

BA STUDENT, MATHEMATICAL ECONOMICS, FINLAND

I propose to spend an academic year at the University of Tampere, and continue my study of socio-ecological dynamics while being involved with a research team publishing a report on the economics of global climate change. I have been communicating with _____ in the Department of Regional Studies at the University of Tampere. He has offered to sponsor me as a Fulbright student to study in affiliation with the Department of Regional Studies-Environmental Policy. I have been reassured that English is commonly spoken in academia and that there are numerous courses taught in English.

During the spring semester of my junior year, I took part in an independent study under the guidance of _____, a professor of philosophy at Temple University. The semester was spent acquiring a thorough introduction to the conceptual frameworks of both non-linear dynamics as well as the body of knowledge known as complexity theory. These concepts mix together to view the biological world (including societal interactions) as a network of complex and dynamic systems that are highly non-linear and evolve over time through the tendencies of the agents within the system to self-organize. This conceptual framework has close connections to both ecology and economics.

Dr. _____'s research is in collaboration with Dr. _____, Professor of Environmental Policy at the University of Tampere in Tampere, Finland. Their project examines the efforts of the various nations and institutions in the Baltic Sea region to become ecologically sustainable with the goal of developing an analogous model of the kind of multi-national project that global warming issues present on a larger scale. The countries with vested interests in keeping the Baltic Sea within sustainable boundaries all have their separate economies, histories, traditions, senses of sovereignty, institutional structures, and needs. Nonetheless, in order for the Baltic Sea to be cleaned up, each country has to come to stable multilateral agreements. To have such an undertaking be politically and ecologically feasible, solid understandings of both the intricate socio-ecological dynamics and the political institutions are needed for a mutually agreeable policy to be realized. _____ and _____'s claim is that the "tools of complexity" offer new paths to understanding those socio-ecological dynamics.

While at the University of Tampere, I would be a part of a research team that will be involved in constructing a comprehensive report on the regional economics of climate change. Various Finnish and Scandinavian institutions are committed to producing what is called the "Stern Report" on the Baltic Sea, the model of this report being the Stern Review on the Economics of Climate Change released in 2006. _____ has informed me that, within the group preparing the report, there is little expertise in the area of complexity and non-linear dynamics. Therefore, I am being offered an opportunity to apply my theoretical and mathematical background in economics, complexity theory, and non-linear dynamics to help include a complexity perspective for this report on climate. This is a unique to take part in the kind of public policy related research that I wish to pursue upon the completion of my graduate studies.

In conjunction with research, I would take courses at the University of Tampere's Institute for International Social Sciences (ISSS) as well as in the Department of Regional Planning on topics related to socio-ecological dynamics. Courses such as "Global Companies, Corporate Social Responsibility and Environment" and "Global Cities, Urban Environmental Development and Social Justice Questions" develop and discuss current theories in social science dealing with socio-ecological dynamics and the type of policies needed for environmental sustainability. The Course "Regional Changes and Transitions in Europe" will provide the background in the dynamics of the local area that will both benefit my research interests in Finland as well as foster a better understanding of Europe's highly progressive approach to advancing environmentally sustainable standards.

Additionally, at the Department of Regional Planning, Dr. _____ has invited me to take part in his weekly graduate seminar where graduate students and students working on their doctorates present their work and raise issues for discussion. This seminar will be an opportunity to study the broad scope of the ecological side of the equation, balancing out the more socially oriented classes provided by the ISSS. Dr. _____'s seminar will be in an intellectually stimulating environment for researchers from various

disciplines.

I have found that much of the research and progress of complexity theory has come through the catalyst of interdisciplinary discourse. The University of Tampere's Department of Regional Studies is such a place to experience this type interdisciplinary environment. Finnish academia has been quicker to embrace an interdisciplinary approach than their counterparts in the United States. I am convinced that interdisciplinary discourse is vital in coining to new understandings of the world in which we live. This facet of Finnish academia is of particular interest to me and I hope to experience and learn from its dynamics and implement that understanding throughout the rest of my career.

Simultaneously, it would be a rewarding experience to be immersed in a culture that is greatly more progressive than the United States in the realm of environmentalism and environmental policy. This progressive quality is something that I wish to witness and learn from, so I can bring this approach to the environment back to the United States. It is also of significance to mention that Dr. _____ serves as the director of the National Graduate School in Environmental Social Science (YHTYMÄ). He has offered me a supporting affiliation with YHTYMÄ, which provides an additional institutional resource. Being associated with YHTYMÄ will allow me to contact additional environmental social science departments at other Finnish universities as well as get funding for travel. Hence there is a valuable opportunity to learn more about Finnish culture, regarding both environmental and non-environmental aspects, as well as the academic institutions associated with the project.

My effort to study in Finland is not only motivated by the opportunity to study the complexities of socio-ecological dynamics, but also to gain my first experience of seeing the world beyond the United States. I have yet to experience the cultures and the natural surroundings that are not found in my own back yard. My interests in socio-ecological dynamics require a global perspective since the problem at hand, climate change, is one of global cause, consequence and responsibility. International perspectives will come through studying the academic discourse these countries have engaged in, and from the non-academic culture they come from. I feel it is important to immerse myself in the Finnish Culture and I intend to do so particularly through my personal interest in music. Socio-ecological models require a reliance on the realities, like culture, underlying these social dynamics. Experiencing the world beyond my country's own borders is sure to strengthen my perspective about how to help solve our global environmental challenges.