

LTEU 153GS—Environmental Studies in Russia: Lake Baikal

Lake Baikal in Siberia, Russia is approximately 25 million years old, the deepest and oldest lake in the world, holding more than 20% of earth's fresh water, and providing a home to 2500 animal species and 1000 plant species. It is at risk of being irreparably harmed due to increasing and varied pollution and climate change. It has a rich history and culture for Russians and the many indigenous cultures surrounding it. It is the subject of social activism and public policy debate. Our course will explore the physical and biological characteristics of Lake Baikal, the risks to its survival, and the changes already observed in the ecosystem. We will also explore its cultural significance in the arts, literature, and religion, as well as political, historical, and economic issues related to it. Class will be run largely as a seminar. Each student will be expected to contribute based on their own expertise, life experience, and active learning. As a final project, student groups will draw on their own research and personal experiences with Lake Baikal to form policy proposals and a media campaign supporting them.

Week 1: Biology and Geology of Lake Baikal

Moscow: Meet with Environmental Group, Visit Zaryadye Park (Urban Development)

Irkutsk Local Field Trip: Baikal Limnological Museum—forms of life in and around Lake Baikal

Week 2: Threats to the Baikal Environment

Local Field Trip: Irkutsk Dump, Baikal Interactive Center/Service Work

Traveling Field Trip: Balagansk/Angara River, Anthropogenic Effects on Environment

Weeks 3/4: Economics and Politics of Lake Baikal, Lake Baikal in Literature and Culture

Traveling Field Trip: Olkhon Island/Service Project, Service Work on Great Baikal Trail/Camping

Week 5: Comparison of Environmental Issues and Policies in Russian Urban Centers

St. Petersburg: Visit to industrial site.

Readings and films for the course will be drawn from:

-- Marianne V. Moore, Stephanie E. Hampton, Lyubov R. Izmet'eva, Eugene A. Silow, Ekaterina V. Peshkova, Boris K. Pavlov (2009) Climate Change and the World's "Sacred Sea"—Lake Baikal, Siberia, *BioScience*, Volume 59, Issue 5, 1 May 2009, Pages 405–417.

--Stephanie Hampton et al. "Sixty Years of environmental change in the world's deepest freshwater lake—Lake Baikal, Siberia," *Global Change Biology*, August 2008.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3597250/>

--Elena Aronova, "Environmental Monitoring in the Making: From Surveying Nature's Resources to Monitoring Nature's Change," *Historical Social Research*, vol. 40, number 2, 2015.

https://www.jstor.org/stable/24583171?seq=1#page_scan_tab_contents

- Shahid Naeem et al, "Biodiversity and Human Well-Being: An Essential Link for Sustainable Development," Proceedings from the Royal Society B, Volume 283, Issue 1844, December 2016.
<https://royalsocietypublishing.org/doi/10.1098/rspb.2016.2091>
- O.T. Rusinek, F. Ufimtsev G, V.A. Fialkov (2011) *Baikal: A Scientific Tour of Lake Baikal*, Novosibirsk Academic Publishing House.
- Беркин и др. *Байколоведение*, Иркутский государственный университет, 2009.
http://herba.msu.ru/shipunov/school/books/berkin2009_bajkalovedenie.pdf
- Fred Weir (2008) "Devoted to saving Lake Baikal, she won even Putin's ear," *The Christian Science Monitor*, April 14, 2008.
- Thomas B. Rainey (1991) "Siberian Writers and the Struggle to Save Lake Baikal," *Environmental History Review*, Vol. 15, No. 1, pp. 46-60.
- Maria Antonova (2017) "World's deepest lake in peril, scientists warn," October 19, 2017, phys.org.
- M. Kozhov, *Lake Baikal and its Life*, 1963.
<https://www.springer.com/gp/book/9789061930648#aboutBook>
- Lisa Dickey, *Bears in the Streets*, New York: St. Martin's Press, 2017.
- Kate Pride Brown, *Saving the Sacred Sea: The Power of Civil Society in an Age of Authoritarianism and Globalization*, New York: Oxford University Press, 2018.
- Baikal Lake Information Portal. <http://www.baikal-center.ru/en/>
- Baikal Web World. http://www.bww.irk.ru/baikalseals/baikalseals_01.html
- Lowered eco-standards for Lake Baikal (March 2019) <https://www.rferl.org/a/lake-baikal-environmental-crisis-russia-lowers-eco-standards/29845099.html>
- Cockerell, T.D.A. "The Biology of Lake Baikal," *Science*, December 1927.
<https://science.sciencemag.org/content/66/1719/552.long>
- Байкал в фольклоре <http://www.baikal-center.ru/books/element.php?ID=1178>
- Larissa Sakh'yanova, Krasavitsa Angara+ <https://www.youtube.com/watch?v=1P896VCINE0>
- Rasputin, Valentin. *Farewell to Matyora*, 1976 (translated 1979 by Antonina W. Bouis)
- Анастасия Ярова, «Писатели о Байкале и на Байкале», <https://1baikal.ru/istoriya/pisатели-na-bajkale-i-o-bajkale>
- Jess Szalay, *Lake Baikal: World's Largest, Deepest Lake*, 2017.

<https://www.livescience.com/57653-lake-baikal-facts.html>

--Baikal without Borders (festival version of documentary film),

<https://www.youtube.com/watch?v=oxtzDHy6Fb8>

--Странствие (short documentary student film festival) 2012

<https://www.youtube.com/watch?v=tVkEAfpZI5U>

--Байкальские каникулы (kids' adventure/fantasy) 2016 https://www.youtube.com/watch?v=-qkV59U85_k&t=6s

--На Байкал (KVN) 2016 <https://www.youtube.com/watch?v=7hS8BiiiXTQ>

--Lake Baikal: The Earth's Blue Diamond (documentary on Amazon prime)

Grades for the course will be based on the following:

Participation in Class Discussion/Informal Presentations	15%
2 Reading Quizzes	15%
Russian Language Section Work	15%
Field Experience Participation	20%
Weekly Journals on Field Experiences	15%
Final Group Project*	20%

*While there is an assigned final group project, students are invited to design their own project related to an area of personal interest and in consultation with an appropriate advisor.