NIAS COURSE OFFERINGS
SECOND SEMESTER-2015

(1) School of Humanities

(1) Course title: Cultural and societal applications of GIS

Subject/ discipline: Geographical Information Systems (GIS)

Level of course: Introductory

Number of credits: 2

Type: lectures, guest lectures, seminar and lab

Name of instructor: Dr. M.B.Rajani

Brief description:

GIS is a powerful tool for organizing, visualizing and analyzing any data which has a geo-spatial component. It therefore has applications in a variety of domains. This course will emphasize the applications of GIS for various sub-topics under the broad fields of culture and society. It will discuss several case studies, with lectures by the instructor and guest lectures by other experts, focusing on methodologies and resulting outcomes. Students will receive guidance to undertake a research project as part of this course, where they must investigate spatial components of data in their chosen domains. These findings will be discussed in seminars, as part of the course.

It is desirable for participants to bring their own laptops for lectures. The software necessary can be freely downloaded, and usage will be demonstrated.

Probable starting date and schedule/ timings: 1st Week of February, Wednesday, 2:30 to 4:45 pm

(2) Course title: Cultural Heritage Management

Subject/ discipline: Cultural Heritage Management

Level of course: Advanced

Number of credits: 2

Type: Guided reading

Name of instructor(s): Prof. Sharada Srinivasan

Brief description:

The course will explore the history and theory of Cultural heritage management in the application in assessment of cultural significance of heritage sites and places. Readings will encompass the disciplines of Art History, Architecture, Heritage Conservation, Anthropology and related fields, with a comparative focus on South Asia and Western Europe. There will be periodic written submissions and individual discussions with the instructor. The course will culminate in a review of literature paper based on an annotated bibliography.

(2) School of Natural & Engineering Sciences

(1) Course title: Programming for Data Analysis and Modelling

Subject/ discipline: Energy and Environment Policy Programme

Number of credits: 3

Type (lecture, seminar, guided reading, etc): Computer workshop

Name of instructor(s): Dr. Shoibal Chakravarty

Brief description:

This course will be an introduction to data analysis and mathematical modeling and optimization using Python and Julia.

The course will cover the following topics (tentative):

* Introduction to Python

* Basic data analysis, visualization and statistical modelling in Python

* Introduction to Julia

* Introduction to mathematical modelling

* Mathematical modelling in Julia

(3) School of Social Sciences

(1) Course title: Economics of Science and Technology

Subject/ discipline: Economics

Level of course: 200

Number of credits: 2

Type of paper: Guided reading based discussion

Name of instructor(s): Dr. Chidambaran G. Iyer

Brief description:

The aim of this course is to provide an economist's introduction to the study of scientific and technological activities, their interconnections, and their consequences for economies and societies. The objective of this course would be to introduce students to the research that has been done on few important topics in this field of study. Initially, we would discuss papers in class that provide an overview of Science, Technology, Innovation, and Economic growth. This would be followed by a discussion of papers on the diffusion of technological innovations and their effects. If time permits, we would also discuss papers on subsidies and incentives for innovation.

For the discussion students would be expected to read papers that would be sent in advance. Economic concepts used in the papers will be discussed in the class before initiating the discussion on the paper. The class would meet once a week, where a pre-decided topic would be picked for discussion.

Prerequisites, if any: Enthusiasm for reading

Probable starting date and schedule/ timings: Starting from February 4, 2015

(2) Course title: Intensive Reading Course on Migration, Gender and Work

Subject/ discipline: Sociology/ Social Anthropology

Level of course: Advanced

Number of credits: 2

Type: (lecture, seminar, guided reading, etc): Guided reading

Name of instructor(s): Prof. Carol Upadhya

Brief description:

The course will explore the intersections of migration, gender, ethnicity, and work through a close reading of selected readings from anthropology, sociology, and related disciplines, with a focus on South Asia. The format will be an intensive programme of reading through a structured bibliography, with periodic written submissions, followed by individual discussions with the instructor at least twice a month. The course will culminate in a comprehensive annotated bibliography and a substantial thematic literature review paper.

(3) Course title: Sociology of Education

Subject/ discipline: Sociology

Number of credits: 2

Type: (lecture, seminar, guided reading, etc): Guided reading

Name of instructor(s): Dr. Shivali Tukdeo

Brief description :

The reading course is mainly designed to cover some of the significant issues in sociology of education by reviewing a variety of theoretical and empirical writings. Specific focus areas would include school-society relationships, social reproduction, social mobility, social capital and teaching as an occupation. In the first few weeks, the course will involve constructing an exhaustive bibliography of scholarly work and charting out a focused reading plan. The goal is to create a comprehensive review of literature by the end of semester.

Probable starting date and schedule/ timings: First week, February.

(4) Course title: Advanced Course on Gifted Education

Subject/ discipline: Education

Number of credits: 2

Type: (lecture, seminar, guided reading, etc): Guided Reading

Name of instructor(s): Prof. Anitha Kurup

Brief description:

The course will broadly cover the issues in the area of gifted education. This will include:

a) **Gifted from a developmental psychology perspective-** early buds vs late bloomers, the role of environment, insights from neurobiology and cognitive science, synchronous vs. asynchronous development in areas social and emotional development- issues and remedies.

b) **Gifted and gender:** Population of the gifted and distribution of giftedness across gender, gender bias in the identification- reasons and causes.

c) **Gifted and learning disabilities (LD)** : Twice exceptional children- nature and needs of these children, expression of gifts- savants in different areas, neurobiological inputs and need for appropriate identification and support systems .

d) **Giftedness and culture:** role of culture in defining the term Giftedness, eastern and western perspectives on giftedness, influence of culture on identification and designing the content for the gifted children.

e) **Educational options and the role of mentoring in the area of gifted education.**

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