

NIAS COURSE OFFERINGS

FIRST SEMESTER (AUGUST- NOVEMBER) 2015

(1) School of Humanities

NIAS Consciousness Studies Programme

(1) [Course CSP-2-1: An Introduction to Consciousness Studies \(2 credits\)](#)

Coordination and Concept: Sangeetha Menon

Course Instructors: Sangeetha Menon, V V Binoy, Sisir Roy, Lalit M Patnaik, Venkat Rayudu, Anindya Sinha, and Gagan Deep Kaur

(2) [Course CSP-1-2: Conceptual Mathematics for Cognitive Neuroscience \(1 credit\)](#)

Course Instructor and Concept: Venkat Rayudu

(3) [Course CSP-2-3: Computation and Cognition: An Introduction \(2 credits\)](#)

Course Instructor and Concept: Lalit Patnaik

(4) [Course CSP-2-4: Brain, Self and Cognition: Building Concepts & Frameworks \(2 credits\)](#)

Course Instructor and Concept: Sangeetha Menon and Gagan Deep Kaur

Please visit the following webpage/link with the complete details of the 4 courses

<http://niasconsciousnesscentre.com/Courses/ncp-courses-2015.html>

Interested candidates to enroll for any of the above Courses write to

niasconsciousnessprogramme@gmail.com

Last date to send your statement of interest is **7 August 2015**.

(2) School of Natural & Engineering Sciences

(1) **Course title:** Energy Systems: Technology Policy

Number of credits: 3

Type (lecture, seminar, guided reading, etc): Lecture and guided reading

Course Coordinators : T S Gopi Rethinaraj and Shoibal Chakravarty

Name of instructor(s): T S Gopi Rethinaraj, Shoibal Chakravarty, Dilip Ahuja, D P Sengupta,
Hippu S K Nathan

Brief description:

The objective of this course is to provide a basic understanding of the science, technology, economics and socio-politics of various energy systems (fossil, renewable and nuclear) for energy policy analysis and national/regional environmental regulation besides assessing various energy technology and policy options to mitigate global warming and climate change.

This course will describe various energy resources and industrial systems fuelling modern economic growth, and the growth potential and environmental constraints for their increased utilization. Description of various power generation systems and supply infrastructure will be provided in a way accessible to a broader audience. For those with technical background, discussion on policy aspects of energy production and consumption (economic, social, and political) will be more instructive. The overall objective is to provide a broader understanding of various energy options available for the future and their individual limitations. This course is suited for anyone interested in energy and environment, and will be of special interest to students planning to work in energy business, energy policy, and environmental regulation.

Some of the questions addressed in the course include: How long will conventional oil and gas resources be able to meet regional and global demand? Will energy resource depletion drive fuel substitution that increases efficiency and lessen the environmental liabilities of current energy systems? What will be the role of renewable energy technologies and nuclear power in the evolving mix of primary energy sources? Will the present generation solve the problem of nuclear waste disposal? Will a major innovation in energy production happen during our lifetime that will finally alleviate concerns about global warming climate change?

Prerequisites and Workload:

No prerequisites required for taking this course. Expected workload is about 10 hours per week including 3 hours of lecture with remaining hours spending for reading and other preparation.

Probable starting date and schedule/ timings: 6 August 15, Thursday, 9:30 to 12:30 pm

(2) Course title : Animal Behaviour Ecology

Number of credits: 3

Name of instructor(s): Prof. Anindya Sinha

Brief description:

This is an introductory course in animal behaviour and behavioural ecology, aiming to provide certain perspectives on the influence of ecology and natural selection on animal behaviour in the wild. Within a general framework of comparative studies, observational and experimental approaches, and hypotheses-testing, some of the issues that the course will examine include economic decisions in ecology and optimal foraging theory, prey-predator relationships and evolutionary arms races, competition for resources, the costs and benefits of group-living, sexual conflict and sexual selection, parental care and mating systems, alternative reproductive strategies, selfishness and altruism, cooperation and helping in mammals, birds and fishes. There would also be lectures on the contributions of behavioural ecology to animal conservation and the use of observational techniques in the study of animal behaviour.

Pre-requisites for Registration/Auditing: None

Lecture Topics and Discussion

Rough outline of lecture topics covered in each session during the course of 15-16 weeks and readings (journal articles, book chapters, news articles, cases, etc.) required and recommended for each lecture topic.

Basis for Final Grades

Final examination	50 marks
Seminar	20 marks
Essay	20 marks
General participation	10 marks

Course Duration: September-December 2015

(3) School of Social Sciences

(1)Course Title: Ontology of Indian Development

Course Instructor(s): Prof Narendar Pani

Credit Hours: 3

Course Description: The course will try to capture what it is to be a part of India's development process. It will explore the processes that have led to Indian development being what it is. It will piece this picture together using inputs from philosophy, economics, sociology, politics and post-Independence Indian history.

Learning Objectives:

The main objective of the course is to enable students to understand India's development process as it is, rather than what one ideology or the other insists it should be.

Pre-requisites for registration/auditing:

An open mind and a willingness to read extensively.

Expected Student Workload:

Ten hours a week including 3 hours of classes.

Course Duration:

August-November 2015

Lecture Topics and Discussion

Session 1. Philosophical influences on Indian development

Session 2. Impact of philosophical conflicts at Independence: When legality contradicts morality

Session 3. Nehruvian separation: Mahalanobis and backward agriculture

Session 4. Closed window to the world: Fighting comparative advantage

Session 5. Ideology, identity and inequality: Education, aspirations and revolutions

Session 6. Unequally Green revolution: Internal migration and the challenge of majoritarianism.

Session 7. New capital and the rise of regional identities: Consolidation of policies by stealth

Session 8. Globalization, currency crisis and liberalization: Reforming to stay afloat

Session 9. Budgets and the making, and breaking, of financial markets: From the regional to the global

Session 10. Urbanization, location and regional disparities: The rise of Census towns

Session 11. Crisis in knowledge: Exporting intellectual capital, importing ideas

Session 12. Breakdown of inappropriate institutions: Consolidation of the family

Session 13. The limits to growth: High growth and low human development

Session 14. Ontological status of India's development

Session 15. Student presentations

Basis for Final Grades

20% of the evaluation will be based on class discussions.

80% of the evaluation will be based on the final presentations.

Books and References

References will come up during the course of discussion

Probable starting date and schedule/ timings: 6 August, Thursday, 2:00 to 5:00 pm

(2)Course Title: Writing as persuasion

Course Instructor(s): Prof Narendar Pani

Credit Hours: 2

Course Description: The course will explore writing not so much as an act of composition but as a part of a process of persuasion. The course will look at each of the elements of writing and see how they work individually and together in the process of persuasion. Even as the focus of the course will be on academic writing it will continuously seek to place the elements of academic writing in a wider context of other writing including the classics, fiction and poetry.

Learning Objectives:

The main objective of the course is to improve the academic writing skills of the participants. It is possible that there skills in other forms of writing will improve as well.

Pre-requisites for registration/auditing:

Students will be expected to submit a sample of their writing at the beginning of the course. The sample could be a previously written piece and would ideally not be very long.

Expected Student Workload:

Ten hours a week including 6 hours of classes.

Course Duration:

August-September 2015

Lecture Topics and Discussion

Session 1: From writer to author: The components of writing.

Session 2: Understanding the audience.

Session 3: The author and the fictional character she assumes.

Session 4: Choice of vantage point of the author.

Session 5: Structuring what is to be conveyed.

Session 6: Appeals to authority.

Session 7: Use of a part for the whole.

Session 8: Models and metaphors.

Session 9: Irony and cynicism as knowledge.

Session 10: When style destroys content.

Session 11: Editing as cleaning up after writing.

Session 12: Self-evaluation of written pieces submitted at the beginning of the course

Basis for Final Grades

50% of the evaluation will be based on class performance, i.e. short written assignments and discussions. 50% on an evaluation of the final self-evaluation

Books and References

References will come up during the course of discussion in class

Probable starting date and schedule/ timings: 24 August, Mon, Wed. and Fri.

(3) Course Title: Understanding Conflict

Subject/Discipline: Conflict Studies and Conflict Resolution

Level of Course: Post-Graduate, PhD

Number of credits: 3

Name of Instructor: Dr. Anshuman Behera

Type: This is primarily a lecture based course. The course will also involve seminars and guided readings.

Brief Description: The purpose of this course is to provide a broad overview of understanding conflict. It includes major theoretical positions, debates and important conflicts that India has been witnessing. The first portion of the course brings together theoretical positions, both Western and Indian, to have better understanding in conceptualising conflict. The second portion is on major individual conflicts India has been facing for long time. This course will help understand the interface between individual conflicts and larger conceptualisation of conflict.

Course Outline

Understanding Conflict: An introduction

- What is Conflict?
- Types of Conflict
- Sources of Conflict

Understanding Conflict: Theoretical Foundation

- Johan Galtung
- Lewis Coser
- C. Wright
- Karl Marx
- Paul Collier and Anke Hoeffler
- John Paul Ladrech
- M K Gandhi
- B R Ambedkar
- R m Lohia

Understanding conflicts in India

- Conflict over identity and ethnicity issues (case studies of conflicts in Northeast India: Nagaland, Manipur, Assam, Tripura and Meghalaya)
- Conflict over Regionalism (Telengana and Gorkhaland)
- Conflict over ideology, language and religion (The Maoist conflict, Communal violence, linguistic conflicts)
- Conflict over autonomy (Kashmir)
- Conflict over resources (Cauvery water, Land acquisition)
- Conflict over environment (Chipko movement, Narmada Bachao Andolan and Niyamgiri in Odisha).
- Conflict over development and rehabilitation.

Probable starting date and schedule/ timings: Friday, 14 August 15

(4) Course Title: Economics of Science and Technology

Course Instructor(s): Chidambaran G. Iyer

Credit Hours: 2/3 credits

Learning Objectives:

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. In this course students would be familiarized with the research that has been done on few important topics in this field of study.

Pre-requisites for registration/auditing: No

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.

Course Duration:

August-November 2015

Lecture Topics and Discussion

1) Overview of Science, Technology, Innovation and Economic growth

Rosenberg and Kline, 'An Overview of Innovation'

Stephan, 'The Economics of Science'

Smith, 'Economics of Technology'

Audretsch et al, 'The Economics of Science and Technology'

Nelson, 'The Simple Economics of Basic Scientific Research'

Dasgupta and Maskin, 'The Simple Economics of Research Portfolios'

David et al, 'Science, Technology and Innovation for Economic Growth: Linking Policy Research and Practice in "STIG Systems" '

Rosenberg, 'Science, Invention and Economic Growth'

Arrow, 'Economic Welfare and the Allocation of Resources for Invention'

2) Economics of Innovation

Dosi, 'Procedures, and Microeconomic Effects of Innovation'

Swann, 'The Economics of innovation'

3) Diffusion of technological innovations

Ruttan, 'Induced Innovation, Evolutionary Theory and Path Dependence: Sources of Technical Change'

Dosi, 'Opportunities, Incentives and the Collective Patterns of Technological Change'

Nordhaus, 'Traditional Productivity Estimates are Asleep at the (Technological) Switch'

Wright, 'Towards a More Historical Approach to Technological Change'

4) Policy issues

Subsidies and incentives for innovation

Intellectual Property rights

Technology Transfer

Basis for Final Grades

Mid term – 30 per cent

Assignment – 30 per cent

End term – 30 per cent

Class participation – 10 per cent

Probable starting date and schedule/ timings: Tuesday, 11 August 15, 2:30 to 4:30 pm

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