

Department of Humanities and Social Sciences

Course Profile

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| Course Number : HSS 422 | Course Title : Technology and Development |
| Required / Elective : Required | Pre / Co-requisites : - |
| Catalog Description: Concepts of technology, industrialization, development, progress. Technology from different perspectives: Technology in the neoclassical economic theory, Dependency School and technological dependence, appropriate technology approach, technology in the labour process theory. Historical Overview: Taylorism, Fordism, emergence of post- Fordist production systems and flexible specialization, Japanese production system. National Innovation Systems and technology policies. | Textbook / Required Material : - |
| Course Structure / Schedule : (3+0+0) 3 / 5 ECTS | |
| Extended Description : Technology has a significant effect on the development process of a country. The main objective of this course is to enable students to understand the impact of technical change on economic activity, explain the problems related to the nature and direction of technical changes which are generally developed in industrialized countries, and the recognize the necessity of national systems of innovation and industrial policies that all constitute important aspects of the development process in a globalized world. | |
| <u>Course Outline:</u> | |
| Week | Topics |
| 1 | Introduction |
| 2 | Technology & Industrialization |
| 3 | Technology in Neoclassical Economic Theory |
| 4 | Dependency School and Technological Dependence |
| 5 | Appropriate Technology Approach |
| 6 | Technology in Labour Process Theory |
| 7 | Historical Overview: Taylorism, Fordism |
| 8 | Economic Crisis in the 1970s |
| 9 | Emergence of Post- Fordist Production Systems |
| 10 | Flexible Specialisation Model |
| 11 | Japanese Production System:Lean Production |
| 12 | Socio-economic Conditions in Japan and Success of Lean Production |
| 13 | Transferability of Japanese System |
| 14 | National Innovation Systems |
| 15 | Conclusion |

Design content : none

Computer usage: No particular computer usage required

Course Outcomes:

| | Program Outcomes | *Level of Contribution | | | | |
|----|--|------------------------|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 |
| 1 | Apply analytical and critical thinking skills to contemporary global issues. | | | | X | |
| 2 | Describe the interrelationships between science, technology, and society. | | | | | X |
| 3 | Describe the interrelationships between art, culture, and society. | | | | | |
| 4 | Explain the historical, political and economic conditions in which science and technology emerge. | | | | | X |
| 5 | Explain the historical, political and material conditions in which art and cultural expression emerge. | | | | | |
| 6 | Analyze how modes of thought are shaped by socio-cultural, historical, political and economic variables. | | | | X | |
| 7 | Apply discipline-relevant methods to HSS research assignments. | | | | | |
| 8 | Summarize and assess current developments in their subject area. | | | | | X |
| 9 | Recognize ethical issues and social responsibilities in the contemporary world. | X | | | | |
| 10 | Synthesize complex ideas in clear and concise ways. | | X | | | |
| 11 | Generate creative solutions to local and/or global problems. | | X | | | |
| 12 | Recognize relevance of coursework to personal experiences, lifelong learning, and job security. | | | | | |
| 13 | Demonstrate an ability to function on teams. | | X | | | |
| 14 | Demonstrate an ability to communicate effectively with written, oral and visual means. | | | | X | |

Recommended reading : -

Teaching methods : Class participation: Pre-class readings, lecture and class discussions, individual readings and team work for presentation.

Assessment methods : Exams, class presentation, class survey.

Student workload:

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| Pre-class reading | 25 hrs |
| Lectures | 45 hrs |
| Homework preparatory reading | 30 hrs |
| Literature review for presentation..... | 15 hrs |
| Team work for presentation | 10 hrs |
| TOTAL | 125 hrs ... to match 25 X 5 ECTS |

Course Category:

| ISCED General Area Codes | General Areas | ISCED Basic Area Codes | Basic Educational Areas | Percentage |
|--------------------------|--------------------------------------|------------------------|---|------------|
| 1 | Education | 14 | Teacher Training and Educational Sciences | |
| 2 | Humanities and Art | 21 | Art | |
| 2 | Humanities and Art | 22 | Humanities | 20 |
| 3 | Social Sciences, Management and Law | 31 | Social and Behavioral Sciences | 80 |
| 3 | Social Sciences, Management and Law | 32 | Journalism and Informatics | |
| 3 | Social Sciences, Management and Law | 38 | Law | |
| 4 | Science | 42 | Life Sciences | |
| 4 | Science | 44 | Natural Sciences | |
| 4 | Science | 46 | Mathematics and Statistics | |
| 4 | Science | 48 | Computer | |
| 5 | Engineering, Manufacturing and Civil | 52 | Engineering | |
| 5 | Engineering, Manufacturing and Civil | 54 | Manufacturing and Processing | |
| 5 | Engineering, Manufacturing and | 58 | Architecture and Structure | |

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|-------------------------------------|----------------------|----|--|--|
| | Civil | | | |
| 6 | Agriculture | 62 | Agriculture, Forestry, Livestock, Fishery | |
| 6 | Agriculture | 64 | Veterinary | |
| 7 | Medicine and Welfare | 72 | Medical | |
| 7 | Medicine and Welfare | 76 | Social Services | |
| 8 | Service | 81 | Personal Services | |
| 8 | Service | 84 | Transport Services | |
| 8 | Service | 85 | Environment Protection | |
| 8 | Service | 86 | Security Services | |
| Prepared by : Prof. Dr. Hacer Ansal | | | Revision Date : 27. 06. 2013 | |