

**NORTH-EASTERN  
FEDERAL UNIVERSITY** NAMED AFTER M.K. AMMOSOV

<b>Course/program title:</b>	<b>Global and Regional Aspects of Ecology</b>
<b>Main goals and topics of the course/program:</b>	<p><b>I. Global Aspects</b></p> <p><b>1. Energy Problem</b> 1.Introduction 2.Thermal Equilibrium on the Earth 3.Solar Radiation 4. World's Energy Consumption</p> <p><b>2. Energy Resources</b> 1.Introduction 2.Fossil Fuels(Greenhouse Warming) 3.Water Energy(Hydro, Tidal) 4.Renewable Energies (Geothermal, Wind, Solar ) 5. Fission Energy (Atomic Energy, Radioactive Wastes) 6.Fusion Energy (Thermonuclear Energy, Tokamak Devices) 7.Direct Conversion of Thermal Energy to Electricity (MHD-generators, Thermoemissionic Converters)</p> <p><b>3.Stratospheric Ozone Depletion</b> 1.Introduction 2.Ozone Production and Loss Processes 3.Natural Causes of Ozone Depletion 4. Destructions of Ozone Layers Caused by Human Activities</p> <p><b>II. Regional Aspects ( On Example of Yakutia)</b></p> <p><b>1. Brief Information about Yakutia</b></p> <p><b>2.Extremely Fragile Ecosystem of the Yakutia</b></p> <p>1.Introduction 2.Industrial Causes of Environmental Destructions (Coal, Gold, Diamond, Oil and Gas Industries) 3.Water Pollutions (Dam on the Vilyu-river, Damage to fish) 3.Forest Fire Causes 4.Radioactive Wastes (Transport of Radionuclides) 5.Falling Second Stages of Rockets 6.Ecological Policy and Education (Laws on Ecology, Protected Areas, Study and Teaching)</p>
<b>Name of the department/institution offering the course:</b>	Department of Radio Physics and Electronics, Physics Engineering Institute
<b>Name of lecturer/supervisor:</b>	Dr. Timofey N.Solovyev
<b>E-mail of lecturer/supervisor:</b>	<a href="mailto:tim_sol@yahoo.com">tim_sol@yahoo.com</a>
<b>Number of ECTS-Credits:</b>	3

Regarding the selection of courses please contact the Center for International Education, [oip-yakutsk@mail.ru](mailto:oip-yakutsk@mail.ru) Contact person: Dr. Vladlen Kugunurov