# Arctic Studies Programme 2024

**Curriculum:** <u>YTK - Arctic Studies Programme - Minor Subject 2024-2025 | Opinto-opas (csc.fi) / https://opinto-opas-lay.peppi4.lapit.csc.fi/en/programme/29521</u>

#### **Lectures outline**

Academic coordinator: Anna Stammler-Gossmann

#### ASPB 1101V24 Introduction to the Arctic 5 ECTS Principal tutor: Nuccio Mazzullo

| Title of the lecture | Introduction to the Arctic Societies<br>North as space and place (2 hours)  |
|----------------------|---|
| Teacher              | Anna Stammler-Gossmann  |
| Main content         | The aim of the lecture is to examine different definitions of the<br>Arctic/North from representational viewpoint – concepts, images,<br>discourses, views. The introduction gives also an overview of theoretical<br>paradigms in Arctic studies on societies (indigeneity – who is indigenous?<br>sustainable development – what does it mean on the local, regional,<br>national level?; vulnerability in the 'translated context', resilience,<br>adaptation) and local concepts of space and human-nature-land relations |
| Key words            | Space definitions and concepts; where and what is the Arctic? Homeland<br>and frontier; indigenous people, indigeneity; Social life of climate change<br>models; Concepts of sustainability, vulnerability, resilience, adaptation,<br>circularity  |
| Literature           | Armstrong, T., Rogers, G., Rowley, G. 1978. The circumpolar North. A political and economic geography of the Arctic and sub-Arctic. London: Methuen&Co.   |
|                      | Hamelin, L.E. 1979. Canadian Nordicity: It's your North, too. Montreal: Harvest House.  |
|                      | Stammler-Gossmann, A. 2011. Re-bordering of the Russian North. <i>Arctic &amp; Antarctic International Journal of Circumpolar Sociocultural Issues</i> 5: 97-114.   |
|                      | Stammler-Gossmann, A. 2009. Who is indigenous? Construction of 'indigenousness' in Russian legislation. <i>International Community Law Review</i> 11 (1), pp. 69-102.   |
|                      | Stammler-Gossmann, A. 2012. The Big Water of a Small River: Flood<br>Experiences and a Community Agenda for Change. Tennberg. M. (Ed.)  |

| Governing the Uncertain in the Arctic: Adaptation and Climate Change in Russia and Finland, pp.55-82.   |
|---|
| Stammler-Gossmann, Anna. 2010. Chapter 6. 'Translating' vulnerability at the community level: Case study from the Russian North. Hovelsrud G.K., Smit B. (Eds.), <i>Community Adaptation and Vulnerability in Arctic Regions</i> . Berlin: Springer, p.131-162. |

| Title of the lecture | Living in the cold: Rendered spaces and lived places (2 hours)   |
|----------------------|--|
| Teacher              | Anna Stammler-Gossmann   |
| Main content         | The lecture is based on case studies conducted in different Arctic regions. It<br>explores spaces and places represented, sensed and experienced as a part of<br>everyday practices, local and regional perspectives, and as affiliated national<br>discourses.<br>It looks at human adaptation to winter in northern communities, practical<br>applications of coldness, uses of winter, environmental changes and northern<br>economies. The lecture focuses on the complexity of how a place may be<br>sensed and anchor human lives despite the seeming tension between physical<br>environmental settings and meanings. |
| Key words            | Arctic communities; sense of place, uses and perception of cold;<br>environmental changes; climate change, anthropology of disaster (flooding),<br>matter of risk, circular bioeconomy, northern economies (pastoralism,<br>fisheries, tourism)  |
| -                    |  |
| Literature           | Stammler-Gossmann, A. 2013. Changing Barents Sea and coastal communities. Arctic Climate Change Economy and Society Newsletter 5: 17-21  |
|                      | Stammler-Gossmann, Anna. 2022. "To be or not to be"? Tourism<br>development plans and the voice of the river. Nordicum-Mediterraneum.<br>Icelandic E-Journal of Nordicum and Mediterranean Studies 17 (3)  |
|                      | Stammler-Gossmann, Anna. 2022. Living by the river: Means, meanings and sense of place. Chapter 7. Lehtimäki, M. et al (eds). <i>Cold waters</i> , Springer Polar sciences.  |

| Title of the lecture | Introduction to the Arctic and Boreal nature (2 hours)                |
|----------------------|---|
| Teacher              | Mari Kuoppamaa  |
| Main content         | General classification/types/distribution maps of Arctic/Boreal areas |
|                      | Differences between Arctic and Antarctic areas                        |
|                      | Special features of Arctic and Boreal areas; including physical       |
|                      | characteristics, vegetation, and typical animal species               |
|                      | Taiga forests; differences between natural and managed forests        |
|                      | Threats of arctic/boreal fauna; including climate change              |
|                      | Overview of the adaptation methods                                    |
|                      |   |

| Compulsory<br>literature | <ul> <li>Literature (compulsory for the whole course):</li> <li>CAFF (2013): Arctic biodiversity assessment: Status and trends in arctic biodiversity 2013 <u>https://www.caff.is/assessment-series/233-arctic-biodiversity-assessment-2013</u></li> <li>Read the following chapters: Introduction; indigenous peoples and biodiversity; and chapters: 1, 2, 3, 4, 6, 18 and 19.</li> <li>Larsen, S.N. &amp; Fondahl (Eds.) (2014). Arctic Human Development Report: Regional Processes and Global Linkages. Nordic Council of Ministers, TemaNOrd 2014: 567.</li> <li>FULLTEXT03.pdf (diva-portal.org)</li> <li>Read the following chapters: Summary of major findings; 1.Introduction; 2. Arctic Populations and Migration; 3.Cultures and Identities; 7. Resource</li> </ul> |
|--------------------------|---|
|                          | <ul> <li>Governance; 10. Globalization; 11. Community Viability and Adaptability; and 12. Major Findings and Emerging Trends in Arctic Human Development</li> <li>Other supplementary literature (non-compulsory reading; for those who are interested in the topic)</li> <li>Crawford 2012: Tundra-Taiga Biology;</li> <li>Thomas et al. 2008: The Biology of Polar regions;</li> <li>Larsen et al. (Eds.) (2015). Arctic Social Indicators ASI II:</li> <li>Implementation. Nordic Council of Ministers, TemaNord 2014: 568.</li> <li>FULLTEXT02.pdf (diva-portal.org)</li> </ul>   |
| Key words                | Arctic; Boreal; Nature; Species; Threats; Climate change  |

| Title of the lecture | Natural resources in the northern areas (2 hours)  |
|----------------------|--|
| Teacher              | Florian Stammler   |
| Main content         | Distribution and use of Arctic and Boreal natural resources. This<br>lecture will give an overview of natural resources in the circumpolar<br>Arctic, including resources on the surface and under the surface of the<br>land. We find out about the dominant extractive industries in the<br>different Arctic areas as well as the renewable natural resources that<br>the human inhabitants of the Arctic use in their livelihoods. The focus<br>in the lecture is on the ways in which these natural resources are<br>meaningful or problematic for human life in the Arctic, as well as<br>their significance beyond the Arctic for the rest of the planet. This<br>will inform an understanding of the significance of the Arctic for<br>broader global developments. |
| Literature           | <ul> <li>Chapter 1-3 of the book Southcott, C. et al. (eds) (2018) <i>Resources and Sustainable Development in the Arctic</i>. London: Routledge. <a href="https://doi.org/10.4324/9781351019101">https://doi.org/10.4324/9781351019101</a>.</li> <li>Suopajärvi, L. (2015) 'The right to mine? Discourse analysis of social impact assessments of mining projects in Finnish Lapland in the 2000s', <i>Barents Studies</i>, 1(3), pp. 36–54.</li> </ul>   |
| Key words            | Natural resources (oil, gas, minerals, wind, timber, fish, etc.)<br>Conflicts between different land use practices   |

| Title of the lecture | Excursion to Ounasvaara and Visit to the exhibition of the Pilke (8   |
|----------------------|---|
|                      | hours)  |
| Teacher              | Jukka Jokimäki & Marja-Liisa Kaisanlahti-Jokimäki   |
| Main content         | Natural history and use of arctic and boreal environments; Natural history of Rovaniemi/Ounasvaara; forestry and recreational use of boreal |
|                      | environments; boreal forest types and tree species  |
| Literature           |   |
| Key words            | Arctic; Boreal; Nature; Species; Threats; Climate change  |

| Title of the lecture | Governing the Arctic (2 hours)   |
|----------------------|--|
| Teacher              | Marlene Payva Almonte  |
| Main content         | The Arctic is not an empty space but home to a myriad of people, species<br>and ecoystems. This lecture introduces the students to the Arctic, its<br>biodiversity and its peoples and to some of the challenges the region as<br>well as its governance face. |
| Key words            | Arctic governance  |
| Literature           | Klaus Dodds & Mark Nuttall (2019). The Arctic: What Everyone Needs to Know, Oxford: Oxford University Press  |

| Title of the lecture | Arctic and Antarctic Information Resources (1 hour)  |
|----------------------|--|
| Teacher              | Vuontisjärvi Kati  |
| Main content         | Where to find information on Arctic and Antarctic issues? Where to find maps on Arctic and Antarctic? Where to find information on indigenous peoples? |
| Literature           |  |
| Key words            | Arctic and Antarctic literature, scientific information, information on indigenous peoples   |

| Title of the lecture | Land use in Sámiland (1 hours)  |
|----------------------|---|
| Teacher              | Nuccio Mazzullo   |
| Main content         | The lecture aims to give a brief overview, from an anthropological perspective, of land use issues related to Sámi reindeer herding and other practices in Sámiland, with a particular focus on a forestry-reindeer herding case study in Finnish Sámiland. |
| Literature           | Miggelbrink, J., Habeck, J. O., Mazzullo, N., & Koch, P. (2013). <i>Nomadic and indigenous spaces: productions and cognitions</i> . Ashgate.  |
| Key words            | Reindeer herding, forestry, Sámi rights, traditional livelihood, land-use conflicts   |

## ASPB 1102V24 Arctic Ecosystems and Adaptation of Species to Arctic Environment 5 ECTS Principal tutor Sari Stark

| Title of the lecture (30 hours) | Tundra and boreal forest ecosystems (6 h) |
|---------------------------------|---|
| Teacher                         | Mari Kuoppamaa                            |

| Main content         | The evolution and distribution of tundra and boreal forest ecosystems,<br>emphasizing vegetation, plant–animal interactions and natural and<br>anthropogenic disturbance patterns and processes  |
|----------------------|--|
| Key words            | Ecosystems, vegetation, plant-animal interactions, anthropogenic disturbance   |
| Title of the lecture | Marine productivity and biodiversity (3 h)   |
| Teacher              | Sari Stark   |
| Main content         | Introduction to Arctic oceanography and sea life from the microscopic<br>plankton to the large mammals, processes and global interactions affecting<br>marine productivity and biodiversity, changes in sea ice and how they<br>impact organisms and processes in the Arctic Ocean |
| Key words            | Marine productivity, marine biodiversity, marine ecosystems  |

| Title of the lecture | Natural Selection and Adaptation of Endothermic Vertebrate Animals<br>to Northern Environment (6 h)    |
|----------------------|--|
| Teacher              | Osmo Rätti   |
| Main content         | Evolution and the theory of natural selection, morphological and<br>behavioural adaptations of animals |
| Key words            | Evolution, Natural selection, Adaptation   |

| Title of the lecture | Physiological Adaptation of Endothermic Animals to Northern  |
|----------------------|--|
|                      | Environment (6 h)  |
| Teacher              | Päivi Soppela  |
| Main content         | Physiological and morphological adaptations of endothermic animals to<br>northern environment; temperature regulation, cold adaptation, energy<br>expenditure, hibernation, adipose tissues/fats, visual adaptation, reindeer,<br>humans, climate change |
|                      | Northern environment, cold climate, season, animals, adaptation, energy, thermogenesis, fats, brown fat  |
| Title of the lecture | Adaptation of plants to northern environment (3 h)   |
| Teacher              | Minna Turunen  |
| Main content         | Morphological and physiological adaptations of plants to northern<br>environment; responses and adaptations of plants to climate change  |
| Key words            | Northern environment, vegetation zone, plant, adaptation, timberline, climate change   |
| Title of the lecture | Snow in changing climate (6 h)   |
| Teacher              | Leena Leppänen, Sirpa Rasmus   |
| Main content         | Characteristics and evolution of seasonal snow cover, snow in changing climate, and role of snow as a part of the environment. Includes practicing snow measurements outside.  |

ASPB 1103V24: Arctic Governance and Law 5 ECTS Principal tutor: Punam Noor

| Title of the lecture | International Environmental Law in the Arctic (8 hours)   |
|----------------------|---|
| Teacher              | Marlene Payva Almonte   |
| Main content         | <ul> <li>Significance of Environmental Law in the Arctic</li> <li>International Law and Environment</li> <li>International Environmental Law: Law making process</li> <li>Basic Principles of International Environmental Law</li> <li>Reference to international regulations (and cases) applicable to the Arctic</li> <li>International Law and International Environmental Law from a critical perspective</li> </ul>  |
| Literature           | <ul> <li>Loukacheva, N. Ed. 2010. Polar Law Textbook. TemaNord. Available at: http://norden.diva-portal.org/smash/get/diva2:701555/FULLTEXT01.pdf</li> <li>Loukacheva, N. Ed. 2013. Polar Law Textbook II. TemaNord. Available at: http://norden.diva-portal.org/smash/get/diva2:701016/FULLTEXT01.pdf</li> <li>Roach, J. Ashley (2009). International Law and the Arctic: A Guide to Understanding the Issues. Southwestern Journal of International Law 15 (2): 301-326.</li> <li>Sands, P. et al (2018). Principles of International Environmental Law. Cambridge University Press.</li> </ul> |
| Key words            | International environmental law, principles of environmental law, treaties and framework convention, Arctic, indigenous peoples, human rights, biodiversity, marine environment.  |

| Title of the lecture | International Climate Change Law and the Arctic (8 hours)   |
|----------------------|---|
| Teacher              | Noor Punam  |
| Main content         | <ul> <li>Objectives, Methods and Principles of International Climate Change<br/>Law</li> <li>Phases of the UN Climate Regime, Compliance and Enforcement in the<br/>Climate Change Regime</li> <li>Kyoto Protocol and Paris Agreement and the obligations of Arctic<br/>states towards them</li> <li>Arctic Indigenous peoples' participation in shaping International<br/>Climate Change Law</li> </ul>  |
| Literature           | <ul> <li>Bodansky, D., Brunnee, J. &amp; Rajamani, L (2017). International Climate<br/>Change Law. Oxford: OUP. Chapters 2, 5 and 7.</li> <li>Maguire, R (2013). Foundations of International Climate Law. In Erkki<br/>J Hollo, Kati Kulovesi &amp; Michael Mehling (Eds.) Climate Change and<br/>the Law. Springer.</li> <li><u>Mayer</u> Benoit (2018)<i>The International Law on Climate Change</i>,<br/>Cambridge University Press. Chapters 3, 4, 5 and 7.</li> </ul> |

| Key words | Arctic, climate change, indigenous peoples, human rights, participation |
|-----------|---|
|           |   |

| Title of the lecture | International Law of the Sea in the Arctic (2 hours)  |
|----------------------|---|
| Teacher              | Noor Punam  |
| Main content         | The history of the international law of the sea and its codification. The contemporary legal regime governing maritime areas in the Arctic, in particular the 1982 United Nations Convention on the Law of the Sea (LOSC); maritime boundary delimitation, the rules governing different maritime zones, navigational rights and freedoms, protection and preservation of marine environment and IMO Conventions.   |
| Literature           | <ul> <li>Gavrilov, Viatcheslav V. (2015). Legal Status of the Northern Sea Route and<br/>Legislation of the Russian Federation: A Note. Ocean Development and<br/>International Law 46 (3): 256–263.</li> <li>Roach, J. Ashley (2009). International Law and the Arctic: A Guide to<br/>Understanding the Issues. Southwestern Journal of International Law 15 (2):<br/>301-326.</li> <li>Steinberg, Philip E. (2014) Steering between Scylla and Charybdis: The<br/>Northwest Passage as Territorial Sea. Ocean Development and International<br/>Law 45 (1): 84-106.</li> <li>Yoshifumi Tanaka (2019). International Law of the Sea, Cambridge: Cambridge<br/>University Press</li> </ul> |
| Key words            | law of the sea, Arctic, coastal states, navigational rights, marine pollution   |

| Title of the lecture | Arctic cooperation and resource governance (6 hours)   |
|----------------------|--|
| Teacher              | Marco Volpe  |
| Main content         | <ul> <li>Overview of the post-Cold War history and of the current status of<br/>Arctic politics and the regionalisation process</li> <li>The institutions of Arctic cooperation and their modes of functioning<br/>(focus on the Arctic Council and regional law-making processes).</li> <li>Actors in Arctic regional politics.</li> <li>Multilevel governance of Arctic resource extraction</li> </ul> |
| Literature           | • Durfee, M. and R. L. Johnstone (2019). Arctic Governance in a<br>Changing World. Rowman and Littlefield. Chapters 3 (Arctic Players)<br>and 5 (Arctic Economies and Resources).  |
| Key words            | Arctic, Arctic Council, cooperation, Barents, politics, governance, resources  |

## ASPB 1104V24 People, Cultures and Identities of the Arctic 5 ECTS Principal tutor: Nuccio Mazzullo

| Title<br>of the<br>lectur<br>e | Of reindeer herding, place and people: issues of perception among Finnish<br>Northern Sámi   |
|--------------------------------|--|
| Teach<br>er                    | Nuccio Mazzullo  |
| Main<br>conte<br>nt            | The lecture shall explore, from an anthropological perspective, issues of identity and indigeneity among the Sámi people. It shall be an ethnographic account of herding, migration and social changes among the Sámi people of Finnish Lapland in order to illustrate the importance of reindeer herding to this day as a subsistence that goes beyond economic analyses and that calls for a more holistic approach. Despite a weakened economic importance, reindeer herding still plays a very important role in the social and cultural dimensions of Sámi society.   |
| Litera<br>ture                 | Ingold Tim: 1997, <i>Work, identity and Environment: Finns and Saami in Lapland, in</i><br><i>Arctic Ecology and Identity</i> , ed. S.A. Mousalimas, Akadémiai Kiadó, Budapest -<br>International Society for Trans-Oceanic Research, Los Angeles.<br>Ingold Tim: <i>The perception of the environment: essays on livelihood, dwelling and skill.</i><br>London: Routledge, 2000. (Chapters 1 and 10)<br>Ingold Tim: 2005, <i>Epilogue: Towards a Politics of Dwelling.</i> In <u>Conservation &amp; Society</u><br>[serial online];vol.3:2 pp.501-406. Available from:<br>http://www.conservationandsociety.org/downloadpdf.asp?issn=0972-<br><u>4923;year=2005;volume=3;issue=2;spage=501;epage=508;aulast=Ingold:type=2</u><br>Mazzullo, N.: 2010 – <i>More than meat on the hoof? Social significance of reindeer</i><br><i>among Finnish Saami in a rationalized pastoralist economy</i> – in <u>Good to Eat, Good to</u><br>Live with: Nomads and Animals in Northern Eurasia and Africa, Eds. Florian Stammler<br>and Hiroki Takakura, Northeast Asian Study Series 11, Center for Northeast Asia<br>Studies (CNEAS), Tohoku University, Sendai, Japan, pp. 101–119.<br>Mazzullo, N. and Ingold, T.: 2008 – <i>Being Along: Place, Time and Movement among</i><br><i>Sámi People.</i> In: <u>Mobility and Place: Enacting European Peripheries</u> , Edited by Jørgen<br>Ole Bærenholdt and Brynhild Granås, Ashgate Publishing Ltd, Aldershot, U.K.<br>Mazzullo, N.: 2009: <i>Sápmi: a symbolic re-appropriation of Lapland as Saamiland</i> , in<br><u>Máttut – Máddagat: The Roots of Saami Ethnicities, Societies and Spaces / Places</u> . Ed.<br>Tiina Äikäs, publication of Giellagas Institute, 12; University of Oulu, Oulu, Finland,<br>pp174-185 |
| Key<br>words                   | Perception, traditional livelihoods, place and place-making  |
| Title of lecture               | in relations to natural resources  |
| Teache<br>Main<br>content      | r         Panu Itkonen           The lecture describes changes in Skolt Sami forms of livelihood during last hundred years. Moreover, the lecture analyzes changes in Skolt Sami people's relation to nature and natural resources.  |

| Literature | <ul> <li>Pelto, Pertti J. 1973: The Snowmobile Revolution: Technology and Social Change<br/>in the Arctic. Menlo Park California: Cummings Publishing Company.</li> <li>Ingold, Tim 1976. The Skolt Lapps Today. Cambridge: Cambridge University<br/>Press.</li> <li>Itkonen, Panu 2012. Skolt Sami Cooperation: Forms of Reciprocity in Work<br/>situations of the Sevettijärvi Reindeer Herding Community at the Beginning of the<br/>21st Century and Actions of State Administration. University of Helsinki: Unigrafia</li> </ul> |
|------------|--|
| Key words  | Notions of Northerness/Arcticness, identity building in arctic Russia  |

| Title of the lecture | Greenland: challenges of a changing world.  |
|----------------------|---|
| Teacher              | Daniela Tommasini   |
| Main<br>content      | A general introduction about Greenland, geography and history will be followed by<br>a summary about the several changes impacting arctic communities.<br>Climate fluctuations and changes contribute to affect traditional activities e.g.<br>hunting which in turn may affect culture and identity;<br>Economic activities and the search for alternatives like tourism and natural resources<br>give way to a vivid debate amid the society, in turn experiencing changes, like urban<br>versus rural. Taking into account also the demographic changes the seminar aims at<br>linking the different aspects in order to stimulate a discussion, comparison and<br>suggestions.  |
| Literature           | <ul> <li>2022: The Dog-Hunter Alliance in two Hunting Communities of Greenland. Journal of Arctic Studies, 5, P. 272-300. ISBN 978-7-5426-7796-9.</li> <li>2020: Impact of Climate and Economic Changes of Inuit's Traditional Hunting. On the Basis of Research of Greenlandic Peripheral Communities. Journal of Guangxi University for Nationalities. Philosophy and Social Sciences Edition: 17-29. ISSN 1673-8179; CN 45-1349/C</li> <li>2019: Experiencing the Arctic: European and Chinese tourists in Greenland. A Comparative Study. Journal of Arctic Studies: 170-185. Arctic Studies Centre, Liaocheng University, Social Sciences Academic Press. ISSN 978-7-5201-5638-7 2012 : Le tourisme dans l'Arctique - Tourism in the Arctic. Études/Inuit/Studies, 36(2). ISSN: 0701-1008. (Guest editor)</li> <li>2011: Tourism Experiences in the Peripheral North, Case Studies from Greenland. Monograph. Inussuk, Arctic Research Journal. Government of Greenland, Ministry of Education and Research, Nuuk, 2. <a href="https://naalakkersuisut.gl/~/media/Nanoq/Files/Attached%20Files/Forskning/Inussuk/DK%200g%20ENG/inussuk%202%202011.pdf">https://naalakkersuisut.gl/~/media/Nanoq/Files/Attached%20Files/Forskning/Inussuk/DK%200g%20ENG/inussuk%202%202011.pdf</a></li> </ul> |
| Key words            | Greenland; changes; economics and socio-cultural aspects  |

| Title of the | People and the land in the Arctic  |
|--------------|--|
| lecture      |  |
| Teacher      | Florian Stammler   |
| Main content | It is no secret that land is the key resource for Arctic indigenous peoples to continue their livelihoods forming the base of Arctic cultures. However, only |

|            | few if any indigenous peoples had formal ownership of their land before they<br>had to defend their rights to incoming people who advanced intensive land use<br>in the Arctic. This lecture(s) introduces some key examples of indigenous<br>perceptions of land rights, land use practices and cooperation among different<br>indigenous users of the same land. In these examples, rather than a notion of<br>formal ownership, the entitlements of people to the land base on knowing its<br>resources and the cooperation in engaging with them in daily practice. Using a<br>case-study approach from the Yamal-Nenets, the Yakutian Evenki, and the<br>Kamchatkan Eveny with some comparative outlook to the Norwegian Lule-<br>Sámi, we shall explore together the multiple layers that lie behind current<br>notions of land ownership in the Arctic.  |
|------------|---|
| Literature | <ul> <li>Osherenko, G. (2001). Indigenous Rights in Russia: Is Title to Land<br/>Essential for Cultural Survival? Georgetown International Environmental<br/>Law Review, 13(3), 695–734.</li> <li>Jordan, P. (2003). Material Culture and Sacred Landscape. The<br/>Anthropology of the Siberian Khanty. (D. S. Whitley, Ed.). Oxford,<br/>Walnut Creek: Alta Mira Press. Read chapters 7 and 8</li> <li>Anderson, D. G. (1998). Property as a way of knowing on Evenki lands<br/>in Arctic Siberia. In C. M. Hann (Ed.), Property Relations: Renewing the<br/>anthropological tradition (pp. 64–84). New York: Cambridge University<br/>Press.</li> <li>Vitebsky, P. (2005). Reindeer People. Living with Animals and Spirits in<br/>Siberia. London: Harper Collins. read the Chapter: "civilising the<br/>nomads"</li> <li>Stammler, F., &amp; Ivanova, A. (2016). Confrontation, coexistence or co-<br/>ignorance? Negotiating human-resource relations in two Russian regions.<br/>The Extractive Industries and Society, 3(1), 60–72.<br/>https://doi.org/10.1016/j.exis.2015.12.003</li> </ul> |
| Key words  | Indigenous, land rights, issues of ownership and cooperation  |

| Title of the lecture | Sámi Religion, Culture, Identity and Art   |
|----------------------|--|
| Teacher              | Francis Joy  |
| Main content         | The aims of the lecture are to examine the role and function art plays in relation to an embedded knowledge system, which is representative of identity, culture and cultural memory, through an examination of different art forms and landscapes.  |
| Literature           | <ul> <li>Helander-Renvall, E. (2010) Animism, personhood and the nature of reality:<br/>Sami perspectives. In Polar Record 46 (236): 44–56.</li> <li>Joy, Francis 2016. THE Vitträsk rock painting at Kirkkonumni and the<br/>theory of a Sámi cosmological landscape. In Suomen Antropologi, vol.<br/>41:3</li> <li>Joy, Francis. 2017. Noaidi drums from Sápmi, rock paintings in Finland and<br/>Sámi cultural heritage – an investigation. In Polar Record. Cambridge<br/>University Press. doi:10.1017/S0032247416000917</li> <li>Lahelma, Antti. 2005. "Between the worlds. Rock art, landscape and<br/>shamanism in Subneolithic Finland". Article in: Norwegian<br/>Archaeological Review, Volume 38, No1. Routledge Taylor &amp; Francis,<br/>29-47.</li> </ul> |

| Key words | Art, embedded knowledge system, identity, culture, cultural memory |
|-----------|--|
|           |  |

| Title of the lecture | Cultures, identities and peoples of Siberia and the Russian North  |
|----------------------|--|
| Teacher              | Stephan Dudeck   |
| Main content         | The lecture deals with the history of the category of the Small Numbered<br>Indigenous Peoples of the Russian North, Siberia and the Far East in Czarist Russia,<br>the Soviet Union and post-Soviet Russia. We will have a look into the main forms<br>of nature use in the Russian Arctic - reindeer herding, fishing, extractive industries<br>etc. The lecture gives an overview of the main branches of economy but also<br>cultural practices like religion, oral traditions and languages among Siberian<br>peoples. It will provide an historic overview of the colonisation of the Russian<br>North from military conquest through scientific exploration to industrial<br>development.   |
| Literature           | <ul> <li>Anderson, D. G. 2004. "Nationality and 'Aboriginal Rights' in Post-Soviet Siberia."<br/>In Circumpolar Ethnicity and Identity, edited by Takashi Irimoto and Takado<br/>Yamada, 247–67. Senri Ethnological Studies 66.</li> <li>Donahoe, Brian, Joachim Otto Habeck, Agnieszka Halemba, and István Sántha.</li> <li>2008. "Size and Place in the Construction of Indigeneity in the Russian Federation."<br/>Current Anthropology 49 (6): 993–1020.</li> <li>Sokolovskiy, Sergey V. 2013. "Russian Government Policies and Minority<br/>Identities." In Managing Ethnic Diversity in Russia, edited by Benedikt Harzl and<br/>Oleh Protsyk, 173–88. New York: Routledge.</li> <li>Stammler-Gossmann, A. 2009. "Who Is Indigenous? Construction of<br/>'Indigenousness' in Russian Legislation." International Community Law Review 11<br/>(1): 69–102.</li> </ul> |
| Key words            | Economy, religion, oral traditions, languages, Siberian peoples  |

| Title of the lecture | Sámi handicraft and communities of practice  |
|----------------------|--|
| Teacher              | Nuccio Mazzullo  |
| Main content         | The lecture will address issues of learning and sharing of practices of making<br>handicraft among the Sámi. We shall compare with other systems of learning<br>and with the influences of tourism and mass production. We shall also address<br>the differences between the notion of handicraft and that of art.   |
| Literature           | <ul> <li>INGOLD Tim 2013, Making: Anthropology, Archaeology, Art and<br/>Architecture. Routledge</li> <li>KELLER C.M. and J.D. KELLER: 1996; Cognition and tool use: the<br/>blacksmith at work; Cambridge: Cambridge University Press.</li> <li>LAVE Jean: 1991; The culture of acquisition and the practice of<br/>understanding; in J.W. Stigler, R.A. Shweder and G. Herdt (eds.) <u>Cultural</u><br/>Psychology, Cambridge: Cambridge University Press, pp. 309-327.</li> </ul> |
| Key words            | Situated learning, handicraft, cognitivism, handicraft and arts  |

| Seminar | Group presentations on four different themes |
|---------|--|
| Teacher | Nuccio Mazzullo et al.                       |

| Main Themes | <ul> <li>Worldview in the Arctic: religion, belief, shamanism</li> <li>Knowledge, knowledge systems and traditional subsistence activities.</li> <li>Different discourses on the concept of indigeneity</li> <li>Issues of identity, Space and Territoriality</li> </ul> |
|-------------|--|
| Literature  | Course literature  |
| Key words   | Team-work, presentation skills, synthesis skills.  |
|             |  |

### ASPB 1105V24 Human Rights and Security in the Arctic 5 ECTS Principal tutor: Dele Raheem

| Title of the lecture | Introduction to Human Rights and Human Security in the Arctic (8 h)        |
|----------------------|--|
| Teacher              | Marlene Payva-Almonte  |
| Main content         | Arctic governance and international law, global and local threats to human |
|                      | security in the Arctic, human rights obligations                           |
| Literature           | - Durfee & Johnstone (2019). Arctic governance in a changing world.        |
|                      | Rowman & Littlefield.  |
| Key words            | Arctic governance, security, safety, human rights                          |

| Title of the lecture | Food Resilience and Sovereignty in the Arctic (9 h)  |
|----------------------|--|
| Teacher              | Dele Raheem  |
| Main content         | In this lecture we will explore why the food system need to change,<br>understand the relationship between climate change, agriculture and food<br>security. What does food sovereignty entail in the Arctic context? What is<br>the common language between policy makers, academics, and grassroots<br>activists towards resilience and food security. The lecture will include a<br>field trip to a food processing unit (6 h)  |
| Literature           | <ul> <li>Hossain, K., Raheem, D. and Cormier, S. 2018. Food security<br/>Governance in the Arctic-Barents region. Book published by Springer<br/>Nature. http://www.springer.com/us/book/9783319757551#aboutBook</li> <li>Cormier, S and Raheem, D. 2018. Food security in the Barents region.<br/>Book chapter published by Routledge. https://www.routledge.com/Society-<br/>Environment-and-Human-Security-in-the-Arctic-Barents-Region/Hossain-<br/>Cambou/p/book/9780815399841 (e-book).</li> <li>The 2016 State of Food and Agriculture: Climate change, agriculture and<br/>food security http://www.fao.org/3/a-i6030e.pdf</li> <li>Hossain, K., Hermann, T. and Raheem, D. 2018. Food (in)Security across<br/>the Circumpolar Arctic. Book Chapter 38 in Handbook on Arctic Security.<br/>Routledge.</li> <li>Raheem, D. 2018. Food and nutrition as a measure of resilience in the<br/>Barents region. Urban Science. 2018, 2, 72.<br/>https://doi.org/10.3390/urbansci2030072. Multidisciplinary Digital<br/>Publishing Institute (MDPI), Switzerland (open access).</li> </ul> |
| Key words            | food security, food safety, nutrition, climate change, food, sustainability  |

| Title of the lecture | Human security: questions concerning connectivity and digitalization           |
|----------------------|--|
|                      | (4h).  |
| Teacher              | Juha Saunavaara  |
| Main content         | This lecture approaches questions concerning human security in the Arctic      |
|                      | from the perspective of connectivity, telecommunications, and                  |
|                      | cybersecurity. Issues to be discussed include but are not limited to:          |
|                      | planning and construction of telecommunications/digital infrastructure         |
|                      | importance of digital services, digital divide, and special challenges related |
|                      | to Arctic environmental conditions and long distances.                         |
| Literature           | M. Salminen, G. Zojer & K. Hossain (eds.), Digitalisation and Human            |
|                      | Security – A Multi-Disciplinary Approach to Cybersecurity in the               |
|                      | European high North. Palgrave Macmillan, 2020.                                 |
| Key words            | Human security, telecommunications, digitalization, connectivity               |

| Title of the lecture | Introduction to Cultural Heritage Law and Heritage rights of Russian           |
|----------------------|--|
|                      | Arctic communities (3 h)   |
| Teacher              | Karolina Sikora  |
| Main content         | The lecture will address the basics of international cultural heritage law and |
|                      | explore the issue of human rights approach to cultural heritage. The           |
|                      | theoretical discussion will be put in the context of rights to heritage of     |
|                      | Russian Arctic communities   |
| Literature           | - Blake, J. (2015). Cultural Heritage and Human Rights in: J.Blake             |
|                      | "International Cultural Heritage Law". Oxford University Press.                |
|                      | - Waterton, E. and L. Smith (2009). There is no such thing as heritage. In     |
|                      | Waterton, E. and L. Smith (eds) "Taking Archaeology out of heritage".          |
|                      | Cambridge Scholars Press.  |
| Key words            | international cultural heritage law, indigenous rights, human rights           |
|                      | dimension of heritage  |

**Optional courses 0-13** 

### ASPB 1107V24 Optional course 5 ECTS Indigenous (Sámi) spirituality and religious beliefs (16 h + fieldwork) Principal tutor: Dr. Francis Joy

| Title of<br>Lecture | Lecture 1. The Sámi sacrificial tradition past and present. (3 hours).  |
|---------------------|---|
| Teacher             | Francis Joy   |
| Main<br>content     | The roles and functions of holy places as encountered in historical literature during missionizing and from within contemporary culture |
| Key<br>words        | Sieidi, seita, bones, wooden posts, hunting, fishing, spirits   |

| Literature | Äikäs, Tiina; Salmi, Anna-Kaisa (2013) The Sieidi is a Better Altar / the Noaidi Drum's a  |
|------------|--|
|            | Purer Church Bell: Long Term Changes and Syncretism at Sámi Offering Sites World   |
|            | Archaeology 45 (1), 64-82.   |
|            | Äikas, Tiina (2019). Religion of the past or living heritage? Dissemination of Knowledge on  |
|            | Sámi Religion in Museums in Northern Finland. The Journal Nordic Museology, Volume   |
|            | 27, Number 3.  |
|            | Äikäs, Tiina. (2015). From Boulders to Fells. URL:   |
|            | http://www.sarks.fi/masf/masf_5/masf_5.html  |
|            | <b>Pennanen, Jukka</b> . (2003). The Sacred Sieidi – A Link Between Human Beings and the Divinities of Nature. In Pennanen, Jukka., & Näkkäläjärvi, Klemetti. (Eds.) <i>Siidastallan. From Lapp communities to modern Sámi life</i> . Publication of the Inari Sámi Museum 5, pp. 156-157. |

| Title of the  | Lecture 2 Drum-time. Sámi shaman drums past and present. (3 h)  |  |
|---|---|--|
| lecture   | Detail of an office sum shannan ar ans puse and prosent (o ii)  |  |
| Teacher   | Francis Joy   |  |
| Main<br>content   | An examination of prehistoric rock art in Finland and Alta, Finnmark Norway and in<br>what ways images within these sites appear to be related to Sámi cosmological<br>landscapes painted n Sámi shaman drums from the seventeenth century. |  |
| Literatur   | Joy, Francis. (2018). Sámi Shamanism, Cosmology and Art as Systems of Embedded  |  |
| e   | Knowledge. Doctoral Dissertation. Acta Universitatis Lapponiensis 367. The  |  |
|   | University of Lapland. URL:   |  |
|   | http://lauda.ulapland.fi/handle/10024/63178   |  |
|   | Nunez, Milton. (1995). Reflections of Finnish Rock Art and Ethnohistorical Data, in:FennoscandiaArchaeologicaXXI:123-135.URL: <a href="http://www.sarks.fi/fa/PDF/FA12_123.pdf">http://www.sarks.fi/fa/PDF/FA12_123.pdf</a>                 |  |
| Lahelma, Antti. (2008). A Touch of Red - Archaeological and E<br>Approaches to Interpreting Finnish Rock Paintings<br>https://helda.helsinki.fi/bitstream/handle/10138/19406/atoucho.pdf?sequen<br>owed=y |   |  |
|   | Sveen, Arvid. (1996) Rock Carvings; Jiepmaluokta Hjemmeluft, Alta. Finnmark: Vadso.   |  |
| Key   | Rock paintings, rock carvings, horns, triangular headed figures, cosmology,   |  |
| words   | shamanism   |  |

| Title   | Lecture 3. Rock art, Sámi shamanism and cosmology. (3 hours) |
|---------|--|
| of the  |  |
| lecture |  |
| Teach   | Francis Joy  |
| er      |  |

| Main         | The sumbasis on the lecture is to look at in what were and he what means historical   |  |
|--------------|---|--|
|              | The emphasis on the lecture is to look at in what ways and by what means historical   |  |
| conten       | Sámi shaman drums and their content have influenced Sámi drum makers today.   |  |
| t            |   |  |
| Literat      | Joy, Francis. (2018). Sámi Shamanism, Cosmology and Art as Systems of Embedded  |  |
| ure          | Knowledge. Doctoral Dissertation. Acta Universitatis Lapponiensis 367. The University   |  |
|              | of Lapland. URL:  |  |
|              | http://lauda.ulapland.fi/handle/10024/63178   |  |
|              | <b>Pentikäinen, Juha.</b> (2010). The Shamanic Drum as Cognitive Map. Cahiers de Littérature Orale [En ligne]. URL: http://clo.revues.org/445; DOI: 10.4000/clo.445, pp. 1-12.  |  |
|              | Manker, Ernst Mauritz. (1938). Die Lappische Zaubertrommel. Eine Ethnologische<br>Monographie.1, Die Trommel als Den-kmal Materieller Kultur. Acta Lapponica; 1,<br>Stockholm: Thule.   |  |
|              | Manker, Ernst Mauritz. (1950). Die Lappische Zaubertrommel: Eine Ethnologische<br>Monographie. 2, Die Trommel als Urkunde Geistigen Lebens. Acta Lapponica; 6.<br>Stockholm: Gebers.  |  |
|              | Both of these books are in Rovaniemi City Library Lapland section and although<br>published in German, you can see photographs of the remaining drums that are in<br>museums across Europe.   |  |
|              | Ahlbäck, Tore and Bergman, Jan. (eds. (1987). The Saami Shaman Drum: Papers Based<br>on the Symposium on Saami Religion Held at Åbo, Finland, on the 16th and 18th of<br>August 1984. Published by The Donner Institute for Research in Religious and Cultural<br>History. URL:<br>https://www.doria.fi/bitstream/handle/10024/134162/The%20Saami%20Shaman%20Dr |  |
|              | <u>um%201991%20OCR.pdf?sequence=2</u>   |  |
| Key<br>words | Shaman drums, cosmological landscapes, divination, contemporary drums, Sámi artists   |  |

| Title of | Lecture 4. Sámi cultural heritage and tourism in Finland. (3 hours)                    |  |
|----------|--|--|
| the      |  |  |
| lecture  |  |  |
| Teache   | Francis Joy  |  |
| r        |  |  |
| Main     | An examination of a multitude of issues surrounding the reproduction and               |  |
| content  | appropriation of Sámi cultural heritage into tourism, which pertains to the misuse and |  |
|          | abuse of Sámi traditions and practices.  |  |
| Literat  | Joy, Francis. (2018). Sámi Shamanism, Cosmology and Art as Systems of Embedded         |  |
| ure      | Knowledge. Doctoral Dissertation. Acta Universitatis Lapponiensis 367. The University  |  |
|          | of Lapland. URL: http://lauda.ulapland.fi/handle/10024/63178                           |  |
|          |  |  |
|          | Mattila, Tuomas. (2018). Needs of the Sámi People for Intellectual Property Protection |  |
|          | from the Viewpoint of Copyright and Trademarks. URL:                                   |  |

|              | https://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/161206/OKM_40_18_Ne<br>of the Sami_people-WEB111218.pdf?sequence=1&isAllowed=y<br>Guttorm, Gunvor. (2007). Duodji – Sami Handicrafts – Who Owns the Knowledge<br>the Works? In: Solbakk, John T. Traditional Knowledge and Copyright. Sámikop<br>Karas-jok. Waasa Graphics Oy, pp. 61-94. |  |
|--------------|--|--|
|              | Joy, Francis. (2020). Sámi Cultural Heritage and Tourism in Finland. In: Tennberg,<br>Monica., Lempinen, Hanna. & Pirnes, Susanna. (eds.). <i>Resources, Social and Cultural</i><br><i>Sustainabilities in the Arctic.</i> 1. ed. Oxon: <u>Routledge</u> . (Routledge Research in Polar<br>Regions): 144-162.  |  |
| Key<br>words | Cultural appropriation, drums, figures, symbols, tourism, fake art.  |  |

| Title of the lecture | Seminar class and presentations (4 hours)  |  |
|----------------------|--|--|
| Teacher              | Francis Joy  |  |
| Main<br>content      | Students will present their work individually or in groups that will cover one of the topics presented within the lecture series. Each person will be given 5 minutes to speak. What they have learned will be assessed through their work.  |  |
| Key words            | Sámi traditions, spiritual practices, tourism, rock art, shamanism, appropriation, learning outcomes   |  |
| Literature           | <ul> <li>Lehtola, VeliPekka. 2003. From Heritage to Modern Art – Spiritual Heritage – the Starting Point of Today's Art. In Jukka Pennanen &amp; Klemetti Näkkäläjärvi (eds) <i>SIIDDASTALLAN: From Lapp Communities to Modern Sámi Life</i>. Jyväskylä: Gummerus Kirjapaino Oy, pp. 162–164.</li> <li>Porsanger, Jelena. 2003. A Close Relationship to Nature – the Basis of Religion. In Jukka. Pennanen &amp; Klemetti Näkkäläjärvi (eds) <i>SIIDDASTALLAN: From Lapp Communities to Modern Sámi Life</i>. Jyväskylä: Gummerus Kirjapaino Oy, pp. 162–164.</li> <li>Porsanger, Jelena. 2003. A Close Relationship to Nature – the Basis of Religion. In Jukka. Pennanen &amp; Klemetti Näkkäläjärvi (eds) <i>SIIDDASTALLAN: From Lapp Communities to Modern Sámi Life</i>. Jyväskylä: Gummerus Kirjapaino Oy, pp. 151–155.</li> <li>Joy, Francis. 2020. Sámi Cultural Heritage and Tourism in Finland. In M. Tennberg, H. Lempinen &amp; S. Pirnes (Eds) <i>Resources, Social and Cultural Sustainabilities in the Arctic</i>. Oxon: Routledge, pp. 144–162.</li> <li>Joy, Francis. 2021. <i>To What Extent is the Polarization of the Sámi People Visible in Finland in Connection with Appropriation of their Spiritual Traditions and Cultural Heritage into Tourism?</i> AGON - Pohjoinen Tiede- ja Kulttuurilehti. Edited by Olli Koskela and Salomo Juupaluoma, pp. 1-33. URL: </li></ul> |  |

| handicrafts and the Sámi dresses <i>Publications of the Ministry of Education and Culture,</i><br>https://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/161206/OKM_40_18_Ne eds_of_the_Sami_people-WEB111218.pdf  |
|--|
| Joy, Francis. (2018). Sámi Shamanism, Cosmology and Art as Systems of Embedded Knowledge. Doctoral Dissertation. Acta Universitatis Lapponiensis 367. The University of Lapland. Available at: http://lauda.ulapland.fi/handle/10024/63178.  |
| Joy, Francis. (2017). Noaidi Drums from Sápmi, Rock Paintings in Finland and Sámi<br>Cultural Heritage: an Investigation. <i>First View Article / Polar Record: A Journal of</i><br><i>Arctic and Antarctic Research</i> , pp. 1–20. Available at:<br>http://dx.doi.org/10.1017/S0032247416000917.   |
| Nunez, Milton. (1995). Reflections of Finnish Rock Art and Ethnohistorical Data. In<br>Fennoscandia Archaeologica XXI: 123–135. Available at:<br>http://www.sarks.fi/fa/PDF/FA12_123.pdf.<br>Lahelma, Antti. 2008. A touch of red: archaeological and ethnographic approaches<br>to interpreting Finnish rock paintings. Suomen muinaismuistoyhdistys ry - Finska<br>fornminnesföreningen rf. The Finnish Antiquarian Society. Iskos 15. The Finnish<br>Antiquarian Society, Helsinki. |
| Äikäs, Tiina. & Salmi, Anna-Kaisa (2013). The Sieidi is a Better Altar / the Noaidi<br>Drum's a Purer Church Bell: Long Term Changes and Syncretism at Sámi Offering<br>Sites. <i>World Archaeology, 45 (1):</i> 64–82.  |
| Äikas, Tiina. (2019). Religion of the past or living heritage? Dissemination of Knowledge on Sámi Religion in Museums in Northern Finland. <i>The Journal Nordic Museology, 27 (3)</i> . Available at: https://www.academia.edu/41852109./Religion_of_the_past_or_living_heritage_Di ssemination_of_knowledge_on_S%C3%A1mi_religion_in_museums_in_Northern _Finland.   |
| Pulkkinen, Risto., Kulonen, Ulla-Maija. & Seurujärvi-Kari, Irja. (Eds) (2005). <i>The Saami: A Cultural Encyclopedia</i> . Helsinki: Finnish Literature Society-SKS.   |
| Whitaker, Ian 1957. The Holy Places of the Lapps (English summary). In Ernst Manker, Lapparnas Heliga Ställen: Kultplaster och Offerkult i Belysning av Nordiska Museets och Landsantikvariernas fältundersökningar. Acta Lapponica; 13. Stockholm: Geber  |

#### ASPB 1111V24 Human-Nature Relations in Arctic Urban Development 5 ECTS Principal tutor: Monica Tennberg

| Title of the lecture | What is a city? (2 hours) |
|----------------------|---------------------------|
| Teacher              | Monica Tennberg           |

| Main content | Introduction to Arctic cities and urban development; presentation of central concepts; and a group task about urban nature |
|--------------|--|
| Reading task | Hemmersam, P. (2016) Arctic architectures. Polar Record 52 (265): 412–422.   |
| Keywords     | Arctic city, urban development, urbanization, urbanism, urban nature   |

| Title of the lecture | A city and change – a walking tour in the Rovaniemi city center (2 hours)                      |
|----------------------|--|
| Teacher              | Monica Tennberg  |
| Main content         | A walking tour in the city center; discussion about development,<br>history and memory sites   |
| Reading task         | Annanpalo, P. (1998) Rovaniemi. 8000 years of international history.<br>The city of Rovaniemi. |
| Keywords             | urban landscape, urban history, memory environments, memory sites                              |

| Title of the lecture | What makes a city arctic? (2 hours)  |
|----------------------|--|
| Teacher              | Monica Tennberg  |
| Main content         | Introduction to Arctic and urban photography; discussion on urban arcticness based on photos taken or brought by students. |
| Reading task         | Rose, G. (2014) Visual Culture, Photography and the Urban: An<br>Interpretive Framework. Space and Culture.                |
| Keywords             | urban arcticness, urban photography, visual representation   |

| Title of the lecture | Urban nature in everyday life – a walking tour in the Arctic garden  |
|----------------------|--|
| Teacher              | Monica Tennberg  |
| Main content         | Introduction to the history of the Arctic garden; a walk in the garden;<br>and an exercise in sensory walking  |
| Reading task         | Aula, I. (2021). Discovering Weedy Landscapes as Sensory<br>Commons. Dimensions of Architectural Knowledge.<br><u>https://doi.org/10.14361/dak-2021-0213</u> |
| Keywords             | urban nature, urban human-nature relations, sensory walking  |

| Title of the lecture | Urban metabolism (2 hours) |
|----------------------|----------------------------|

| Teacher      | Hannah Strauss-Mazzullo  |
|--------------|--|
| Main content | Introduction to the concept of urban metabolism; a group task focusing on<br>urban water and waste management                      |
| Reading task | Kaika, M. (2005) Nature as the urban uncanny. Chapter 4. In M. Kaika,<br>City of flows: modernity, nature and the city. Routledge. |
| Keywords     | urban metabolism, water management, waste management   |

| Title of the lecture | Urban conflicts (2 hours)   |
|----------------------|---|
| Teacher              | Monica Tennberg   |
| Main content         | Introduction to urban nature-related conflicts; the case of Kemijoki<br>River; a group task on urban conflicts  |
| Reading task         | Tennberg, M. (2022). The "International" in Water–Society Relations:<br>A Case Study of an Arctic Urban Watershed. In M. Lehtimäki, A.<br>Rosenholm, E. Trubina, & N. Tynkkynen (Eds.), <i>Cold Waters:</i><br><i>Tangible and Symbolic Seascapes of the North</i> (pp. 89-104).<br>Springer. |
| Keywords             | urban conflicts, River Kemijoki, river restoration  |

### ASPB 1112V24 Climate and Food Security in the Arctic with global consequences 5 ECTS

| Title of the lecture | The complexity of food system and implications (3 hours)   |
|----------------------|--|
| Teacher              | Dele Raheem  |
| Main content         | Introduction to climate change and food security. The urgent need for collaborative efforts at a global level.   |
| Literature           | <ul> <li>Bogdanova, E., Andronov, S., Soromotin, A., Detter, G., Sizov, O.,<br/>Hossain, K., Raheem, D., &amp; Lobanov, A. (2021). The Impact of<br/>Climate Change on the Food (In)security of the Siberian Indigenous<br/>Peoples in the Arctic: Environmental and Health Risks.<br/>Sustainability (Switzerland), 13(5), 1-23.<br/>[2561].https://doi.org/10.3390/su13052561</li> </ul> |
| Keywords             | Arctic, Sustainability, Natural resources, Food and Human Security   |

| Title of the lecture | Impacts of climate change on the food system (3 hours)  |
|----------------------|---|
| Teacher              | Dele Raheem   |
| Main content         | Food insecurity has been associated with several diet-related chronic diseases, including obesity, diabetes, and hypertension. We will take a |

|            | critical look at the impacts of climate change on the food system in<br>the Arctic and how this is reflected in other parts of the globe.  |
|------------|--|
| Literature | <ul> <li>Raheem, D., Dayoub, M., Birech, R., &amp; Nakiyemba, A. (2021). The Contribution of Cereal Grains to Food Security and Sustainability in Africa: Potential Application of UAV in Ghana, Nigeria, Uganda, and Namibia. Urban Science, 5(1), 1-15.<br/>https://doi.org/10.3390/urbansci5010008</li> <li>Raheem, D. (2020). Digitalisation in a local food system: Emphasis on Finnish Lapland. Open Agriculture, 5(1), 496-508. [5].<br/>https://doi.org/10.1515/opag-2020-0049</li> <li>Fanzo J. Healthy and sustainable diets and food systems: the key to achieving sustainable development goal 2? Food ethics. 2019;4(2): 159–74. <u>https://link.springer.com/article/10.1007/s41055-019-00052-6</u></li> </ul> |
| Keywords   | food (in)security, health, environment, economic, digitalisation   |

| Title of the lecture | Group work (2 hours)  |
|----------------------|---|
| Teacher              | Dele Raheem   |
| Main content         | Group work and presentation on special topics related to the course |

| Title of the lecture | Field work (6 hours)  |
|----------------------|---|
| Teacher              | Dele Raheem   |
| Main content         | Field work, a visit to an educational food processing unit in Rovaniemi |