21 Nov	Scheepstra	Commercial whaling	
Friday	24 Nov	Desjardins/ Scheepstra	Arctic mining	Neary, D. (2023) NUNAVUT MINING: From fuel truck driver to energy and infrastructure supervisor. <i>Nunavut News</i> (02 May). https://www.nunavutnews.com/business/nunavut-mining-from-fuel-truck-driver-to-energy-and-infrastructure-supervisor/ Lim, T. W., Keeling, A. & Satterfield, T. (2023) “We thought it would last forever”: The social scars and legacy effects of mine closure at Nanisivik, Canada's first High Arctic mine. <i>Labour / Le Travail</i> 91: 115-146. https://rug.on.worldcat.org/oclc/9955203376
Tuesday	28 Nov	Steenhuisen	Pollution in the Polar regions	AMAP Assessment Report: Arctic Pollution Issues 1998, Ch 2 Physical/Geographical characteristics of the Arctic https://www.amap.no/documents/download/88/inline
Friday	1 Dec	Hokwerda	Faroes	
Tuesday	5 Dec	Scheepstra	Arctic governance – Arctic Council	Popular introduction: Arctic Council, ‘A quick guide to the Arctic Council’, September 2019, https://oarchive.arctic-council.org/bitstream/handle/11374/2424/2019-09-30-A_quick_guide_to_the_AC_online.pdf?sequence=1&isAllowed=y Arctic Environmental Protection Strategy (AEPS) (1991), available at http://library.arcticportal.org/1542/1/artic_environment.pdf Ottawa Declaration (1996), available at https://oarchive.arctic-council.org/bitstream/handle/11374/85/00_ottawa_decl_1996_signe_d%20%284%29.pdf?sequence=1&isAllowed=y T. Koivurova and A. Shibata, ‘After Russia’s invasion of Ukraine in 2022: Can we still cooperate with Russia in the Arctic?’ <i>Polar Record</i> 59(e12): 1–9, https://doi.org/%2010.1017/S0032247423000049

				<p>Kees Bastmeijer and Rachael Johnstone, 'Environmental Protection in the Antarctic and the Arctic: the Role of International Law', in: Malgosia Fitzmaurice, Marcel Brus and Panos Merkouris (eds.), <i>Research Handbook on International Environmental Law</i> (Cheltenham: Edward Elgar, 2021): 459-498 (Arctic part) https://research.rug.nl/en/publications/environmental-protection-in-the-antarctic-and-the-arctic-the-role.</p>
Friday	8 Dec	Bastmeijer	Antarctic exploration and the Antarctic Treaty	<p>Antarctic Treaty, available at https://www.ats.aq/e/key-documents.html Webpage https://www.ats.aq/e/antarctictreaty.html</p> <p>Donald R Rothwell, 'The Antarctic Treaty at Sixty Years: Past, Present and Future', <i>Melbourne Journal of International Law</i> 22 (2021), pp. 1-9 https://law.unimelb.edu.au/data/assets/pdf_file/0018/4126005/Rothwell-unpaginated.pdf</p> <p>Recommended reading: The rest of Rothwell's article (see above).</p>
Tuesday	12 Dec	Bastmeijer	Antarctica and environmental protection	<p>Protocol on Environmental Protection to the Antarctic Treaty, available at https://www.ats.aq/e/key-documents.html</p> <p>Kees Bastmeijer, 'Introduction: Madrid Protocol 1998 – 2018. The need to address "the Success Syndrome"', <i>The Polar Journal</i> 8(2)(2018), 230-240, https://www.tandfonline.com/doi/full/10.1080/2154896X.2018.1542861</p> <p>Kees Bastmeijer and Rachael Johnstone, 'Environmental Protection in the Antarctic and the Arctic: the Role of International Law', in: Malgosia Fitzmaurice, Marcel Brus and Panos Merkouris (eds.), <i>Research Handbook on International Environmental Law</i> (Cheltenham: Edward Elgar, 2021): 459-498 (Antarctic part) https://research.rug.nl/en/publications/environmental-protection-in-the-antarctic-and-the-arctic-the-role.</p>
Friday	15 Dec	Bastmeijer	Antarctic Tourism and its regulation	<p>Decision 6 (2023) of the Antarctic Treaty Consultative Meeting (ATCM), https://www.ats.aq/devAS/Meetings/Measure/804</p> <p>Kees Bastmeijer, Akiho Shibata, Imme Steinhage, Luis Valentín Ferrada and Evan T. Bloom, 'Regulating Antarctic Tourism: The Challenge of Consensus-Based Decision-Making', <i>American Journal of International Law</i> (accepted May 2023; forthcoming October 2023); prepublication available at https://www.cambridge.org/core/journals/american-journal-of-international-law/article/regulating-antarctic-tourism-the-challenge-of-consensusbased-decisionmaking/0C15F58F0EDA9100BB240DE9E3C3E56C</p> <p>Arctic Centre (RUG) research programs on Antarctic tourism GUIDE-BEST, MICI and ProAct: https://www.rug.nl/research/arctisch-centrum/projects/</p> <p>Recommended: P. Tejedro, L. Benayas, D. Cajiao YF Leung, D. De Filippo, D. Liggett, 'What are the real environmental impacts of Antarctic tourism? Unveiling their importance through a comprehensive meta-analysis', <i>Journal of Environmental Management</i> (2022), doi: https://www.sciencedirect.com/science/article/pii/S0301479722002079</p>
Tuesday	19 Dec	Bastmeijer	Wilderness protection in Antarctica	<p>Rupert Summerson and Tina Tin, 'Twenty years of protection of wilderness values in Antarctica', <i>The Polar Journal</i> 8(2)(2018), 230-240, https://www.tandfonline.com/doi/abs/10.1080/2154896X.2018.1541548</p> <p>Rachel I. Leihy, Bernard W.T. Coetzee, Fraser Morgan, Ben Raymond, Justine D. Shaw, Aleks Terauds, Kees Bastmeijer and Steven L.</p>

				<p>Chown, 'Antarctica's wilderness fails to capture continent's biodiversity', <i>Nature</i> (2020), 23 July 2020, 567-571 (published online 15 July 2020), available at https://www.nature.com/articles/s41586-020-2506-3</p> <p>Recommended: Phillipa C. McCormack, David Takacs, Benjamin J. Richardson and Kees Bastmeijer, 'Wilderness Law in the Anthropocene: Pragmatism and Purism', <i>Environmental Law</i> (2021): 383-435</p> <p>S.T. Brooks, J. Jabour, J. van den Hoff, & D.M. Bergstrom, 'Our footprint on Antarctica competes with nature for rare ice-free land', <i>Nature Sustainability</i> (2019), https://www.researchgate.net/publication/331506395_Our_footprint_on_Antarctica_competes_with_nature_for_rare_ice-free_land/link/5d70a85092851cacdb21a589/download</p>
Tuesday	9 Jan	Bastmeijer	Rights of nature and the Polar Regions	<p>Christopher Stone, 'Should Trees Have Standing: Toward Legal Rights for Natural Objects' (1972) 45 Southern California Law Review, pp. 450–50, https://huminst.red.uic.edu/wp-content/uploads/sites/412/2019/04/May-6-Stone-Should-Trees-Have-Standing.pdf</p> <p>T. Daya-Winterbottom (2023), 'Legal Personality in Antarctica', <i>The Yearbook of Polar Law Online</i>, 14(1), 123-144, https://brill.com/view/journals/yplo/14/1/article-p123_7.xml</p> <p>Zero draft of an Antarctic Declaration (2021): https://www.antarcticarights.org/wp-content/uploads/2021/02/Antarctica-Rights-Declaration-Zero-Draft-01Dec2021.pdf</p> <p>Video of Global Greens Virtual Conference Rights of Nature and Antarctic Rights', 5 February 2022, https://www.gp.org/rights_of_nature_antarctica_rights</p> <p>Recommended reading: Jordane Liebeaux, 2023, 'The No-Go Alternative: Rights of Nature and Ecocentrism in the Antarctic', Master thesis, Faculty of Law, University of Akureyri, 2023: https://skemman.is/bitstream/1946/45018/1/Thesis_JLiebeaux.pdf</p> <p>A. Putzer, T. Lambooy, I. Breemer, & A. Rietveld (2022). The Rights of Nature as a Bridge between Land-Ownership Regimes: The Potential of Institutionalized Interplay in Post-Colonial Societies. <i>Transnational Environmental Law</i>, 11(3), 501-523. file:///Users/keesbastmeijer/Downloads/the-rights-of-nature-as-a-bridge-between-land-ownership-regimes-the-potential-of-institutionalized-interplay-in-post-colonial-societies.pdf</p>
Friday	12 Jan	Bastmeijer	The future of the Polar Regions	Open discussion on the above literature and our discussions during the course.
Friday	13 Jan	Exam	9-12 Zernikezaal, Academy Building	
Wednesday	27 Mar	Resit Exam	9-12 room 314 Aweg 30	

2B Discoveries in polar areas (LGX232B05)

Coordinating lecturer: Kees Bastmeijer, email c.j.bastmeijer@rug.nl

This course covers a wide range of topics relating to activities of historic exploration, scientific research, resource exploitation, and governance of the Polar Regions. Throughout the course, you will become an instructor and will prepare two lectures as well as a poster presentation, together with fellow student-teachers. Despite giving the lectures, you will also review the work of other groups and provide feedback. This course allows you to really improve your presentation skills in an academic setting and educates you in how to provide useful feedback.



Learning goals

In *module B*) you will have the role of a teacher. After finalizing this module you are able to:

- explain (based on **knowledge** gained) different aspects of human discoveries, human activities and governance and regulation in the polar areas;
- take an **academic and critical perspective** when reading, presenting and discussing developments in relation to the polar regions;
- develop a lecture and master **professional presentation** skills to teach your fellow students on a pre-defined polar topic;
- integrate and summarise knowledge on a topic into one clear **academic poster**;
- give **critical but constructive feedback** on the performances of your fellow students.

Course structure

The course runs for 6 weeks from the **11th of November 2023, until January 26th, 2024**.

There are two classes of 6 hours every week.

The course consists of:

- an **introduction lecture** that explains the course and a lecture on presentation skills;
- **presentations sessions** in which students present: the class will be divided by the staff into small groups of 3 students (scheme will be made available on Brightspace). You will work on two presentations, prepared by two different groups: first a presentation on a topic within the theme 'discoveries' and then (as part of a new group) a presentation on a topic within the theme 'exploitation and governance' (see below). The small groups will get a theme assigned by the teacher.
- **two feedback (reflection) sessions**: after each of the two rounds of presentation sessions, there is a feedback sessions in which you provide feedback to another group;
- one final **poster presentation symposium**: at the end of the course, with your small group you will present a poster on the topic of your second presentation. This final lecture will therefore have the character of a small academic symposium.

As for the **presentations**, these will relate to a topic that falls in one of the following themes (see Table 1 below):

Theme 1: Discoveries

Theme 2: Exploitation and governance.

In short, we expect the following:

- The lecture should take about 45 minutes where you as students take over the role of teacher to give an informative lecture about your topic;
- Make sure it is not a secondary school presentation but a lecture that fits to academic education:
 - o Build in aspects that are of an academic nature (e.g., connecting knowledge from different disciplines, outcome of research, etc.)
 - o Include at least 3 academic publications (journal articles or book chapters) which are related to your topic;
- Make sure you choose a logical structure for your presentation, and not only that provides factual information; try to create a flow in your 'story'.
- The presentations should be made in a PowerPoint format, however the lay out is up to you. Prevent much text on your slides but try to incorporate keywords. Images are useful to make the slides more attractive and to keep attention from your audience;
- Think about how you would like to include interaction with the audience (prior, during and/or at the end of your lecture);
- Don't forget to mention the sources that you have been using (in the presentation where appropriate and as a bibliography at the end of your presentation).

Your presenting group will be connected to another group, to whom you will **provide feedback** about their presentation skills and content. The feedback is expected to be based on the learning goals of this course and the components mentioned above. See below under 'grading'.

For theme 2 the class will again be divided into new groups consisting of 3 students and these new groups will likewise be connected to a new group of peers that will provide them with feedback.

As final component of the course, is the **production and presentation of a poster** during an internal course symposium. You will work on the poster with the same group as for the second presentation. You may work on the topic of the second presentation but you may also decide to make a change and, for instance, connect several topics of the course in one poster.

The deadline for the poster hand-in is 23 October. It is therefore important to work on the second presentation and poster in parallel. This ensures that you will be ready in time and that you have sufficient time for preparing the course 1A-exam.

The posters will be printed out and presented in class whereby each group presents their poster to fellow students and must visit other posters as well. External experts and interested persons may be invited (e.g. employees of the Arctic Centre).

Grading

During this course you will provide peer-feedback at group-level for the presentations of your fellow students. So, with your group you give one mark to the group to which you have been connected. During the reflections sessions you will discuss the feedback with the group that provided the presentation. Your feedback should be descriptive and preferably contain examples of good things and points of improvement so that your fellow student can use this for the next presentation.

The feedback is expected to be based on the learning goals of this course and the components for a good presentation, mentioned above. These components may be summarized into the following three main criteria:

- Knowledge gained;
- Academic character and critical attitude (e.g., attention for science from different disciplines, use of academic sources, raising questions on research outcome and/or relevant policies);
- Presentation skills, including, e.g., use of techniques, participation of group members, interaction with the audience.

The posters will be graded by the teacher.

Consequently, the final mark will consist of three components:

- presentation theme 1 (1/3) – peer review but with correction option by teacher
- presentation theme 2 (1/3) – peer review but with correction option by teacher
- poster symposium (1/3) – by teacher

The course accounts for 5 ECTS with a total of 140 hrs, distributed across the following elements:

Activity	Time investment
Staff lectures	3 hrs
Presentations/reflection days	42 hrs
Group work & preparation	90 hrs
Poster session	5 hrs

If you somehow feel like the work division or cooperation for the preparation of the presentations in your group was unequally divided or unfair, or if you would run into other problems with the group-work that cannot be solved within the group, please feel free to contact **Kees Bastmeijer, email (c.j.bastmeijer@rug.nl)** or in person.

Schedule

All lectures/presentations take place in room 314 at the Aweg 30 in Groningen and are mandatory. If you can't be present, please contact Kees Bastmeijer

Program		Room 314, Aweg 30 Groningen*		
Tuesday	14 November	D. Fluks	lecture on 'how to present?'	11:00-11:45
		Bastmeijer	Introduction	13:00-13:45
Friday	24 November	Bastmeijer	Presentations theme 3	11:00-17:00
Tuesday	28 November	Bastmeijer	Presentations theme 3	11:00-17:00
Friday	01 December	Bastmeijer	Reflections theme 3	11:00-17:00
Tuesday	13 December	Bastmeijer	Presentations theme 4	11:00-17:00
Friday	15 December	Bastmeijer	Presentations theme 4	11:00-17:00
Friday	19 December	Bastmeijer	Reflection theme 4	11:00-17:00
Friday	19 January	Bastmeijer	Poster presentations	11:00-16:00

Presentation themes

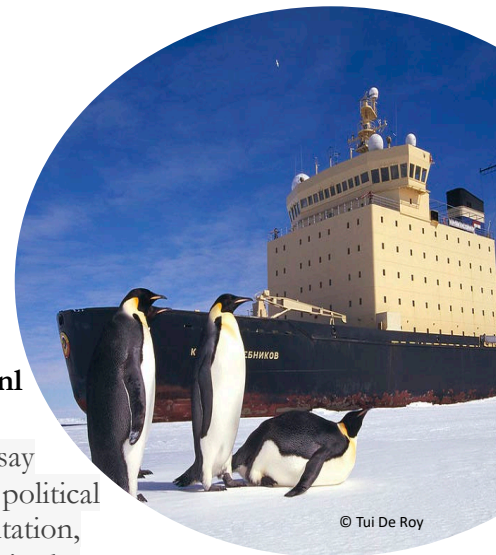
Table 2

Theme 3 - Discoveries	Theme 4 – Exploitation and governance
Discovering the North west Passage	Exploitation in the Arctic
Discovering the North East Passage	The Arctic Council and its future
Discovering Greenland	Seal and whale hunting
Discovering Antarctica and territorial claims	Reindeer herding
Race to the North Pole	Tourism in the Arctic and its regulation
Race to the South Pole	Polar shipping and the IMO Polar Shipping Code
Inuit and Western explorers: First Encounters	Protected areas in the Arctic
Saami and Western explorers: First Encounters	Property rights in Indigenous cultures
Antarctic research stations	Rights of Nature in the Arctic
Role of Asian countries in polar research	Exploitation in the Antarctica
Science and human footprint in Polar Regions	The Antarctic Treaty System and its future
Lessons from polar expeditions: how to survive?	Protecting the Southern Ocean
Arctic discoveries and colonisation	Rights of Nature for/in Antarctica
Inuit discoveries of the Western World	Protected areas in Antarctica
New polar discoveries in the 21th Century	Areas closed to humans in Polar Areas
Are there undiscovered and/or inviolate areas in the Polar Regions?	Ecosystem-based management of marine resources
Antarctic science as first step for discoveries in space	Traditional Inuit culture and the notion of preventing over-use (e.g. in traditional Inuit stories)
Do polar animals also discover new areas?	Exploitation of wilderness in the Polar Regions
	Green colonialism

2C Science in polar areas (LGX230B05)

Coordinating lecturer: Maarten Loonen, email m.j.e.loonen@rug.nl

In this course, you will perform a literature study and write a scientific essay on a topic of your own choosing in Arctic or Antarctic natural, social, or political science. Your topic should relate to the themes of this block being exploitation, discoveries or governance. Under the supervision of an expert researcher in the Arctic Centre, you will learn to (1) formulate a relevant and original research question, (2) review relevant scientific literature, and (3) craft a professional paper/report on the topic.



Learning goals

In *module C*) you will have the role of a scientist. After finalizing this module you are able to:

- translate your interest in a subject into a literature review and a problem statement;
- scoping your research and formulate a relevant research question (and if appropriate, subquestions);
- find a rich selection of relevant scientific sources (journal articles, academic book chapters) and make a critical analysis of these sources in order to answer your research question;
- write a comprehensive academic paper, based on an objective and critical academic attitude;
- understand the relevance of academic research for societal debates;
- review the science papers of your fellow students, and give constructive feedback.

Course structure

The course starts on November 4th 2023 with an **introductory lecture** and a take-home assignment. The lecture will provide an introduction to research design and writing an academic essay. For this assignment you are expected to assess and grade an essay from a student from a previous year on the basis of the components (criteria) discussed during the introductory lecture. You have to hand in this assessment through Brightspace on Monday November 20th, 23:59.

During the second lecture on November 21st we will focus on **three issues**:

- i. we will (although briefly) **reflect on your assessments and the criteria** for assessment that have been used. On the basis of your input and our discussions, we may adjust the criteria. We will then fix the criteria that will be used for the assessment of your own paper and that you can use for grade final papers of fellow students
- ii. each student will **present the topic of her/his own paper and at least 5 different academic publications relevant to that topic**. This means that you have to start preparing directly after the lecture of September 5th. This gives you the opportunity to receive feedback or ask for help from your fellow students and the lecturer. The time available for your presentation will be determined later, depending on the number of students in the course;
- iii. we will provide information on use of chat GPT, specifically about the do's and the don'ts. See for a summary, the last part of this syllabus.

For the week of 5-8 December, you have to plan a **meeting with an assigned expert** in the field relevant for your paper. Please, be aware of the fact that people are busy and that you have to make an appointment as soon as you know the topic. You are asked to prepare a clear overview of your research design for this meeting, to be presented in a clear schedule. Ideally you have already written an introduction and made a structure of your essay.

On 15 or 19 December (depending on which group you are), you have to **present your essay** and (preliminary) conclusions to your fellow students and lecturer. Make sure you **upload your presentation** on December 14th in Brightspace. In and with the presentation you are expected to illustrate a solid use of academic literature (with use of scientific figures etc., mentioning of sources, etc.). At this stage, you should be almost finished with writing your essay, because the peer review will follow in a few days.

On January 8th you have to **upload your draft essay** in Brightspace for peer review and on January 9th you **read three papers of other students and give solid feedback (online lecture)**. Based on feedback on your own essay you may finalize it and **deadline for handing in the final essay through Brightspace is January 16st** 2023, before 23:59.

Each student is assigned to 3 papers of fellow students which have to be **graded** using the criteria set at the beginning of the course. The deadline for the **essay grading** is January 30th 2023, before 23:59 on Brightspace.

Grading

-75% final paper (by peers)

-25% quality and commitment other tasks (*the quality of your grading of old papers, the presentation, the quality of your grading of essays of your peers, keeping deadlines and reports of the expert meeting (by teacher)*)

The course accounts for 5 ECTS with a total of 140 hrs, distributed across the following elements:

Activity	Time investment
Sessions in class	2 hrs
Old paper grading	8 hrs
Meeting with an expert	1 hrs
Topic/paper Presentations	24 hrs
Writing the essay	105 hrs

Schedule

Keeping deadlines is important in this course. Uploads should be made to BRIGHTSPACE in the proper discussion forum before 23:00 on the day in the schedule above.

Participation is mandatory. If you can't participate, please send an email beforehand to **Maarten Loonen (m.j.j.e.loonen@rug.nl)**

Program		Room 314, Aweg 30 Groningen		
				Time
Tuesday	14 November	Loonen	Introduction + start old paper grading	12:00-13:00
Monday	20 November	Brightspace	Upload old paper grading	<23:59
Tuesday	21 November	Loonen	Present your essay topic (5 min)	11:00-17:00
	5/12 – 8/12	Personal appointment with your specialist		
Thursday	14 December	Brightspace	Upload presentation	<23:59
Friday	15 December	Loonen	Present your paper (15 min)	11:00-17:00
Tuesday	19 December	Loonen	Present your paper (15 min)	11:00-17:00
Thursday	8 January	Brightspace	Upload draft paper	
Friday	9 January	Brightspace	Peer reviewing	Online
Tuesday	16 January	Brightspace	Upload paper	<23:59
Thursday	30 January	Brightspace	Upload grading	<23:59

III. Practical information

Brightspace

We use the digital learning environment Brightspace as the main platform for communication. The Grade Center in Brightspace is not used, we use Feedback Fruits to upload the peer-feedback and grades.

Brightspace is also used for uploading assignments and presentations.

Attendance & Absence

Presence during the lectures of 1A and 2A is not mandatory. We however strongly advise you to participate and be present during all lectures since they are part of the exam material.

Participation during the courses 1B, 2B, 1C & 2C is mandatory, and students must be present during all presentations even also of you do not have to present yourself. There is no re-sit planned for the presentations or the poster sessions. Students missing a session will get an extra assignment which usually is a review of the day missed, with grading all elements. The extra assignment will be in time more than the missed session.

Cheating and plagiarism

Cheating and plagiarism are academic offenses, with severe consequences. They are acts or omissions by students to partly or wholly hinder accurate assessment. Plagiarism can take many forms. Even handing in an essay, made by yourself, but already handed in in another course is self-plagiarism. Also excessive use of ChatGPT is regarded as plagiarism. As stated in the Teaching an Examination Regulations, cases of cheating and plagiarism are reported to the Exam Board of your study, which will decide upon the consequences. Note that these consequences can really have a negative impact on your entire study program.

Chat GPT

Chat GPT is an online tool derived from AI-technology, which can answer questions, create story's, email's essay's etc. In short:

What is acceptable is the use of chat GPT:

- for getting a introductory (general) understanding of your topic, although you should be aware of the fact that this information may be incorrect or incomplete;
- inspiration for making decisions on the focus, scope and structure of your research.

What is not acceptable is the use of chat GPT:

- for copy-pasting text (this is plagiarism);
- for using information in your paper or presentation that is not based on adequate academic sources.

Consequently, your paper has to be written by yourself and must be based on academic sources (reference to the publication as well as the page-number where the information can be found).