

## **List of Courses which satisfy the School of Engineering's Professional Development II (PDII) requirement.**

The list of courses which follows provides alternative courses which will satisfy the School of Engineering's Professional Development II (PDII) requirement. In the past the PDII requirement could only be fulfilled by taking either of the 2-credit PDII courses:

PSYC-4170 Professional Development II: Leadership Theory  
PSYC-496# Professional Development II

These two 2-credit courses will continue to be offered and will still satisfy the School's PDII requirement. However, the School of Engineering feels that it is beneficial to offer its students more choice in this regard. The list which follows offers ~30 alternative 4-credit courses which may be used to satisfy the School of Engineering's PD II requirement. These alternative HASS courses satisfy the goals of PDII, but are courses which were nominally developed with the intent of offering the Rensselaer student material for a diverse education, as opposed to focusing on aspects of professional development.

Because this course will be used as part of the ABET accreditation process, 2-credit PD II or one of **the listed 4-credit substitute courses must be taken for a letter grade**. Additionally, **transfer credit transfer credit will not be accepted for PD II or any of its 4-credit substitutes**. Further note that if the student chooses to use one of the listed 4-credit HASS courses as a substitute for PD II, then **the course is only to be used as a substitute for PD II. This substitution cannot be double counted for use with the HASS core requirement (e.g. the PD II substitute course cannot also be used to satisfy the HASS depth requirement, and/or 4-credit 4000 level requirement)**. However, it will be permitted to use the substitute course toward a minor if the minor granting program permits. These courses can further be used as communications intensive non-major courses, if the class in question also appears on the registrar's list of approved communications intensive courses.

As such, students who choose to take one of these 4-credit alternative courses, instead of a 2-credit PDII course, must understand that in so doing they will ultimately be taking 24 HASS credits, instead of the 22 HASS required for graduation in engineering.

**If a student wishes to take one of these listed 4-credit courses, but not use it as a PD II substitute/alternative, then the course may be used as any other HASS course, and the above PD II related restrictions are lifted.**

## List of Courses that Will Satisfy ABET Professional Development II Outcome Goals

| COURSE #  | NAME                                      | DESCRIPTION  |
|-----------|---|--|
|           |   | These courses will satisfy SoE's Professional Development II (PDII) requirement, in addition to the current 2-credit:  |
|           |   | PSYC-4170 Professional Development II: Leadership Theory   |
| ECON-4190 | International Economics and Globalization | This course investigates the significance of economic globalization, covering the following topics: international trade and financial flows, technological innovation and intellectual property, technology transfer, national government and transnational corporations, natural resources, health and the environment, impacts on selected industries and countries, and roles of the world trade organization and international monetary fund. The major controversies surrounding globalization are identified, and alternative arguments are evaluated based on available evidence. Prerequisites/Corequisites: ECON -1200 or permission of instructor.   |
| ECON-4230 | Environmental Economics                   | Develops a critical understanding of environmental issues and policy from an interdisciplinary economics perspective. Covers the economics of environmental quality including the links between the economy and the environment, the causes of environmental problems, evaluation of environmental projects and policies, and policies to address environmental issues with an emphasis on efficiency, equity, and sustainability, and the international dimensions of environmental issues<br>Prerequisites/Corequisites: Prerequisites: ECON 1200 or permission of instructor.   |
| ECON-4240 | Natural Resource Economics                | Addresses the allocation of natural resources through applied study of fisheries, forestry, oil, minerals, water, and biodiversity resources. Mathematical analysis will be done using Microsoft Excel with Solver. Social and policy dynamics of allocation decisions will be explored through case studies. Field trips will address ecological and physical aspects of resource management. The intent is to develop a balanced perspective and tools to address resource management decisions across their diverse economic, social, and environmental dimensions.<br>This is a communication-intensive course.<br>Prerequisites/Corequisites: Prerequisites: ECON 1200 or permission of instructor. |
| ECON-4250 | Economy, Technology, & Sustainability     | This course explores the relationships between the economy and the material world. It identifies the most critical challenges to sustainable economic development on local to global scales and ways of addressing them. The course examines options surrounding material and energy flows, technological alternatives, livelihoods, consumption behavior, public policy, civil society institutions and social movements as avenues for meeting the major challenges to sustainability.<br>Prerequisites/Corequisites: Prerequisites: ECON 1200 or permission of instructor.  |
| ECON-4260 | Environmental and Resource Economics      | Introduces students to the basic analytical approaches to environmental issues and natural resource use. Emphasis is on economic valuation and public policy. Covers traditional approaches based on assumptions of economic rationality and market efficiency as well as current approaches from the fields of environmental science behavioral economics. Emphasis is on active student participation and examination of current environmental controversies.<br>Prerequisites/Corequisites: Prerequisites: ECON 2010 or permission of instructor.   |

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|                 |                          | PSYC-4170 Professional Development II: Leadership Theory  |
| <b>COURSE #</b> | <b>NAME</b>              | <b>DESCRIPTION</b>  |
| PHIL-2500       | Bioethics                | <p>This course involves a philosophical analysis of some of the basic moral issues raised by recent and anticipated developments in the areas of biology and medicine. The general question "What are moral problems, and how does one resolve them?" is examined in the context of concrete cases involving issues such as abortion, euthanasia, organ transplants, experimentation on human patients, cloning, genetic engineering, behavior control and modification. This is a communication-intensive course.</p> <p>Cross Listed: Cross listed as STSH 4250. Students cannot obtain credit for both this course and STSH 4250.</p>  |
| PHIL-4240       | Ethics                   | <p>A critical examination of traditional and contemporary works in ethical theory by considering what these theories have to say about how we should live, what rights and obligations we have, what things are intrinsically valuable. Typically this includes such topics as ethical and cultural relativism, egoism, freedom, and responsibility. Often the focus will be on contemporary issues such as war, abortion, equality, or punishment. This is a communication-intensive course.</p>   |
| PHIL-4300       | Environmental Philosophy | <p>While concepts such as quality of life, environment, nature, global ecology, and the like figure heavily in contemporary discussions, they are seldom integrated into an environmental philosophy. The course tries to achieve this integration by understanding some of the religious, mythic---poetic, and scientific dimensions of the man-nature matrix. Some specific environmental problems are examined in order to illustrate the system of values implied by various solutions.</p> <p>Prerequisite: junior or senior standing or permission of instructor.</p> <p>Cross Listed: Cross listed as STSH 4340. Students cannot obtain credit for both this course and STSH 4340.</p> |

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| <b>COURSE #</b> | <b>NAME</b>                    | <b>DESCRIPTION</b>  |
| STSH-4210       | Engineering Ethics             | This course explores the ethical issues that engineers encounter in their professional practice. It also examines social values and law and policy issues that shape engineering and technological decision making. Using case studies, professional codes of conduct, and scholarly literature, the course examines the responsibilities of engineers in relation to their employers, clients, co-professionals, and their responsibility for public safety and welfare. Topics include the history of engineering, professionalism vs. the demands of business, engineering vs. management decision making, whistle-blowing, proprietary rights and trade secrecy, and conflicts of interest.<br>Prerequisite: STSH 1110/STSS 1110, STSS 2400, or permission of instructor. |
| STSH-4250       | Bioethics                      | This course explores historical perspectives on bioethics through concrete cases and practical problems faced in the design and execution of some of the highest profile biomedical research and most consequential clinical decisions of the twentieth century. Topics include vaccine development; human radiation experiments; new genetic and reproductive technologies; right-to-die, death-with-dignity, and physician-assisted suicide; human experimentation, including prisoners, the sick, and the disabled; neuroethics; animal research; and emergent topics such as stem cell research, prenatal diagnostics, and genetic testing. This is a communication intensive course.<br>Prerequisites: STSH/STSS 1110.   |
| STSH-4340       | Environmental Philosophy       | While concepts such as quality of life, environment, nature, global ecology, and the like figure heavily in contemporary discussions, they are seldom integrated into an environmental philosophy. The course tries to achieve this integration by understanding some of the religious, mythic-poetic, and scientific dimensions of the human-nature matrix. Some specific environmental problems are examined to illustrate the system of values implied by various solutions. Prerequisites/Corequisites: Prerequisite: junior or senior standing or permission of instructor.  |
| STSH-4510       | History of American Technology | Discusses the growth of American technology and its place within the framework of American history as well as the interrelationship of American and foreign technological developments. This course stresses the cultural contexts of technological change. Topics covered include the Erie Canal, the American system of manufacturing, railroads, emergence of engineering professions, corporate R&D, household technology, the technology of modern warfare, and the electronics revolution. Prerequisites/Corequisites: Prerequisite: one course in American history or permission of instructor.  |

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| <b>COURSE #</b> | <b>NAME</b>                          | <b>DESCRIPTION</b>  |
| STSH-4610       | Product Design & Innovation Studio 5 | PDI Studio 5 focuses on an enriched sense of program and end user needs defined through methodologies of the humanities and social sciences. Studio projects, presentations and readings explore the relation of race, class, and gender to technology, and the potential of design to address societal problems. The course has often focused on incorporating information technology in educational tools for low-income primary school students. Prerequisites/corequisites: ENGR-2020, IHSS-2500 and ENGR-2050.   |
| STSH/S-2310     | Century of Environmental Thought     | This course examines the emergence of environmental consciousness in the United States throughout the 20th century. Students in this course will study the original writings of some of the most important thinkers and activists in the history of environmentalism, examine the social contexts in which their ideas formed, and consider their relevance to contemporary sustainability issues. Prerequisites: STSS 1110 or IHSS 1240 (Environment & Politics) or IHSS 196x (Politics of Global Environment) or IHSS 1110 (Nature/Society) or permission of instructor.  |
| STSH/S-4720     | Consumer Culture                     | This course explores consumption through the lens of culture. Is there such a thing as consumer culture? If so, what is it? What are its roots? Its consequences? Alternatives? In viewing documentaries and reading the work of anthropologists, historians, and religious scholars, we will focus on consumer culture in the US and UK including recognition of the global locations in which our consumer goods are made. Topics include buying and selling, shopping, retail, manufacture, material culture, pricing, consumer goods, disposal, kinship, identity, exchange, and advertising, with attention paid to differences in race, class, and gender. Prerequisites: any 1000- or 2000-level STS course or permission of instructor. |

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| STSS-4500       | Globalization and Development | This course surveys the actors, processes, and proposed solutions to the problems of environment and development. The theory and practice of three main themes are explored: the background and context of environment in North and South; politics and economic development in the south; and the problems and prospects for sustainable societies in North and South. Prerequisites/Corequisites: Prerequisite: STSS 2300 or permission of instructor |