Ambedkar University, Delhi
Proposal for Launch of a Course
(To be approved by the Academic Council)

School/Centre proposing the course	School of Undergraduate Studies
Programme(s)	BA Honours Programmes
Course title	Topics in Economic Theory
Course code	SUS1EC132
Total Credits	4
Course type (core/compulsory/ elective/any other – please specify)	elective
Level (Pre-doctoral/MA/PG Diploma /Certificate/UG)	UG
Proposed date of launch	Sixth semester
Course coordinator and team	Taposik Banerjee / Rajendra Prasad Kundu

1. Does the course connect to, build on or overlap with any other courses offered in AUD?

   The course is designed with an objective to prepare students for higher studies in Economics. The course is based on what they have learned from the Microeconomics courses at the undergraduate level. Students attending this course will find it helpful if they join MA Economics Programme (not necessarily in AUD).

2. Specific requirements on the part of students who can be admitted to this course:
   (Pre-requisites; prior knowledge level; any others – please specify)

   Successful completion of EC 102: Microeconomics I & EC 105:Microeconomics II.

3. No. of students to be admitted (with justification if lower than usual cohort size is proposed): NA

4. Course scheduling (semester; semester-long/half-semester course; workshop mode; seminar mode; any other – please specify):

   Semester-long

5. How does the course link with the vision of AUD?

   This is an optional course for last semester undergraduate economics students. The course was designed with the intention to prepare and inspire students for higher studies in economics. The course has three components, namely, Choice Theory, Game Theory and Uncertainty, which would help the students to understand the nature of modern economic institutions.

6. How does the course link with the specific programme(s) where it is being offered?

The three components, namely, Choice Theory, Game Theory and Uncertainty are considered to be integral parts of modern economic analysis. The course introduces the basic concepts of the three above mentioned components such that the students may use them to solve simple problems. These concepts, especially the ones from game theory, will help students understand strategic interactions between people and groups of people and their implications for social and economic outcomes. This directly ties up with AUD's vision of scholarship fulfilling social needs by providing tools to students to understand many of the central social and economic issues that confront all citizens in a modern economy.

7. **Course Details:**

a. Summary:

The course introduces students to choice theory, game theory and the theory of uncertainty. Topics covered include properties of binary relations and preferences of a rational individual, revealed preference theory and rationalization. Additionally, concept of static games and dynamic games with complete information along with their application in economics will also be covered.

b. Objectives:

1. *To give students a firmer grounding in economic theory.*
2. *To introduce students to abstract economic reasoning that characterizes higher studies in economics.*
3. *To introduce students to choice theory, game theory, and uncertainty that are building blocks of advanced economic theory.*
4. *To introduce students to the concept of Nash Equilibrium with pure and mixed strategies.*
5. *To introduce students to consumer behaviour under uncertainty and attitudes towards risk.*

c. Expected learning outcomes:

At the end of the course the students should be able to:

1. Describe the axioms of choice theory and their implications for consumer behaviour.
2. Describe the concepts of a static and dynamic games under complete information.
3. Solve for Nash Equilibrium under pure and mixed strategies.
4. Describe consumer behaviour under uncertainty using concepts of risk aversion, risk neutrality and risk seeking behavior.

d. Overall structure (course organisation, rationale of organisation; outline of each module):

1. Introduction to choice theory

- Binary relations and preferences
- Introduction to revealed preference theory
- Concept of rationalization

2. Introduction to game theory
    - Static Games of Complete Information along with some applications in economics
    - Mixed Strategies and Existence of Equilibrium
    - Dynamic Games of Complete Information
    - Two-Stage Games of Complete but Imperfect Information

3. Introduction to the theory of uncertainty
    - Simple lottery
    - Von Neumann-Morgenstern expected utility
    - Concepts of risk neutral, risk averse and risk seeking behavior

References:

Mukherji A and S Guha, (2011), Mathematical Methods and Economic Theory, Oxford University Press, Delhi,
Varian, Hall R.,(1990), Intermediate Microeconomics, W.W. Norton & Company, New York, London.
Jehle & Renne, Advanced Microeconomic Theory, Pearson Education, India
Gibbons, R., A Primer In Game Theory
Osborne, J. M., An Introduction to Game Theory
Sen, A., 1970. Collective Choice and Social Welfare, Holden-Day.

e. Contents (week wise plan with readings):

Week	**Plan/ Theme/ Topic**	**Core Reading (with no. of pages)**	**Additional Suggested Readings**	**Assessment (weights, modes, scheduling)**
1	Mathematical Logic and Binary relations	Classnotes	Mukherji A and S Guha, (2011), Ch-2, Ch-3,	
2	Properties of Binary Relations and Preferences	Sen, A., 1970, Classnotes		
3	Introduction to revealed preference and choice theory	Sen, A., 1970, Ch-1		
4	Concept of rationalization and internal consistency conditions	Sen, A., 1970, Ch-1		
5	internal consistency conditions	Sen, A., 1970, Ch-1		Test-1 (25%) Week-1-5

6	Static Games of Complete Information along with some applications in economics	Osborne, J. M Ch-2 and 3	Gibbons, R. Ch-1	
7	Mixed Strategies and Existence of Equilibrium	Osborne, J. M Ch-4	Gibbons, R. Ch-1	
8	Dynamic Games of Complete Information	Osborne, J. M Ch-5,6,7	Gibbons, R. Ch-2	
9	Two-Stage Games of Complete but Imperfect Information	Osborne, J. M Ch-5,6,7	Gibbons, R. Ch-2	Test-2 (35%) Week – 6-9
10	Simple lottery	Jehle & Renne, Classnotes	Mukherji A and S Guha, (2011)	
11	Von Neumann-Morgenstern expected utility	Jehle & Renne, Varian, Hall R.,(1990),	Mukherji A and S Guha, (2011)	
12	Concepts of risk neutral, risk averse and risk seeking behavior	Jehle & Renne, Varian, Hall R.,(1990),	Mukherji A and S Guha, (2011)	Test-3 (40%) Week-1-12

8. **Pedagogy:**
   a. Instructional strategies: Classroom lecture

   b. Special needs (facilities, requirements in terms of software, studio, lab, clinic, library, classroom/others instructional space; any other – please specify): *Classroom, whiteboard and overhead projector.*

   c. Expertise in AUD faculty or outside: *Current AUD faculty has adequate expertise to teach the course*.

   d. Linkages with external agencies (e.g., with field-based organizations, hospital; any others) NA

Signature of Course Coordinator(s)

Note:

1. Modifications on the basis of deliberations in the Board of Studies (or Research Studies Committee in the case of research programmes) and the relevant Standing Committee

(SCAP/SCPVCE/SCR) shall be incorporated and the revised proposal should be submitted to the Academic Council with due recommendations.

2. Core courses which are meant to be part of more than one programme, and are to be shared across Schools, may need to be taken through the Boards of Studies of the respective Schools. The electives shared between more than one programme should have been approved in the Board of Studies of and taken through the SCAP/SCPVCE/SCR of the primary School.
3. In certain special cases, where a course does not belong to any particular School, the proposal may be submitted through SCAP/SCPVCE/SCR to the Academic Council.

Recommendation of the School of Studies:

Suggestions:

Signature of the Dean of the School