UNIVERSITY OF CALCUTTA

Notification No. CSR/ 12 /18

It is notified for information of all concerned that the Syndicate in its meeting held on 28.05.2018 (vide Item No.14) approved the Syllabi of different subjects in Undergraduate Honours / General / Major courses of studies (CBCS) under this University, as laid down in the accompanying pamphlet:

List of the subjects

<table>
<thead>
<tr>
<th>SL. No.</th>
<th>Subject</th>
<th>SL. No.</th>
<th>Subject</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Anthropology (Honours / General)</td>
<td>29</td>
<td>Mathematics (Honours / General)</td>
</tr>
<tr>
<td>2</td>
<td>Arabic (Honours / General)</td>
<td>30</td>
<td>Microbiology (Honours / General)</td>
</tr>
<tr>
<td>3</td>
<td>Persian (Honours / General)</td>
<td>31</td>
<td>Mol. Biology (General)</td>
</tr>
<tr>
<td>4</td>
<td>Bengali (Honours / General /LCC2 /AECC1)</td>
<td>32</td>
<td>Philosophy (Honours / General)</td>
</tr>
<tr>
<td>5</td>
<td>Bio-Chemistry (Honours / General)</td>
<td>33</td>
<td>Physical Education (General)</td>
</tr>
<tr>
<td>6</td>
<td>Botany (Honours / General)</td>
<td>34</td>
<td>Physics (Honours / General)</td>
</tr>
<tr>
<td>7</td>
<td>Chemistry (Honours / General)</td>
<td>35</td>
<td>Physiology (Honours / General)</td>
</tr>
<tr>
<td>8</td>
<td>Computer Science (Honours / General)</td>
<td>36</td>
<td>Political Science (Honours / General)</td>
</tr>
<tr>
<td>9</td>
<td>Defence Studies (General)</td>
<td>37</td>
<td>Psychology (Honours / General)</td>
</tr>
<tr>
<td>10</td>
<td>Economics (Honours / General)</td>
<td>38</td>
<td>Sanskrit (Honours / General)</td>
</tr>
<tr>
<td>11</td>
<td>Education (Honours / General)</td>
<td>39</td>
<td>Social Science (General)</td>
</tr>
<tr>
<td>12</td>
<td>Electronics (Honours / General)</td>
<td>40</td>
<td>Sociology (Honours / General)</td>
</tr>
<tr>
<td>13</td>
<td>English (Honours / General/ LCC1/ LCC2/AECC1)</td>
<td>41</td>
<td>Statistics (Honours / General)</td>
</tr>
<tr>
<td>14</td>
<td>Environmental Science (Honours / General)</td>
<td>42</td>
<td>Urdu (Honours / General /LCC2 /AECC1)</td>
</tr>
<tr>
<td>15</td>
<td>Environmental Studies (AECC2)</td>
<td>43</td>
<td>Women Studies (General)</td>
</tr>
<tr>
<td>16</td>
<td>Film Studies (General)</td>
<td>44</td>
<td>Zoology (Honours / General)</td>
</tr>
<tr>
<td>17</td>
<td>Food Nutrition (Honours / General)</td>
<td>45</td>
<td>Industrial Fish and Fisheries – IFFV (Major)</td>
</tr>
<tr>
<td>18</td>
<td>French (General)</td>
<td>46</td>
<td>Sericulture – SRTV (Major)</td>
</tr>
<tr>
<td>19</td>
<td>Geography (Honours / General)</td>
<td>47</td>
<td>Computer Applications – CMAV (Major)</td>
</tr>
<tr>
<td>20</td>
<td>Geology (Honours / General)</td>
<td>48</td>
<td>Tourism and Travel Management – TTMV (Major)</td>
</tr>
<tr>
<td>21</td>
<td>Hindi (Honours / General /LCC2 /AECC1)</td>
<td>49</td>
<td>Advertising Sales Promotion and Sales Management – ASPV (Major)</td>
</tr>
<tr>
<td>22</td>
<td>History (Honours / General)</td>
<td>50</td>
<td>Communicative English –CMEV (Major)</td>
</tr>
<tr>
<td>23</td>
<td>Islamic History Culture (Honours / General)</td>
<td>51</td>
<td>Clinical Nutrition and Dietetics CNDV (Major)</td>
</tr>
<tr>
<td>24</td>
<td>Home Science Extension Education (General)</td>
<td>52</td>
<td>Bachelor of Business Administration (BBA) (Honours)</td>
</tr>
<tr>
<td>25</td>
<td>House hold Art (General)</td>
<td>53</td>
<td>Bachelor of Fashion and Apparel Design – (B.F.A.D.) (Honours)</td>
</tr>
<tr>
<td>26</td>
<td>Human Development (Honours / General)</td>
<td>54</td>
<td>Bachelor of Fine Art (B.F.A.) (Honours)</td>
</tr>
<tr>
<td>27</td>
<td>Human Rights (General)</td>
<td>55</td>
<td>B. Music (Honours / General) and Music (General)</td>
</tr>
<tr>
<td>28</td>
<td>Journalism and Mass Communication (Honours / General)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The above shall be effective from the academic session 2018-2019.

SENATE HOUSE
KOLKATA-700073
The 4th June, 2018

(Dr. Santanu Paul)
Deputy Registrar
UNIVERSITY OF CALCUTTA

B.A./B.Sc. ECONOMICS
(HONOURS AND GENERAL)
SYLLABUS UNDER CHOICE BASED
CREDIT SYSTEM

To be effective from the academic session 2018-19
Table 1: Marks and Paper distributions with credit

<table>
<thead>
<tr>
<th>Course Type</th>
<th>Total Papers</th>
<th>Credit</th>
<th>Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Courses (CC)</td>
<td>14</td>
<td>14*6=84</td>
<td>14*100=1400</td>
</tr>
<tr>
<td>Discipline Specific Electives (DSE)</td>
<td>4</td>
<td>4*6 =24</td>
<td>4*100 = 400</td>
</tr>
<tr>
<td>Generic Electives (GE) [Covering Two Disciplines with two courses each. Any discipline in any semester]</td>
<td>4</td>
<td>4*6=24</td>
<td>4*100= 400</td>
</tr>
<tr>
<td>Ability Enhancement Compulsory Courses- AECC</td>
<td>2</td>
<td>2*2=4</td>
<td>100*2= 200</td>
</tr>
<tr>
<td>[Consisting of two Ability Enhancement Compulsory Courses – AECC-1 and AECC-2]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skill Enhancement Courses (SEC)</td>
<td>2</td>
<td>2*2=4</td>
<td>100*2=200</td>
</tr>
<tr>
<td>Totals</td>
<td>26</td>
<td>140</td>
<td>2600</td>
</tr>
</tbody>
</table>

- Continuous Internal Assessment and Students’ Attendance: For each paper 10% will be reserved for continuous internal assessment (CIA) and 10% will be reserved for attendance of the students. CIA may take the form of written examination/s, take-home assignments, viva-voce; presentation etc depending on the course instructor. As per definition CIA will be assessed fully internally by the course instructor.

Types of tutorials: Tutorial classes are introduced per course (except for AEC and SEC) to give the students an idea of detailed understanding of the course and also to build their confidence on the subject in terms of (i) solving problems, (ii) presenting a paper in terms of board work or power point,(iii) preparation of term paper etc. A tutorial class also helps a teacher to clarify any topic in detail to the students. A tutorial contact hour has been meant to promote teacher-student academic interaction. The norm of examination for this part of the course will be decided later. Unlike all other Science subjects Economics should not be treated as a laboratory–based subject. After all it is a subject under Social Science and so there is limited scope for introducing practical part for each course. Only under Discipline Specific Elective-A,
5th Semester/6th Semester, for the Courses “Applied Econometrics” and “Issues in Indian Economy” (under DSE A) there will be a practical part of 30 marks (2 credits) instead of tutorial part of 15 marks (1 credit). Practical classes in case of “Applied Econometrics” will be conducted on the basis of laboratory-based specified softwares (STATA or R). Practical classes for the course “Issues in Indian economy”

**Method followed for coding the Courses**

**Economics Honours Core Course 1, 1st semester (Theory):** ECO-A-CC-1-1-TH  
**Economics Honours Core Course 1, 1st semester (Tutorial):** ECO-A-CC-1-1TU
Table 2: Course structure semester-wise: Economics (Honours)

**Table 2A: Semester –I (July to December)**

<table>
<thead>
<tr>
<th>Type of Course</th>
<th>Name of the Course</th>
<th>Credit</th>
<th>Marks</th>
</tr>
</thead>
</table>

**Table 2B: Semester –II (January to June)**

<table>
<thead>
<tr>
<th>Type of Course</th>
<th>Name of the Course</th>
<th>Credit</th>
<th>Marks</th>
</tr>
</thead>
</table>

**Table 2C: Semester –III (July to December)**

<table>
<thead>
<tr>
<th>Type of Course</th>
<th>Name of the Course</th>
<th>Credit</th>
<th>Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economics Core Course –VI (ECO-A-CC-3-6-TH-TU)</td>
<td>Intermediate Macroeconomics-I [Theory plus Tutorial]</td>
<td>5+1=6</td>
<td>100</td>
</tr>
<tr>
<td>Economics Core Course –VII (ECO-A-CC-3-7-TH-TU)</td>
<td>Statistics for Economics [Theory plus Tutorial]</td>
<td>5+1=6</td>
<td>100</td>
</tr>
<tr>
<td>Skill Enhancement Course-I (A Group) (ECO-A-SEC-3-1A-TH)</td>
<td>Data Analysis [Theory]/ Rural Development [Theory] [A-Group of SEC consists of two courses. Students will have to select any one of the two]</td>
<td>2</td>
<td>100</td>
</tr>
</tbody>
</table>
Table 2D : Semester-IV (January to June)

<table>
<thead>
<tr>
<th>Type of Course</th>
<th>Name of the Course</th>
<th>Credit</th>
<th>Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economics Core Course –VIII</td>
<td>Intermediate Microeconomics-II [Theory plus Tutorial]</td>
<td>5+1=6</td>
<td>100</td>
</tr>
<tr>
<td>(ECO-A-CC-4-8-TH-TU)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Economics Core Course –IX</td>
<td>Intermediate Macroeconomics-II [Theory plus Tutorial]</td>
<td>5+1=6</td>
<td>100</td>
</tr>
<tr>
<td>(ECO-A-CC-4-9-TH-TU)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Economics Core Course –X</td>
<td>Introductory Econometrics [Theory plus Tutorial]</td>
<td>5+1=6</td>
<td>100</td>
</tr>
<tr>
<td>(ECO-A-CC-4-10-TH-TU)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skill Enhancement Course-II</td>
<td>Research Methodology [Theory]/Managerial Economics [Theory]</td>
<td>2</td>
<td>100</td>
</tr>
<tr>
<td>(B Group)</td>
<td>(ECO-A-SEC-4-2B-TH)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2E: Semester –V (July to December)

<table>
<thead>
<tr>
<th>Type of Course</th>
<th>Name of the Course</th>
<th>Credit</th>
<th>Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economics Core Course –XI</td>
<td>International Economics [Theory plus Tutorial]</td>
<td>5+1=6</td>
<td>100</td>
</tr>
<tr>
<td>(ECO-A-CC-5-11-TH-TU)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Economics Core Course –XII</td>
<td>Indian Economy [Theory plus Tutorial based Term Paper]</td>
<td>5+1=6</td>
<td>100</td>
</tr>
<tr>
<td>(ECO-A-CC-5-12-TH-TU)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Two Discipline Specific Elective (DSE) Courses: DSE-A and DSE-B</td>
<td>DSE-A(1) consists of two courses out of which students will have to select any one and DSE-B(1) consists of two courses out of which students have to select any one.</td>
<td>(5+1)=6</td>
<td>100+</td>
</tr>
<tr>
<td>In Semester V these two courses are denoted as DSE-A(1) and DSE-B(1)</td>
<td>The two courses under DSE-A(1) are</td>
<td></td>
<td>100+</td>
</tr>
<tr>
<td>One out of two courses from:</td>
<td>Applied Econometrics (AE) : 4(Th)+2(P)= 6</td>
<td>(5+1)=6</td>
<td>100+</td>
</tr>
<tr>
<td>DSE-A(1)</td>
<td>Economic History of India (1857-1947) (EHI) : 5(Th)+1(Tu)= 6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(ECO-A-DSE-5-A(1)-TH-TU/P)</td>
<td>[Students will have to select any one]</td>
<td>(5+1)=6</td>
<td></td>
</tr>
<tr>
<td>One out of two courses from:</td>
<td>The two courses under DSE-B(1) are</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DSE-B(1)</td>
<td>Comparative Economic Development (1850-1950) (CED): 5(Th)+1(Tu)= 6</td>
<td>(5+1)=6</td>
<td></td>
</tr>
<tr>
<td>(ECO-A-DSE-5-B(1)-TH-TU)</td>
<td>Financial Economics (FE) : 5 (Th) + 1 (Tu) =6</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>[Students will have to select any one]</td>
<td>(5+1)=6</td>
<td></td>
</tr>
<tr>
<td>Type of Course</td>
<td>Name of the Course</td>
<td>Credit</td>
<td>Marks</td>
</tr>
<tr>
<td>---------------------------------------------------</td>
<td>---------------------------------------------</td>
<td>--------</td>
<td>-------</td>
</tr>
<tr>
<td>Economics Core Course –XIII</td>
<td>Public Economics [Theory plus Tutorial]</td>
<td>5+1=6</td>
<td>100</td>
</tr>
<tr>
<td>Economics Core Course –XIV</td>
<td>Development Economics [Theory plus Tutorial]</td>
<td>5+1=6</td>
<td>100</td>
</tr>
<tr>
<td>Two Discipline Specific Elective (DSE) Courses: DSE-A and DSE-B</td>
<td>DSE-A(2) consists of two courses out of which students will have to select any one and DSE-B(2) consists of two courses out of which students have to select any one.</td>
<td>(5+1)=6</td>
<td>100 +</td>
</tr>
<tr>
<td>In Semester VI these two courses are denoted as DSE-A(2) and DSE-B(2)</td>
<td></td>
<td>(5+1)=6</td>
<td>100</td>
</tr>
<tr>
<td>One out of two courses from: DSE-A(2) One out of two courses from: DSE-B(2)</td>
<td>The two courses under DSE-A(2) are</td>
<td>(5+1)=6</td>
<td>100</td>
</tr>
<tr>
<td>(ECO-A-DSE-6-A(2)-TH-TU/P) and (ECO-A-DSE-6-B(2)-TH-TU)</td>
<td>Money and Financial Markets (MFM) : 5(Th) + 1(Tu) =6</td>
<td>(5+1)=6</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>Issues in Indian Economy (IIE) : 4(Th) +2 (P)= 6</td>
<td>(5+1)=6</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>[Students will have to select any one]</td>
<td>(5+1)=6</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>The two courses under DSE-B(2) are</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Environmental Economics (EE) : 5 (Th) +1 (Tu) =6</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Issues in Development Economics (IDE) : 5 (Th) +1 (Tu) =6</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>[Students will have to select any one]</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Total** | 24 | 400  |

- **In framing this syllabus the centralized structure of Calcutta University is followed.**
- **Special Note**

(i) The four Generic Elective papers (courses) for Economics (Honours) students will be from any two subjects other than Economics with the condition that Mathematics is to be one of the Generic Elective Subjects for Economics (Honours) students. Thus students having Economics Honours will select two other disciplines of 200 marks each under Generic Elective and one of the two disciplines should be Mathematics. Students will have to select two courses on Mathematics in any two of the four semesters 1, 2, 3 and 4 (where we find Generic Elective Courses). Thus two courses on Mathematics is compulsory for Economics (Honours). The other Discipline can be any other subject. For example, an Economics (Honours) student may opt for Mathematics as Generic Elective in 1st and 3rd semesters and Political Science (or Statistics) in 2nd and 4th Semesters.

(ii) Similarly Economics as Generic Elective will be offered to students having Honours in any subject other than Economics. The Generic Elective papers in Economics for Honours students (for students having Honours in any subject other than Economics) will be treated as Core Papers in Economics for General students (for BA/BSc General students having Economics as a Core paper under the General stream). This has been explained clearly in the context of the syllabus for BA/BSc Economics (General). Students having Honours in any subject other than Economics will select any two Disciplines or Subjects for the four Generic Elective papers offered.
Economics Core Course-I: ECO-A-CC-1-1-TH-TU

Introductory Microeconomics

Total Marks: 100 [Theory(Th) 65 + Tutorial(Tu) 15 + Internal Assessment 10 + Attendance: 10]

Total Credits: [5(Th) + 1(Tu)] = 6

No. of Lecture hours (Theory): 75, No. of Tutorial contact hours: 15

[For Semester-I]

ECO-A-CC-1-1-TH

Unit 1: Exploring the subject matter of Economics 10 lecture hours

1.1 Scope and Method of Economics: Wants, Scarcity, Competing Ends and Choice - Defining Economics, Thinking like an economist: Basic Economics Questions, Microeconomics and Macroeconomics, Normative Economics and Positive Economics

1.2 Principles of Microeconomics – principles of individual decision making and principles of economic interactions – Introduce trade off, opportunity cost, efficiency, marginal changes and cost-benefit, trade, market economy, property rights, market failure, externality and market power.

1.3 Interdependence and the Gains from Trade- production possibilities frontier and increasing costs, absolute and comparative advantage, comparative advantage and gains from trade.

1.4 Reading and working with graphs

Unit 2: Demand and Supply: How Markets Work 10 lecture hours

2.1 Elementary theory of Demand: Determinants of household demand and market demand, movement along and shift of the demand curve

2.2 Elementary theory of Supply: factors influencing supply, the supply curve, movement along and shift of the supply curve

2.3 The Elementary theory of market price: Determination of equilibrium price in a competitive market.

2.4 Market Adjustment without Government (with illustrations): the effect of shifts in demand and supply, the excess demand function, existence, uniqueness and stability of equilibrium

Unit 3: Market and Adjustments 10 lecture hours

3.1 The Evolution of Market Economies, Price System and the Invisible Hand

3.2 The Decision-takers - households, firms and central authorities

3.3 The Concepts of Markets- individual market, separation of individual markets, interlinking of individual markets. Difference among markets- competitiveness, goods and factor markets, free and controlled markets. Market and non-market sectors, public and private sectors, economies- free market, command and mixed.

3.4 Different goods: Public goods, Private goods, Common resources and Natural Monopolies.
Unit 4: Market Sensitivity and Elasticity

4.1 Importance of Elasticity in Choice-Decisions
4.2 Method of Calculation- Arc Elasticity, Point Elasticity-definition
4.3 Demand and supply Elasticities-types of elasticity and factors affecting elasticity, Demand Elasticity and Revenue, Long run and Short run elasticities of Demand and Supply
4.4 Income and Cross Price Elasticity
4.5 Applications: Case studies – OPEC and Oil Price, Illegal Drugs

Unit 5: Government Intervention

5.1 The Economic Role of Government with respect to Market: (i) Price Ceiling, Price Floor and Market Adjustment (with short case studies of agricultural administered price, minimum wage and rent control); (ii) Black Market; (iii) Tax and market adjustment ; (iv) Elasticity and Tax incidence
5.2 Comparison of markets with and without government

Unit 6: Utilitarian Approach

(Focus on intuitive explanation and diagrams. Learning to analyze without using calculus a must)
6.1 The History of Utility Theory – From Cardinal to Ordinal Approach.
6.2 Utility in Cardinal Approach- Utility and choice, Total Utility and Marginal Utility, Utility and choice-maximization, marginal utility, theory of demand
6.3 Ordinal utility: Assumptions on preference ordering, indifference curve, marginal rate of substitution and convexity of IC, budget constraint, consumers’ equilibrium-interior and corner, Derivation of Demand Curves from ICs, composite good convention. Application: Cash subsidy versus subsidy in kind
6.4 Price consumption curve, Income consumption curve and Engel curve. Price effect - Income and Substitution effect (Hicks and Slutsky), inferior goods and Giffen goods, Marshallian and compensated demand curves

ECO-A-CC-1-1-TU

Tutorial Contact Hours: 15

Texts
4. Pindyck, Rubinfeld and Mehta, Microeconomics, Pearson
References
5. Gravelle, H. and Rees,R. , Microeconomics, Prentice Hall
8. Satya Chakrabarty, Microeconomics, Allied Publishers

Economics Core Course II: ECO-A-CC-1-2-TH-TU

Mathematical Methods in Economics-I

Total Marks: 100 [Theory(Th) 65 + Tutorial(Tu) 15 + Internal Assessment 10+Attendance: 10]
Total Credits: [5(Th)+1(Tu)]=6 ,
No. of Lecture hours: 75, No. of Tutorial contact hours: 15
[For Semester-I]

ECO-A-CC-1-2-TH

1. Preliminaries
   • Sets and set operations; functions and their properties; number systems.
   • Convex sets; geometric properties of functions: convex functions, their characterizations, properties and applications; further geometric properties of functions: quasi-convex functions, quasi-concave functions, their characterizations, properties and applications.
   • Limit and continuity-Different Limit Theorems with proof-concept of first principle.
   • Uses of the concept of continuity.

2. Functions of one real variable
   • Continuous functions of different types and their graphs- quadratic, polynomial, power, exponential, and logarithmic.
   • Concept of derivatives. Limits and derivatives. L’ Hospital’s rule .Graphical meaning of derivatives. Derivatives of first and second order and their properties; convex, concave and linear function.
   • Application in economics- concept of marginal. Concept of elasticity. Concept of average function
3. **Single variable optimization** 10 lecture hours
   - Local and global optima; Geometric characterizations; characterizations using calculus.
     Significance of first and second order conditions.
   - Interpretation of necessary and sufficient conditions with examples.
   - Applications in Economics- profit maximization and cost minimization.

4. **Integration of functions** 10 lecture hours
   - Integration of different types of functions;
   - Methods of Substitution and integration by parts.
   - Applications in economics- obtaining total from the marginal.

5. **Matrix Algebra** 20 lecture hours
   - Matrix: its elementary operations; different types of matrix.
   - Rank of a matrix.
   - Determinants and inverse of a square matrix.
   - Solution of system of linear equations-Cramer’s rule; Eigen values and Eigen vectors.
   - System of nonlinear equations- Jacobian determinant and existence of solution.
   - The concept of comparative statics
   - Applications of Matrix Algebra in input-output analysis-the Leontief Static Open Model (LSOM) - the Hawkins-Simon conditions.

6. **Game Theory** 15 lecture hours
   - Concept of a game, strategies and payoffs
   - Zero-sum games- maxmin and minmax solutions
   - Dominant Strategy Equilibrium
   - Nash equilibrium
   - Nash equilibrium in the context of some common games – Prisoners’ Dilemma, Battle of Sexes, Matching Pennies

**ECO-A-CC-1-2-TU**

Tutorial contact hours :15

Texts :

References

Economics Core Course III: ECO-A-CC-2-3-TH-TU

Introductory Macroeconomics

Total Marks: 100 [Theory (Th) 65 + Tutorial(Tu) 15 + Internal Assessment 10 + Attendance: 10]

Total Credits: $5(Th)+1(Tu)=6$, 
No. of Lecture hours: 75, No. of Tutorial contact hours: 15

[For Semester-II]

ECO-A-CC-2-3-TH

1. National Income Accounting 20 lecture hours

2. Income Determination in the Short Run (Part-I): The Simple Keynesian Model in a Closed Economy 18 lecture hours
The Simple Keynesian Model (SKM) in a Closed Economy without Government- the Keynesian
Consumption Function; the Keynesian Saving Function; income determination in SKM; stability of equilibrium; the concept of effective demand- the concept of demand-determined output ; the Simple Keynesian Multiplier; the paradox of thrift; the SKM in a Closed Economy with Government; government expenditure and tax; the government expenditure multiplier and the tax rate multiplier; the balanced budget multiplier; the budget surplus; effects of tax changes and government purchases on budget surplus; the full employment budget surplus.

3. **The Classical system**  
18 lecture hours

Basic ideas of Classical Macroeconomics; Say’s Law and Quantity Theory of Money, Loanable fund theory; the Classical Theory of Income and Employment determination; full Employment and wage-price flexibility; Classical Dichotomy and Neutrality of Money.

4. **Macroeconomic Foundations -I**  
19 lecture hours

- The bond market as the mirror image of the money market-the Walras’ Law. Relationship between bond price and rate of interest- the concept of Keynesian liquidity preference schedule-speculative demand for money and liquidity trap.

**ECO-A-CC-2-3-TU**

**Tutorial Contact hours: 15**

**Textbooks:**

**References**
4. Ackley Gardner (old), Macroeconomic Theory, Macmillan, 1961

Economics Core Course IV: ECO-A-CC-2-4-TH-TU

Mathematical Methods in Economics-II

Total Marks: 100 [Theory(Th) 65 + Tutorial(Tu) 15 + Internal Assessment 10+Attendance: 10]
Total Credits: [5(Th)+1(Tu)]=6,
No. of Lecture hours: 75, No. of Tutorial contact hours:15
[For Semester-II]

ECO-A-CC-2-4-TH

1. Function of several variables
   14 lecture hours
   • Continuous and differentiable functions: partial derivatives and Hessian matrix.
   Homogeneous and homothetic functions.
   • Euler’s theorem, implicit function theorem (without proof) and its application to
   comparative statics problems.
   • Economic applications- the idea of level curves, theories of consumer behaviour and
   theory of production.

2. Multi-variable optimization
   35 lecture hours
   • Optimization of nonlinear functions: Convex, concave, and quasi-concave functions;
   Unconstrained optimization.
   • Constrained optimization with equality constraints- Lagrangian multiplier method; role of
   Hessian determinant.
   • Inequality constraints and Kuhn-Tucker Conditions.
   • Value function and Envelope theorem; Economic applications – consumer behaviour and theory
   of production.
   • Optimization of linear function: Linear programming; concept of slack and surplus variables
   (graphical solution only). Concept of convex set. The Duality Theorem
   • Economic Applications of Linear programming
3. **Difference Equations**  
   - Finite difference; Equations of first and 2\textsuperscript{nd} orders and their solutions
   - Application in Economics- Cobweb model, Multiplier-Accelerator model.

4. **Differential Equations**  
   - Solution of Differential equations of first order and second order of linear differential equations.
   - Economic application-price dynamics in a single market- multimarket supply demand model with two independent markets.
   - Qualitative graphic solution to 2x2 linear simultaneous non-linear differential equation system- phase diagram, fixed point and stability. Economic applications in microeconomics and macroeconomics

**ECO-A-CC-2-4-TU**

**Tutorial Contact hours: 15**

**Text:**

**References:**

**Economics Core Course V: ECO-A-CC-3-5-TH-TU**

**Intermediate Microeconomics –I**

*Total Marks: 100 [Theory(Th) 65 + Tutorial(Tu) 15 + Internal Assessment 10+Attendance: 10]*

*Total Credits: [5(Th)+1(Tu)]=6 ,*

*No. of Lecture hours: 75, No. of Tutorial contact hours:15*

[For Semester- III]

**ECO-A-CC-3-5-TH**

1. **Unit 1: Theories of Consumer Behaviour and Applications**
   1.1 Inter-temporal choice (saving and borrowing)
   1.2 Revealed preference
   1.3 Choice under uncertainty – utility function and expected utility, risk aversion and risk preference
   1.4 Applications of Consumer Behaviour in Construction of Price Indices – Laspeyers and Paasche’s indices

2. **Unit 2: Production and Costs**

2.1 Technology – general concept of Production Function, production with one and two variable inputs, total average and marginal products, short run and long run, returns to factor and returns to scale, Isoquants, marginal rate of technical substitution, isocost line and firm’s equilibrium, elasticity of substitution
2.2 Types of production functions- Cobb-Douglas, fixed-coefficient and CES functions
2.3 Cost structure- implicit cost, explicit cost, accounting cost, sunk cost, economic cost, fixed cost, variable cost, total, average and marginal cost. Determinants of short run cost, cost curves, cost minimization and expansion path, short versus long run cost curves, economies of scale.

3. **Unit 3: The Firm and Perfect Market Structure**

3.1 Organization, Firms and Profit Maximization
3.2 Marginal Revenue, Marginal Cost and Profit Maximization
3.3 Perfect competition- short run competitive equilibrium of the firm, short run supply curve of firm and industry, Output choice and competitive equilibrium in long run, Economic rent and profit, long-run industry supply- constant, increasing and decreasing cost.
3.4 Consumer and Producer surplus, welfare and efficiency of competitive equilibrium. Government intervention and dead weight loss, Application- Minimum prices and price supports ( price ceiling and price floors)

4. Unit 4: Input Market in Perfect Competition 

4.1 Basic concepts- derived demand, productivity of an input, marginal product of an input, marginal revenue product

4.2 Marginal productivity theory of distribution

4.3 Labor market-supply of labor, competitive labor markets

4.4 Land markets and rent

**ECO-A-CC-3-5-TU**

**Tutorial Contact hours: 15**

**Text**

1. Pindyck, Rubinfeld and Mehta, Microeconomics, Pearson


**References**


2. Gravelle, H. and Rees ,R., Microeconomics, Prentice Hall

3. Anindya Sen, Microeconomics, OUP

4. Satya Chakrabarty, Microeconomics, Allied Publishers


Economics Core Course VI: ECO-A-CC-3-6-TH-TU

Intermediate Macroeconomics-I

Total Marks: 100 [Theory(Th) 65 + Tutorial(Tu) 15 + Internal Assessment 10+Attendance: 10]

Total Credits: [5(Th)+1(Tu)] = 6,

No. of Lecture hours: 75, No. of Tutorial contact hours: 15

[For Semester- III]

ECO-A-CC-3-6-TH

1. Income Determination in the Short-run (Part-II) : The IS-LM Model

14 lecture hours


2. Aggregate Demand and Aggregate Supply- the Complete Keynesian Model

14 lecture hours

- Derivation of aggregate demand curve.
- Derivation of aggregate supply curves both in the presence and absence of wage rigidity.
- Equilibrium, stability, and comparative statics-effects of monetary and fiscal policies. Effects of wage cut.
- Unemployment equilibrium and its causes- possible solutions including real balance effect.

3. Keynes vs. Classics

10 lecture hours

- Keynesian vs classical system.
- Hybrid models under Classical/Keynesian framework.
- Friedman’s restatement of classical ideas


17 lecture hours

- Measures of money supply with special reference to India (M1, M2, M3 and M4)
- Balance sheet view of money supplied by the banking sector as a whole
- High powered money –definition
- Balance sheet of Reserve Bank of India and High powered money
- Balance sheet of Commercial banks and basic ideas of money multiplier theory.
- Deposit multiplier, currency multiplier, reserve multiplier, credit multiplier and money multiplier in the context of the theory of money supply
- Interest sensitivity of money supply and the slope of the LM curve.
• Monetary policy – Open Market Operations, Statutory Liquidity Ratio, Bank rate, variable reserve ratio, repo rate.
• Government Budget Deficit and Deficit Financing-Indian illustration. Deficit financing and monetary policy.

5. Inflation, Unemployment and Expectations  
20 lecture hours
• The concept of Inflationary Gap.
• Demand pull vs. Cost push inflation
• Mark-up inflation
• The concept of stagflation
• Central Bank’s role in controlling inflation: Monetary policy.
• Inflation and unemployment trade-off.
• Four models of aggregate supply: The Sticky-Wage Model, The Worker-Misperception Model, The Imperfect Information Model and The Sticky-Price Model.
• Deriving the Phillips Curve from Aggregate Supply Curve.
• Short run and long- run Phillips curve – role of adaptive expectations and rational expectations.
• Disinflation, Sacrifice Ratio and policy ineffectiveness.

ECO-A-CC-3-6-TU

Tutorial Contact hours: 15

Textbooks:
• N. Gregory Mankiw. Macroeconomics, Worth Publishers, 2010

References
• Ackley Gardner (old), Macroeconomic Theory, Macmillan, 1961
• Ghosh Chandana and Ghosh Ambar, Macroeconomics, PHI Learning Pvt Ltd, 2014
• Venieris, Y.P. and Sebold F.D., Macroeconomics: Models and Policy, John Wiley and Sons, 1977
• Sikdar Soumyen, Principles of Macroeconomics, Oxford University Press

Economics Core Course VII: ECO-A-CC-3-7-TH-TU

Statistical Methods for Economics

Total Marks: 100 [Theory(Th) 65 + Tutorial(Tu) 15 + Internal Assessment 10+Attendance: 10]

Total Credits: [5(Th)+1(Tu)]=6

No. of Lecture hours: 75, No. of Tutorial contact hours: 15

[For Semester III]

ECO-A-CC-3-7-TH

1. Introduction and Overview 6 lecture hours
   • Subject-matter - the distinction between population and sample [1 lecture hour]
   • Representation of data- graphical (line diagram, bar diagram, pie chart)
     and tabular method [2 lecture hours]
   • Frequency Distribution [3 lecture hours]

2. Descriptive Statistics 13 lecture hours
   • Measures of central tendency(arithmetic mean, geometric mean, harmonic mean, median and
     mode, and their properties, Quartiles,Deciles and Percentiles) [3 lecture hours]
   • Dispersion(range, quartile deviation, mean deviation, standard deviation, coefficient of variation,
     coefficient of mean deviation, coefficient of quartile deviation, Lorenz curve and Gini coefficient)
     [4 lecture hours]
   • Moments, Skewness and Kurtosis (definition, computation) [2 lecture hours]
   • Correlation and Regression (definition, computation, properties) [4 lecture hours]

3. Elementary Probability Theory 10 lecture hours
   • Sample spaces and events (concepts and definitions using set theory) [2 lecture hours]
   • Axiomatic definition of probability and properties, theorem of total probability [3 lecture hours]
   • Conditional probability, theorem of compound probability [3 lecture hours]
   • Bayes' theorem and its applications. [2 lecture hours]

4. Probability Distributions 18 lecture hours
   • Random variable(discrete and continuous) [1 lecture hour]
   • Probability distributions (pmf, pdf. Distribution functions) [2 lecture hours]
• Expected values of random variables (mean, variance, raw moment, central moment, moment generating functions) [3 lecture hours]

• Properties of commonly used discrete and continuous distributions:
  - Binomial - (derivation of pmf, mean, variance, moments, moment generating functions, problems) [3 lecture hours]
  - Poisson - (derivation of pmf, mean, variance, moments, moment generating functions, problems) [3 lecture hours]
  - Normal - (derivation of pdf, mean, variance, moments, moment generating functions, problems) [3 lecture hours]

• Joint distribution functions of random variables (discrete and continuous) - joint pdf (pmf), marginal pdf (pmf), conditional pdf (pmf) [3 lecture hours]

5. Sampling  14 lecture hours

• Principal steps in a sample survey (concepts of population, sample, parameter, statistic) [2 lecture hours]

• Methods of sampling-
  - SRSWR, SRSWOR (use of random sampling numbers) [2 lecture hours]
  - Stratified sampling (basic concepts only) [1 lecture hour]
  - Multi-staged sampling (basic concepts only) [1 lecture hour]

• Sampling distribution of sample mean and sample proportion
  - Mean and standard error both in SRSWR and SRSWOR [4 lecture hours]
  - Standard normal, chi-square, Student’s t and F distributions – definitions, important properties (mean and variance) [4 lecture hours]

6. Statistical inference  14 lecture hours

• Point estimation - Properties of a good estimator; [4 lecture hours]

• Basic principles of
  - Ordinary Least Square, [2 lecture hours]
  - Maximum Likelihood Method [1 lecture hour]
  - Method of Moments; [1 lecture hour]

• Interval estimation, [2 lecture hours]

• Testing of hypothesis (basic concepts of null hypothesis, alternative hypothesis, type I and Type II errors, power of a test, p-value) [4 lecture hours]

ECO-A-CC-3-7-TU

Tutorial contact hours: 15 [for revision, doubt clearing, solving problems]
Text books

Reference books

Skill Enhancement Course I: ECO-A-SEC-3-A(1)-TH

Data Analysis [DA]

Total Marks: 100 [Theory (Th) 80 + Internal Assessment 10+Attendance: 10]

Total Credits: 2,
No. of Lecture hours: 30
[For Semester III]

Unit 1: Collection and representation of data 12 lecture hours
1.1 Collection of data (some methodological issues) [4 lecture hours]
1.1.1 Census
1.1.2 Sample survey
1.2 Representation of data [2 lecture hours]
1.3 The basics of data management in Stata / R / Eviews / SPSS / MS Excel [6 lecture hours]

Unit 2: Indian Official Statistics (Basic concepts) 18 lecture hours
1. Central Statistical Office (CSO) – National Accounts Statistics (NAS), Industrial Statistics (ASI, IIP) [6 lecture hours]
3. Census of India – Population Census 2011 [4 lecture hours]
4. Reserve Bank of India (RBI) – Handbook of Statistics on Indian Economy (Selected parts) [2 lecture hours]

Suggested Readings:
3. GOI, SRS Statistical Report 2016, Office of the Registrar General & Census Commissioner, India
Skill Enhancement Course I: ECO-A-SEC-3-A(1)-TH

Rural Development [RD]

Total Marks: 100 [Theory(Th) 80 + Internal Assessment 10+Attendance: 10]

Total Credits: 2,

No. of Lecture hours: 30

[For Semester III]

1. Aspects of Rural Development 6 lecture hours
   - Concept of Rural Development
   - Rural Development vs. Agricultural Development
   - Role of NGOs in Rural Development
   - Rural Non Farm Sector and Rural Development

2. Panchayats and Rural Development 5 lecture hours
   - Decentralized Planning and Participatory Development
   - Role of Panchayats in Decentralized Rural Development
   - Participatory Rural Appraisal
   - Panchayats and Rural Development in West Bengal

3. Rural Credit and Self Help Groups(SHGs) 11 lecture hours
   - Role National Bank for Agriculture and Rural Development (NABARD) for promoting Rural Development
   - Constraints of micro-enterprises in rural areas
   - Credit needs for rural non farm sector.
   - The concept of Micro credit
   - Micro credit and the role of Grameen Bank
   - Need for SHG for formation and features of SHG
   - SHGs in India

4. Critical Evaluation of Selected Government Programmes and Rural Development 8 lecture hours
   - Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) and Rural Development
   - Child labour and school drop-out in rural areas. Mid-day Meal and Rural Development
   - National Rural Health Mission (NRHM) and Rural Development
• Pradhan Mantri Gram Sadak Yojana (PMGSY) and Rural Development

References
2. K.G. Karmakar, Rural Credit and Self-Help Groups, Sage Publications, New Delhi
3. S.Sau, Rural Industrialization –Development Trajectory in India, Farma K.L.M., Kolkata
5. Datt and Sundharam (Revised by G.Datt and A. Mahajan), Indian Economy, 70th edition, S. Chand
18. Latest Reports on Panchayati Raj Development in West Bengal

Economics Core Course VIII: ECO-A-CC-4-8-TH-TU

Intermediate Microeconomics II

Total Marks: 100 [Theory (Th) 65 + Tutorial(Tu) 15 + Internal Assessment 10+Attendance: 10]
Total Credits: [5(Th)+1(Tu)]=6,
No. of Lecture hours: 75, No. of Tutorial contact hours: 15
[For Semester IV]

ECO-A-CC-4-8-TH

Unit 1: Imperfect Market Structure 40 lecture hours
1.1 Monopoly and barriers to entry- output determination and price rule, measure and sources of monopoly power, social costs of monopoly power-deadweight loss
1.2 Pricing with market power- first, second and third degree price discrimination, multiplant monopoly
1.3 Monopolistic competition- short run and long run equilibrium, excess capacity
1.4 Oligopoly- Oligopoly equilibrium as Nash equilibrium, Cournot, Bertrand and Stackelberg Model- use of isoprofit curves and simple game theoretic interpretation. Sweezy’s kinked demand
curve model and non-collusive equilibrium. Competition versus collusion- the Prisoners’
Dilemma. Collusive Oligopoly –Cartels and Price Leadership

Unit 2: Input market under Imperfect Competition 5 lecture hours
2.1 Monopsony, bilateral monopoly in labour market

Unit 3: General Equilibrium, Efficiency and Welfare 30 lecture hours
3.1 General Equilibrium and Economic Efficiency- Exchange, production and welfare, Pareto
Optimality, Edgeworth box and contract curve, Pareto efficiency and perfect competition
3.2 Reasons for Market failure, Pareto efficiency and market failure (externalities and public goods),
property right and Coase Theorem
3.3 Markets with asymmetric information-adverse selection, moral hazards, agency problems
(concepts only) ECO-A-

CC-4-8-TU Tutorial
Contact Hours: 15

Text
• Pindyck, Rubinfeld and Mehta, Microeconomics, Pearson

References
4. Anindya Sen, Microeconomics, OUP
6. Satya Chakrabarty, Microeconomics, Allied Publishers
Prentice Hall India,1981
Economics Core Course IX: ECO-A-CC-4-9-TH-TU

Intermediate Macroeconomics II

Total Marks: 100 [Theory(Th) 65 + Tutorial(Tu) 15 + Internal Assessment 10 + Attendance: 10]

Total Credits: [5(Th)+1(Tu)] = 6,

No. of Lecture hours: 75, No. of Tutorial contact hours: 15

[For Semester IV]

ECO-A-CC-4-9-TH

1. Basic Tenets of New Classical and New Keynesian Theories 20 lecture hours
   - New Classical Theory-The concept of rational expectations and the theory of real business cycle-introductory ideas
   - New Keynesian Theory- nominal rigidities and real rigidities, rigidities in interest rates and credit rationing-introductory ideas

2. Macroeconomic Foundations -II 20 lecture hours
   - Consumption: Keynesian consumption function; Fisher’s theory of optimal intertemporal choice; life-cycle and permanent income hypotheses; Dusenberry’s relative income hypothesis; rational expectations and random-walk of consumption expenditure.
   - Demand for money: Regressive Expectations and Tobin’s portfolio choice models; Baumol’s inventory theoretic money demand.

3. Economic Growth 35 lecture hours
   - Harrod and Domar models of economic growth.
   - Solow one sector growth model-golden rule -dynamic efficiency.
   - Technological progress ,
   - Elements of endogenous growth theory-basic ideas-the AK model

ECO-A-CC-4-9-TU

Tutorial Contact hours: 15

Textbooks:
- Ghosh Chandana and Ghosh Ambar, Macroeconomics, PHI Learning Pvt Ltd, 2014

References
- Ghosh Chandana and Ghosh Ambar, Economics of the Public Sector, PHI Learning Pvt Ltd, 2008
• Snowdon and Vane (ed), A Macroeconomics Reader, Routledge, Taylor and Francis Group.
• Barro, R.J. and Xavier Sala-i-Martin , Economic Growth,
• Errol D'Souza. Macroeconomics, Pearson Education (New Delhi), 2009.

Economics Core Course X: ECO-A-CC-4-10-TH-TU

Introductory Econometrics

Total Marks: 100 [Theory(Th) 65 + Tutorial(Tu) 15 + Internal Assessment 10+Attendance: 10]

Total Credits: [5(Th)+1(Tu)] = 6 ,
No. of Lecture hours: 75, No. of Tutorial contact hours: 15

[For Semester IV]

ECO-A-CC-4-10-TH

1. Nature and Scope of Econometrics
   1.1 Distinction between Economic Model and Econometric model [1 lecture hour]
   1.2 Concept of stochastic relation, Role of random disturbance in econometric model [1 lecture hour]
   1.3 Types of data [1 lecture hour]
   1.4 Application of Econometrics in different branches of social science [1 lecture hour]

2. Classical Linear Regression Model (Simple linear regression and multiple linear regression):
   part 1
   2.1 The classical assumptions (basic interpretation) [1 lecture hour]
   2.2 Concepts of population regression function and sample regression function [3 lecture hours]
   2.3 Estimation of model by method of ordinary least squares (Derivation in simple linear model (SLRM) and multiple linear model (MLRM) with two regressors only) [6 lecture hours]
   2.4. Simple correlation, partial correlation and multiple correlation (Definition, and interpretation in the context of SLRM and MLRM) [2 lecture hours]
   2.5 Limitations of SLRM and additional complications in MLRM [2 lecture hours]
2.6 Economic interpretations of the estimated model [1 lecture hour]

3. Classical Linear Regression Model (Simple linear regression and multiple linear regression): part 2 10 lecture hours
3.1 Properties of the Least Squares Estimators (BLUE) in SLRM- Gauss-Markov theorem [4 lecture hours]
3.2 Qualitative (dummy) independent variables – intercept dummy and slope dummy (only interpretation of the model) [3 lecture hours]
3.3 Forecasting - Ex-post forecast and Ex-ante forecast, forecast error (only for two variable model) [3 lecture hours]

4. Statistical inference in linear regression model 26 lecture hours
4.1 Use of standard normal, chi2, t, and F statistics in linear regression model [9 lecture hours]
4.2 Testing hypothesis [12 lecture hours]
   Single test (t test and chi2 test)
   Joint test (F test)
4.3 Goodness of fit (in terms of R², adjusted R² and F statistic), Analysis of Variance (ANOVA) [3 lecture hours]
4.4 Statistical significance and economic importance [2 lecture hours]

5. Violations of Classical Assumptions 12 lecture hours
5.1 Multicollinearity - Consequences, Detection (Variance Inflationary Factor (VIF)) and Remedies [4 lecture hours]
5.2 Heteroscedasticity - Consequences, Detection (Lagrange Multiplier test) and Remedies [4 lecture hours]
5.3 Autocorrelation - Consequences, Detection (Durbin-Watson test) and Remedies [4 lecture hours]

6. Specification Analysis 8 lecture hours
6.1 Omission of a relevant variable [2 lecture hours]
6.2 Inclusion of irrelevant variable [2 lecture hours]
6.3 Tests of specification errors [2 lecture hours]
6.4 Testing for linearity and normality assumptions [2 lecture hours]

ECO-A-CC-4-10-TU

Tutorial Contact hours: 15

Text Books

**Reference Books**


---

**Skill Enhancement Course II: ECO-A-SEC-4-B(2)-TH**

**Research Methodology**

*Total Marks: 100 [Theory (Th) 80 + Internal Assessment 10+Attendance: 10]*

*Total Credits: =2,*

*No. of Lecture hours: 30,*

[For Semester IV]

**Unit 1 : Methodological Issues 1**

- 10 lecture hours

- Locating the basic issues- theme based literature survey and motivation behind any study-objectives of the study-development of writing skills
- Designing the sampling frame in case of field survey- the role of pilot survey
- The role of random numbers in drawing random sample
- Methods behind preparation of questionnaire in case of field survey
- Data entry after field survey
- Tabular representation of data and graphs for data interpretation

**Unit 2: Methodological Issues 2**

- 20 lecture hours

- Theoretical and Empirical Research in Economics.
- Common sections of an ideal research paper in Economics.
- Illustrations of empirical research work. Reporting the regression results and interpretation of the results: the role of statistical inference.[ The course instructor should focus on framing the testable hypothesis and the role of statistical inference in empirical research]
- Illustrations of theoretical research: specification of the model, closing the model, checking stability of the model for meaningful comparative static results. [The course instructor should focus on the role of stability analysis in theoretical models by showing the method of linearizing non-linear differential equations. Illustrations can be made from IS-LM model by using trace and determinant conditions of the Jacobian matrix-the role of phase diagrams]
- Role of footnotes or end notes in a research paper
- Bibliography, reference and citation
• Writing the abstract of a research paper
• Key words and JEL Classification
• Presentation of a research paper through power point. Basic rules to be followed for a good presentation. Role of diagrams, graphs, pictures and charts.

Suggested Readings

Skill Enhancement Course II: ECO-A-SEC-4-B(2)-TH
Managerial Economics

Total Marks: 100 [Theory (Th) 80 + Internal Assessment 10+Attendance: 10]

Total Credits: =2,
No. of Lecture hours: 30,
[For Semester IV]

1. Demand, Cost and Profit Analysis 6 lecture hours
   • Demand for durable and non durable products, demand forecasting techniques
   • Cost estimation
   • Cost-volume-profit analysis (break even analysis)- objectives and assumptions;
     determination of breakeven point, limitations of c-v-p analysis

2. Pricing Policies and practices 3 lecture hours
   • Factors governing prices, price discounts and differentials, price forecasting

3. Capital Budgeting 8 lecture hours
   • What is capital budgeting, need for capital budgeting, different steps in capital budgeting, Capital budgeting appraisal methods – payback method, accounting rate of return method, net present value method, interest rate of return method, benefit cost ratio method. Capital rationing, alternative methods of financing investments

4. Cost of capital 5 lecture hours
   • Cost of debt capital, cost of share capital, cost of equity capital, cost of retained earnings
5. **Inventory Management**  
   **8 lecture hours**
   
   - Inventory costs, concepts of average inventory, various inventory models- economic order quantity, optimum number of orders per year, optimum number of days supply per order.

**References**

- Varshney R.L., and Maheshwari K.L. – Managerial Economics, Sulatn Chand, N Delhi
- Keat P. G. and Young P.K.Y – Manageerial Economics, Pearson Education, N Delhi
- Mehta P.L - – Managerial Economics, Sulatn Chand, N Delhi
- Samuelson W.F and Marks S.G - – Managerial Economics, Wiley Student Education
- Clarke T. International Corporate Governance, Routledge.

---

**Economics Core Course XI: ECO-A-CC-5-11-TH-TU**

**International Economics**

*Total Marks: 100 (Theory(Th) 65 + Tutorial(Tu) 15 + Internal Assessment 10+Attendance: 10)*

*Total Credits: [5(Th)+1(Tu)] = 6 ,*

*No. of Lecture hours: 75, No. of Tutorial contact hours: 15*

[Semester V]

**ECO-A-CC-5-11-TH**

1. **Absolute and Comparative Advantages of Trade**  
   **9 lecture hours**
   
   - Adam Smith’s theory of absolute advantage.
   - David Ricardo’s theory of comparative advantage.
   - Arbitrage as the basis and direction of trade; fundamental sources of cross-country price differences and arbitrage-concept of comparative advantage; externalities, regulation and perverse comparative advantage
   - One factor economy, production possibility frontier, relative demand and relative supply, terms of trade, trade in the Ricardian world, determination of intermediate TOT, complete vs incomplete specialization, complete specialization and gains from trade.

2. **The Building Blocks of Trade Theory**  
   **14 lecture hours**
   
   - The concept of community indifference curve-Justification and properties.
   - The need for trade indifference curves, derivation of trade indifference curves, properties of trade indifference map, Offer curves and its properties. Three important elasticities- the elasticity of offer curves, the elasticity of demand for imports, the elasticity of supply of exports. International equilibrium and offer curves, terms of trade (TOT) and stability, the Marshall-Lerner condition,
   - Gains from Trade (GFT) theorem, illustration of GFT, decomposition of GFT, substitution possibilities and magnitude of GFT.
• Production structure for neo-classical trade models, role of constant returns to scale, the concept of unit isoquants, duality in the production structure, significance of the envelope condition in trade models

3. Factor Endowment and Trade (Heckscher-Ohlin-Samuelson Model) 15 lecture hours
• Heckscher-Ohlin (HO) theorem and price vs physical definitions of relative factor abundance.
• Role of homotheticity of tastes in the context of physical definition
• Factor Intensity Reversal in the context of price and physical definitions and invalidity of HO Theorem.
• Factor intensity ranking, one-to-one correspondence between commodity price ratio & factor price ratio (Stolper-Samuelson theorem), One to one correspondence between endowment ratio and production proportion (Rybczynski theorem).
• The Factor Price Equalization Theorem. Factor price equalization and complete specialization.
• Incomplete Specialization, Factor price equalization and Factor Intensity Reversal
• Empirical studies- Leontief Paradox.

4. Applications of Neo-classical Trade Models for developing countries 10 lecture hours
• Jones (1965) Heckscher-Ohlin type 2x2(two factors-two commodities) full employment model for small open developing economies. Basic structure –significance of the assumption of constant returns to scale- the decomposability property-the capital intensity condition in physical and value terms- Implications of Stolper-Samuelson and Rybczynski theorems-the price and output magnification effects.
• Jones (1971) 3x2(three factors-two commodities) specific-factor model. Basic structure- significance of the assumption of constant returns to scale-the indecomposability property. Implications of price magnification effects in specific factor model.

5. Trade Policy 12 lecture hours
• Partial Equilibrium Analysis of Tariff - cost–benefit, Quota, Quota- Tariff equivalence & non-equivalence, monopoly effects of quota, subsidy and voluntary export restraint.
• General Equilibrium Analysis- distinction between large and small economy, welfare effects of a tariff on small country and large country. Tariff ridden offer curve, Tariff war, Optimum tariff for large economy, Metzler’s Paradox.

6. Open Economy Macroeconomics and Balance of Payments 15 lecture hours
• Determination of equilibrium income in open economy. Foreign Trade Multiplier with & without repercussion effects.
Balance of Payment accounts in an open economy. Autonomous and accommodating transactions.


**ECO-A-CC-5-11-TU**

Tutorial Contact hours: 15

**Texts**

1. P. Krugman and M. Obstfeld- International Economics (8th Edition) ; Pearson Education
2. R. Caves, J. Frankel and R.W. Jones – World Trades & Payments (9th Ed); Pearson Education.
3. Rajat Acharyya- International Economics; Oxford University Press

**References**


**Economics Core Course XII: ECO-A-CC-5-12-TH-TU**

**Indian Economy**

*Total Marks: 100*

[Theory (Th) 65 + Tutorial Based Term Paper (Tu) 15 + Internal Assessment 10+Attendance: 10]

*Total Credits: [5(Th)+1(Tu)]* = 6,

*No. of Lecture hours: 75, No. of Tutorial Based Term Paper contact hours: 15*

**ECO-A-CC-5-12-TH**

1. Economic Development since Independence 20 lecture hours

- Growth and development under different policy regimes (from planning to market based development)
  - Objectives, achievements and failures of Planning [4 lecture hours]
  - Economic crisis during the late 1980s [3 lecture hours]
- Economic Reforms –Critical Analysis  [3 lecture hours]
- Structural changes in the post-reforms period  [5 lecture hours]
- Regional variation of growth and development  [5 lecture hours]

2. Population and Human Development  15 lecture hours
- Demographic trends and issues  [6 lecture hours]
- Education and health:Basic problems and Government measures, Right to Education (RTE) Act 2009  [9 lecture hours]

3. Growth and Distribution  20 lecture hours
- Trends in GDP and per capita GDP  [5 lecture hours]
- Growth, poverty and inequality  [5 lecture hours]
- Youth unemployment (School Transition to Work)  [5 lecture hours]
- Policy perspectives in growth and distribution  [5 lecture hours]

4. Economic Reforms in India  20 lecture hours
- Banking sector reforms  [5 lecture hours]
- Reforms in tax policy  [5 lecture hours]
- Reforms in the external sector  [5 lecture hours]
- Reforms in Labour market  [5 lecture hours]

ECO-A-CC-5-12-TU

Tutorial Based Term Paper Contact Hours: 15 (for review classes, presentation by the students)

A term paper is to be prepared by the student under Tutorial Based Term Paper on any topic under the four broad themes covering the syllabus for the tutorial. Term paper should cover a literature survey of the topic along with a critical evaluation of the policy measures undertaken in the Indian context to tackle the specified problem. It should be prepared under a full time teacher of the subject belonging to the institution. All total 15 hours are allotted for a term paper. It is to be evaluated (all total 15 marks) jointly by an internal and an external examiner(if it is permitted under University rules) on the basis of the content of the term paper along with viva-voce on the term paper.

References
- Jean Dreze and Amartya Sen: Economic Development and social opportunity, OUP
• Mihir Rakshit, 2011, Macroeconomics of Post-Reform India, OUP
• Sukhomy Chakraborty: Development Planning: The Indian Experience, OUP
• Uma Kapila: Indian Economy since independence, Academic Foundation
• Ahluwalia and Little (ed): India’s Economic Reforms and Development, OUP
• Joshi and Little: India’s Economic Reforms, OUP
• Panchanan Das. (2012), Wage Inequality in India - Decomposition by Sector, Gender and Activity Status, Economic and Political Weekly, 47(50), pp. 58-64
• S.L. Shetty, 2007, —India’s Savings Performance since the Advent of Planning, in K.L. Krishna and A. Vaidyanathan, editors, Institutions and Markets in India’s Development.
• Geeta G. Kingdon, 2007, —The Progress of School Education in India, Oxford Review of Economic Policy
• K. James, 2008, —Glorifying Malthus: Current Debate on Demographic Dividend in India Economic and Political Weekly, June.
Discipline Specific Elective – A(1):

[Theory (Th) 50+ Practical (P) 30 + Internal Assessment 10 + Attendance: 10]
Total Credits: [4(Th)+2(P)]=6 ,
No. of Lecture hours: 60, No. of Practical hours: 60/No. Of Practical classes: 30
[Semester –V]

ECO-A-DSE-5-A(1)–TH
1. Steps in empirical research 10 lecture hours
   1.1 Use of econometric models in empirical research – some basic concepts [5 lecture hours]
   1.2 The basic commands in Stata / R [5 lecture hours]

2. Regression Diagnostics and Specification 20 lecture hours
   2.1 Misspecification [4 lecture hours]
   2.2 Functional forms [4 lecture hours]
   2.3 Model selection [4 lecture hours]
   2.4 Application with Stata / R [8 lecture hours]

3. Application of Regression Analysis 30 lecture hours
   3.1 Cross section analysis – Linear regression model with two regressors (by using survey data like NSSO with Stata / R) [6 lecture hours]
   3.2 Time series analysis (very preliminary level) – Basic concepts of time series, Estimating linear trend (by using NAS with Stata / R) [12 lecture hours]
   3.3 Panel data analysis – basic concepts of fixed effects model; random effects model – (Application with Indian Official Statistics using Stata / R) [12 lecture hours]

ECO-A-DSE-5-A(1)-P
Total Practical Hours: 60, No of Practical Classes: 30
Applications of use of softwares STATA or R will be demonstrated in the computer laboratory in practical classes and the practical examination will be conducted in the usual manner as mentioned in CSR.

Text Books
1. Christopher F. Baum, (2006), An Introduction to Modern Econometrics Using Stata, Stata Press
Discipline Specific Elective – A(1):
ECO-A-DSE-5-A(1)-TH-TU

Economic History of India (1857-1947) [EH1]

Total Marks: 100 [Theory(Th) 65 + Tutorial(Tu) 15 + Internal Assessment 10+Attendance: 10]
Total Credits: [5(Th)+1(Tu)]=6,

No. of Lecture hours: 75, No. of Tutorial contact hours: 15
[Semester- V ]

ECO-A-DSE-5-A(1) –TH

1. Impact of British rule on India 30 lecture hours
   - Deindustrialization
   - Commercialization of agriculture
   - Economic Drain

2. Aspects of Economic Policies in British India 45 lecture hours
   - Land policy
   - Policy of Discriminating Protection
   - Early Industrial Development and Managing Agency System
   - Currency and monetary policy
   - Development of Infrastructure – Railways

ECO-A-DSE-5-A(1)-TU

Tutorial contact hours: 15

References

12. MD Morris, Emergence of an Industrial Labour Force in India, OUP 1965, Chapter 11, Summary and Conclusions.
18. Visaria and P. Visaria, Population. CEHI, Chapter

Discipline Specific Elective-B(1):
ECO-A-DSE-5-B(1)-TH-TU
Comparative Economic Development (1850-1950) [CED]
Total Marks: 100 [Theory(Th) 65 + Tutorial(Tu) 15 + Internal Assessment 10+Attendance: 10]
Total Credits: [5(Th)+1(Tu)]=6 ,
No. of Lecture hours: 75, No. of Tutorial contact hours: 15
[Semester-V]

ECO-A-DSE-5-B(1)-TH

1. Strategies and Policies for Economic Development 30 lecture hours
   • Laissez-faire and free trade
   • Strategy of industrialization in Soviet Union.

2. Regions of contemporary development 45 lecture hours
   • Success stories of Asia : Japan, South East Asia and China
   • Crisis and failures of Latin America and Africa


**ECO-A-DSE-5-B(1)-TU**

**Tutorial Contact hours: 15**

**General References**

- Ha-Joon Chang. 2003. "Kicking Away the Ladder: The "Real" History of Free Trade", Foreign Policy, 30 December
- Alice Amsden. Ch. 6 of Escape from Empire: The Developing Worlds Journey through Heaven and Hell, MIT Press.
- Mark Weisbrot, Latin America: The End of an Era, Center for Economic and Policy Research, December 2006


Discipline Specific Elective-B(1):
ECO-A-DSE-5-B(1)-TH-TU

Financial Economics [FE]

Total Marks: 100 [Theory(Th) 65+ Tutorial(Tu) 15 + Internal Assessment 10+Attendance: 10]

Total Credits: [5(Th)+1(Tu)]=6 ,

No. of Lecture hours: 75, No. of Tutorial contact hours: 15
[Semester-V ]

ECO-A-DSE-5-B(1)-TH

1. Investment Theory and Portfolio Analysis 35 lecture hours

• Deterministic cash-flow streams: Basic theory of interest; discounting and present value; internal rate of return; evaluation criteria; fixed-income securities; bond prices and yields; interest rate sensitivity and duration; immunisation; the term structure of interest rates; yield curves; spot rates and forward rates.

• Single-period random cash flows: Random asset returns; portfolios of assets; portfolio mean and variance; feasible combinations of mean and variance; mean-variance portfolio analysis: the Markowitz model and the two-fund theorem; risk-free assets and the one-fund theorem.

• CAPM: The capital market line; the capital asset pricing model; the beta of an asset and of a portfolio; security market line; use of the CAPM model in investment analysis and as a pricing formula.

2. Options and Derivatives 20 lecture hours

• Introduction to derivatives and options; forward and futures contracts; options; other derivatives; forward and future prices; stock index futures; interest rate futures; the use of futures for hedging; duration-based hedging strategies; option markets; call and put options; factors affecting option
prices; put-call parity; option trading strategies: spreads; straddles; strips and straps; strangles; the principle of arbitrage; discrete processes and the binomial tree model; risk-neutral valuation.

3. Corporate Finance  
   **20 lecture hours**
   - Patterns of corporate financing: common stock; debt; preferences; convertibles; Capital structure and the cost of capital; corporate debt and dividend policy; the Modigliani-Miller theorem.

**ECO-A-DSE-5-B(1)-TU**

**Tutorial Contact hours: 15**

**Text**


**References**


**Economics Core Course XIII: ECO-A-CC-6-13-TH-TU**

**Public Economics**

*Total Marks: 100 [Theory(Th) 65 + Tutorial(Tu) 15 + Internal Assessment 10 + Attendance: 10]*

*Total Credits: [5(Th)+1(Tu)] = 6,  
No. of Lecture hours: 75, No. of Tutorial contact hours: 15*

[Semester VI]

**ECO-A-CC-6-13-TH**

**Unit 1. Government in a Market Economy**  
   **15 lecture hours**
   - Market failure and externalities; public and merit goods;
   - Government intervention;
   - Public Expenditure for financing development

**Unit 2. Choice and Public Economics**  
   **20 lecture hours**
   - Characteristics of Pure Public Good; Distinction between Pure Public Good and Private Good;
• Market Failure in case of Pure Public Good Optimal provision of Public Goods - Private Provision and Public Provision of Public Goods,
• Lindahl Equilibrium,
• Voting Equilibrium.

Unit 3. The Revenue and Expenditure of the Government 20 lecture hours
• Classification of Taxes; Canons of Taxation;
• Principles of Taxation - Benefit Principle, Equal Sacrifice Principle, Ability to Pay Principle;
• Incidence and Burden of Taxes;
• Effects of taxation on income distribution, work efforts, and on savings,
• The Laffer curve;
• Comparison between direct and indirect taxes – income and substitution effects;
• Optimal Taxation

Unit 4. Public Finance 20 lecture hours
• Meaning and Classification of Public Expenditure - government budget and its types, government expenditure and tax multipliers, balanced budget multiplier;
• Meaning of Public Debt; Sources of Public Borrowings: internal and external borrowing; Effects of Public Debt.
• Indian Public Finance – Fiscal Federalism in India

ECO-A-CC-6-13-TU

Tutorial contact hours: 15

References:
• J. F. Due and A. F. Friedlander. Government Finance-Economics of Public Sector, AITBS Publishers and Distributors, 1994
• Amaresh Bagchi (ed), Readings in Public Finance, OUP
Economics Core Course XIV: ECO-A-CC-6-14-TH-TU

Development Economics

Total Marks: 100 [Theory(Th) 65 + Tutorial(Tu) 15 + Internal Assessment 10+Attendance: 10]

Total Credits: [5(Th)+1(Tu)]=6 ,

No. of Lecture hours: 75, No. of Tutorial contact hours: 15

[Semester VI]

ECO-A-CC-6-14-TH

1. Meaning of Economic Development 10 lecture hours
   • Income Approach and Capability Approach,
   • Construction and interpretation of HDI; international variations in development measures; comparing development trajectories across nations and within them.
   • Dependency school of development.

2. Poverty and Inequality 15 lecture hours
   • Inequality axioms; a comparison of commonly used inequality measures.
   • Gender Inequality, connections between inequality and development.
   • Poverty measurement, HPI; poverty traps and path dependence of growth processes.
   • Vicious Circle of Poverty Hypothesis

3. Dual Economy Models 20 lecture hours
   • The concept of surplus labour and disguised unemployment
   • Peasants and Dualism with and without surplus labour
   • Interdependence of agriculture and Industry (Lewis model, Ranis-Fei model)
   • Rural-Urban Migration (Harris- Todaro model)

4. Population Growth and Economic Development 10 lecture hours
   • Basic concepts (Birth and Death Rates, mortality, fertility)
   • Demographic transition theory
   • Cost of children, externalities
   • Low Level Equilibrium Trap models and their criticism-critical minimum effort theory (Nelson and Leibenstein).

5. Development Strategies 10 lecture hours
   • Balanced vs. Unbalanced Growth Theories
   • Choice of Techniques
6. Political Institutions and the State 10 lecture hours

- Definition of institutions, Evolution of Political and Economic Institutions.
- The determinants of democracy.
- Alternative institutional trajectories and their relationship with economic performance.
- Within-country differences in the functioning of state institutions. State ownership and regulation.
  Government failures and corruption.

ECO-A-CC-6-14-TU

Tutorial Contact hours: 15

Texts

References
- Meier and Rauch (ed)- Leading Issues in Development Economics, OUP
- Hayami and Godo, Development Economics, OUP
- Thirlwall; Growth and Development. 5th Edition

Discipline Specific Elective –A(2):

ECO-A-DSE-6-A(2)-TH-TU

Money and Financial Markets [MFM]

Total Marks: 100 [Theory(Th) 65 + Tutorial(Tu) 15 + Internal Assessment 10 + Attendance: 10]

Total Credits: [5(Th)+1(Tu)]=6 ,

No. of Lecture hours: 75, No. of Tutorial contact hours: 15

[Semester-VI]
2. **Financial Institutions, Markets, Instruments and Financial Innovations** 17 lecture hours
   - Role of financial markets and institutions; problem of asymmetric information – adverse selection and moral hazard; financial crises.
   - Money and capital markets: organization, structure and reforms in India; role of financial derivatives and other innovations.
   - Why banks are special Institutions? How banks act as a leveraging mechanism?

3. **Financial Markets and Interest Rates Behaviour** 18 lecture hours
   - Determination; sources of interest rate differentials;
   - Theories of term structure of interest rates; interest rates in India.

4. **Banking System** 20 lecture hours
   - Balance sheet and portfolio management;
   - Multiple Deposit Creation,
   - Determinants of the Money Supply.
   - Indian banking system- Changing role and structure- banking sector reforms

5. **Central Banking and Monetary Policy** 15 lecture hours
   - Functions, balance sheet; goals, targets, indicators and instruments of monetary control;
   - Monetary management in an open economy; current monetary policy of India.

**ECO-A-DSE-6-A(2)-TU**

**Tutorial Contact hours: 15**

**Text**

**References**

**Discipline Specific Elective-A(2):**

**ECO-A-DSE-6-A(2)-TH-P**

**Issues in Indian Economy [IIE]**

*Total Marks: 100*

*Theory (Th) 50 + Practical (P) 30 + Internal Assessment 10+Attendance: 10*

*Total Credits: [4(Th)+2(P)]=6 ,
No. of Lecture hours: 60, No. of Practical hours: 30/No. of Practical classes: 30*

[Semester-VI]

**ECO-A-DSE-6-A(2)-TH**

1. **Growth and structural changes** 4 lecture hours
   - Trends in national income and per capita income- Analysis with official statistics [2 lecture hours]
   - Structural Composition of national income and employment with NAS and NSSO data [2 lecture hours]

2. **Macroeconomic Policies and Their Impact** 15 lecture hours
   - Fiscal Policy [3 lecture hours]
   - Trade and investment policy [3 lecture hours]
   - Financial and monetary policies [3 lecture hours]
   - Inflation and measures to control inflation [3 lecture hours]
   - Labour laws and regulation [3 lecture hours]

3. **Policies and Performance in Agriculture** 15 lecture hours
   - Growth; productivity; agrarian structure and technology, capital formation [3 lecture hours]
   - Agricultural marketing [3 lecture hours]
   - Food security and food policy [3 lecture hours]
   - Pricing and procurement [3 lecture hours]
   - WTO and Indian agriculture [3 lecture hours]

4. **Policies and Performance in Industry** 12 lecture hours
   - Output, employment and productivity growth [2 lecture hours]
   - Regional variation of industrial growth [2 lecture hours]
   - Small scale industries- problems and prospects [2 lecture hours]
- Public sector; competition policy [2 lecture hours]
- Foreign direct investment in industry [2 lecture hours]
- Economic reforms and industry [2 lecture hours]

5. Trends and Performance in Services [14 lecture hours]
   - Formal and informal sectors [5 lecture hours]
   - Banking and insurance [5 lecture hours]
   - Trade in services [4 lecture hours]

ECO-A-DSE-6-A(2)-P
Total Practical Hours: 60, Number of Practical classes: 30

Students will have to take help of primary or secondary data and will have to make statistical/econometric analysis of any problem on Indian economy as mentioned in this course (i.e. the topic will not be outside the course) on the basis of the use of statistical softwares like SPSS/STATA/R/E-VIEWS. A project report is to be prepared by the candidate analysing the results obtained from the use of any one of the above-mentioned statistical softwares. Though there is a project report, basically it is a computer laboratory based practical on the basis of which the project report will be constructed. Use of computer laboratory is essential for running the above-mentioned statistical softwares and also for handling the data. In this sense the project work is to be interpreted as a Practical (it is not a separate project paper). The project should be supervised by a full time teacher of the subject belonging to the institution. All total 60 hours (30 Practical classes) have been allotted for the practical part of the course. The norm of the examination will be similar to that of a practical examination. To be more specific, the practical examination of the project is to be conducted jointly by the supervisor and an external examiner on the basis of the content of the project report, use of the above-mentioned statistical softwares in the computer laboratory (in the form of running the regressions used in the project or by determining the various measures of descriptive statistics used in the project in front of the examiners just like that of a practical examination) and also on the basis of a viva-voce based on the candidate's knowledge about the data set (especially data sources in case of secondary data) along with economic interpretation of the regression results. In case the student uses primary data it should be related to one of the topics covered in the course and why primary data is used instead of secondary data is to be justified by the student. In case of use of primary data students should have good knowledge about the sampling procedure used in collecting data. On the day of the practical examination students should carry with them soft copy of the data set used in the project.
References


- Pulapre Balakrishnan, Ramesh Golait and Pankaj Kumar, 2008, —Agricultural Growth in India Since 1991, RBI DEAP Study no. 27.


- India Development Reports, IGIDR
Discipline Specific Elective- B(2) :
ECO-A-DSE-6-B(2)-TH-TU

Environmental Economics [EE]

Total Marks: 100 [Theory(Th) 65 + Tutorial(Tu) 15 + Internal Assessment 10+Attendance: 10]
Total Credits: [5(Th)+1(Tu)]=6 ,
No. of Lecture hours: 75, No. of Tutorial contact hours: 15
[Semester- VI]

ECO-A-DSE-6-B(2)-TH

Unit 1. Introduction 7 lecture hours
1.1 What is environmental economics;
1.2 Review of microeconomics and welfare economics.
1.3 Interlinkages between the economy and environment

Reference for unit 1:

Unit 2. Efficiency and Market Failure 18 lecture hours
2.1 Pareto optimality and market failure in the presence of externalities
2.2 Property rights and the Coase theorem
2.3 Public goods/ bads and market failure

Reference for unit 2:
Kolstad C, Environmental Economics, OUP

Unit 3. The Design and Implementation of Environmental Policy 20 lecture hours
3.1 Pigouvian Fees – Single Polluter, Multiple Polluters, Fees vs Subsidies
3.2 Regulating Pollution : Command and Control, Economic Incentives
3.3 The Basic Theory of Tradeable Pollution Permits

Reference for unit 3:
Kolstad C, Environmental Economics, OUP

Unit 4. International Environmental Problems 13 lecture hours
4.1 Transboundary Pollution – Transboundary Pollution as a problem of international externalities
4.2 International Trade and Environment – Pollution Havens
4.3 International Environmental Agreements – Basic idea about Montereal and Kyoto Protocol and Talks on Climate Change
Unit 5. Measuring the values of Environmental Costs and Benefits 17 lecture hours

5.1 Concepts of Willingness to pay (WTP) and Willingness to accept compensation (WTAC), Difference between the two concepts

5.2 Direct and Indirect Methods of Valuation – Contingent valuation, Travel Cost, hedonic Pricing – basic concepts only (no econometric techniques) – when they should be used, what are the advantages and disadvantages of these methods.

Reference for unit 5:

ECO-A-DSE-6-B(2)-TU
Tutorial Contact hours: 15

Discipline Specific Elective –B(2):
ECO-A-DSE-6-B(2)-TH-TU

Issues in Development Economics [IDE]

*Total Marks: 100 [Theory(Th) 65 + Tutorial(Tu) 15 + Internal Assessment 10+Attendance: 10]*

*Total Credits: [5(Th)+1(Tu)]±6 ,

*No. of Lecture hours: 75, No. of Tutorial contact hours: 15*

[ Semester- VI]

ECO-A-DSE-6-B(2)-TH

1. Demography and Development 10 lecture hours
   - Demographic concepts; birth and death rates, age structure, fertility and mortality
   - Demographic transitions during the process of development; gender bias in preferences and outcomes and evidence on unequal treatment within households
   - Connections between income, mortality, fertility choices and human capital accumulation
   - Migration.

2. Land, Labor and Credit Markets 20 lecture hours
   - The distribution of land ownership; land reform and its effects on productivity
   - Contractual relationships between tenants and landlords
   - Land acquisition; nutrition and labor productivity
   - Informational problems and credit contracts
• Microfinance
• Inter-linkages between rural factor markets.

3. **Individuals, Communities and Collective Outcomes** 15 lecture hours
• Individual behavior in social environments
• Multiple social equilibria;
• Governance in organizations and in communities;
• Individual responses to organizational inefficiency.

4. **Environment and Sustainable Development** 15 lecture hours
• Defining sustainability for renewable resources
• A brief history of environmental change;
• Common-pool resources;
• Environmental externalities and state regulation of the environment;
• Market based instruments, economic activity and climate change.

5. **Globalization** 15 lecture hours
• Globalization in historical perspective
• the economics and politics of multilateral agreements;
• Trade, production patterns and world inequality
• Financial instability in a globalized world.
• India in the context of global economy

**ECO-A-DSE-6-B(2)-TU**

**Tutorial contact hours: 15**

**Text**

**References**
• Albert O. Hirschman, Exit, Voice and Loyalty: Responses to Decline in Firms, Organizations and States, Harvard University Press, 1970.


Preamble

- As the subject Economics falls under both BA and BSc two types of structures are proposed for BA/BSc Economics (General). One for BA Economics (General) and the other for BSc Economics (General).

- For any student with Honours in a subject other than Economics (say Sociology (Honours) or Political Science (Honours) or Statistics (Honours)) may opt for Economics as a Generic Elective subject. So provisions are to be kept for Economics Generic Elective for four courses (papers).

- For any BA (General) student with Core subjects other than Economics [say Political Science as Core paper (under General) and History as Core paper (under General)] may opt for Economics as a Generic Elective Course [two Generic Elective courses are to be chosen from any discipline other than the Core. Thus provision should be kept for two courses of any subject other than the Core, say Economics]. This should be treated as Generic Elective Course for BA (General) student.

- Regarding skill-enhancement course there are two groups. Group A for odd semesters like semester III and semester V and Group B for even semesters like semester IV and semester VI. As part of skill-enhancement Course under BA/BSc Economics (General) provision should be kept for two skill-enhancement courses under each of the two groups (so all total provision is to be kept for 4 courses).

- The conversion of credit to lecture hours is same as that of the Honours course. For five credits of lecture hours (theory) per course there will be five hours of teaching per week so that for fifteen weeks all total there will be 75 lecture hours for theory classes per semester. For 1 credit tutorial classes (each of one hour) there will be all total 15 hours of tutorial classes for 15 weeks (one can refer to it as tutorial contact hours). We can club “lecture hours” and “tutorial contact hours” and can refer to it as teaching hours. Thus for a 5 credit (Theory)+1 credit(Tutorial)= 6 credit course for 15 weeks we have $75+15=90$ teaching hours. Similarly for a 2 credit course (only theory) the teaching hours or lecture hours all total is 30. Within each course the total marks of 100 has been subdivided in the following manner. For 90 hours of teaching (Theory plus tutorial) we have 80 marks. The remaining part (20 marks) has been divided into two equal parts: 10 marks is reserved for continuous internal assessment (CIA) and the remaining 10 marks for...
attendance. Out of 80 for written examination 65 marks has been allotted and the remaining 15 marks has been allotted for tutorial examination.

- We first focus on BSc Economics (General). To illustrate the structure we start from a hypothetical example. Suppose the three general subjects opted by a student for BSc (General) are Economics, Mathematics and Statistics. Then the syllabus for Economics should be treated as the syllabus for BSc Economics (General) and it would be based on the following structure.

**Table 3: Structure for BSc (General) Course covering three subjects**

<table>
<thead>
<tr>
<th>Type of Course</th>
<th>Total Number of Courses</th>
<th>Number of Courses for Economics out of total number of Courses</th>
<th>Credit for each course</th>
<th>Total Credit</th>
<th>Total Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Course (CC)</td>
<td>12</td>
<td>4</td>
<td>5(Th) +1 (Tu)=6 for each course or 4(Th) +2(P) =6 for each course</td>
<td>72</td>
<td>1200</td>
</tr>
<tr>
<td>Discipline Specific Elective (DSE)</td>
<td>6</td>
<td>2</td>
<td>5(Th) +1 (Tu)=6 for each course or 4(Th) +2(P) =6 for each course</td>
<td>36</td>
<td>600</td>
</tr>
<tr>
<td>Ability Enhancement Compulsory course (AECC)</td>
<td>2</td>
<td>Nil</td>
<td>2 (Th) for each course</td>
<td>4</td>
<td>200</td>
</tr>
<tr>
<td>Skill Enhancement Elective Course (SEC)</td>
<td>4</td>
<td>2</td>
<td>2 (Th) for each course</td>
<td>8</td>
<td>400</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>24</strong></td>
<td><strong>8</strong></td>
<td></td>
<td><strong>120</strong></td>
<td><strong>2400</strong></td>
</tr>
</tbody>
</table>

- In case of BSc (General) for each CC we have 100 marks, for each DSE we have 100 marks, for each AECC we have 100 marks, for each SEC we have 100 marks so that all total we have 2400 marks for BSc (General) stream (as shown in Table 3). For each semester we have 400 marks as shown in table 3. In the above table Th stands for Theory, Tu stands for tutorial and P stands for Practical.

- We next focus on BA Economics (General). To illustrate the structure we start from a hypothetical example. Suppose the two general subjects opted by a student for BA (General) are Political Science and Economics. Then the syllabus for Economics should be treated as the syllabus for BA Economics (General) and it would be based on the structure shown in table 4.

- In Language Core Course (LCC) as per decision of the University there will 2 English Courses and 2 MIL Courses.

- Ability Enhancement Courses can be conducted along with the Honours students in 1st and 2nd semesters.
Table 4: Structure for BA (General) Course covering two subjects (with two different subjects under Generic Elective)

<table>
<thead>
<tr>
<th>Type of Course</th>
<th>Total Number of Courses</th>
<th>Number of Courses for Economics out of total number of Courses</th>
<th>Credit for each course</th>
<th>Total Credit</th>
<th>Total Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Course (CC)</td>
<td>8</td>
<td>4</td>
<td>5(Th) +1 (Tu)=6 for each course</td>
<td>Total credit for 8 courses = 48</td>
<td>8x100 =800</td>
</tr>
<tr>
<td>9. Language Core Course (LCC)</td>
<td>4</td>
<td>Nil</td>
<td>5(Th) +1 (Tu)=6 for each course</td>
<td>Total credit for 4 courses = 24</td>
<td>4x100 =400</td>
</tr>
<tr>
<td>10. Generic Elective (GE) [From any other subject other than Core]</td>
<td>2</td>
<td>2 GE Economics (provided none of the two Core general subjects is Economics)</td>
<td>5(Th) +1 (Tu)=6 for each course</td>
<td>Total credit for 2 courses = 12</td>
<td>2x100 =200</td>
</tr>
<tr>
<td>Discipline Specific Elective (DSE)</td>
<td>4</td>
<td>2 can be offered from Economics from each of the two groups A and B: Candidate will have to select one from each of the two groups</td>
<td>5(Th) +1 (Tu)=6 for each course</td>
<td>Total credit for 4 courses = 24</td>
<td>4x100 =400</td>
</tr>
<tr>
<td>Ability Enhancement Compulsory course (AECC)</td>
<td>2</td>
<td>Nil</td>
<td>2 (Th) for each course</td>
<td>Total credit for 2 courses = 4</td>
<td>2x100 =200</td>
</tr>
<tr>
<td>Skill Enhancement Elective Course (SEC)</td>
<td>4</td>
<td>2 can be offered from Economics from each of the two groups A and B:</td>
<td>2 (Th) for each course</td>
<td>Total credit for 4 courses = 8</td>
<td>4x100 =400</td>
</tr>
<tr>
<td>Total</td>
<td>24</td>
<td>8 (without considering GE courses) + 2 GE Courses (if the general Core subjects are other than Economics)</td>
<td>120</td>
<td>2400</td>
<td></td>
</tr>
</tbody>
</table>

- We now consider semester-wise break-up of BSc (General) and BA (General) Courses:
Table 5: Semester-wise Break-up of BSc (General) Course covering three subjects

<table>
<thead>
<tr>
<th>Semester</th>
<th>Types of Courses [Course codes are in bold within brackets]</th>
<th>Economics Course</th>
<th>Total Credit for all Courses for each semester</th>
<th>Total Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>3 CC(CC-1), 1AECC(AECC-1)</td>
<td>1 CC</td>
<td>20</td>
<td>400</td>
</tr>
<tr>
<td>II</td>
<td>3CC(CC-2), 1AECC(AECC-2)</td>
<td>1CC</td>
<td>20</td>
<td>400</td>
</tr>
<tr>
<td>III</td>
<td>3CC(CC-3), 1 SEC(SEC-A(1))</td>
<td>1CC plus 1 SEC (if any candidate considers SEC-A(1) as Economics)</td>
<td>20</td>
<td>400</td>
</tr>
<tr>
<td>IV</td>
<td>3CC(CC-4), 1 SEC(SEC-B(1))</td>
<td>1CC plus 1 SEC (if any candidate considers SEC-B(1) as Economics)</td>
<td>20</td>
<td>400</td>
</tr>
<tr>
<td>V</td>
<td>3DSE[ DSE-A (1A+2A+3A), 1SEC (SEC-A(2))]</td>
<td>1DSE plus 1 SEC (if any candidate considers SEC-A(2) as Economics)</td>
<td>20</td>
<td>400</td>
</tr>
<tr>
<td>VI</td>
<td>3DSE[ DSE-B (1B+2B+3B), 1 SEC (SEC-B(2))]</td>
<td>1DSE plus 1 SEC (if any candidate considers SEC-B(2) as Economics)</td>
<td>20</td>
<td>400</td>
</tr>
<tr>
<td>Total</td>
<td>24 Courses</td>
<td>4 CC +2 DSE under DSE A (candidate will select one) + 2 DSE under DSE B (candidate will select one) + 2 SEC under SEC A (candidate will select one) + 2 SEC under SEC B (candidate will select one)</td>
<td>120</td>
<td>2400</td>
</tr>
</tbody>
</table>
### Table 6: Semester-wise Break-up of BA (General) Course covering two subjects

<table>
<thead>
<tr>
<th>Semester</th>
<th>Types of Courses [Course codes are in bold within brackets]</th>
<th>Economics Course</th>
<th>Total Credit for all Courses for each semester</th>
<th>Total Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>2 CC (CC-1), 1 GE (GE-1), 1 AECC (AECC-1)</td>
<td>1 CC plus 1 GE if the core is other than Economics</td>
<td>20</td>
<td>400</td>
</tr>
<tr>
<td>II</td>
<td>2 CC (CC-2), 1 GE (GE-2), 1 AECC (AECC-2)</td>
<td>1 CC plus 1 GE if the core is other than Economics</td>
<td>20</td>
<td>400</td>
</tr>
<tr>
<td>III</td>
<td>2 CC (CC-3), 1 LCC (L1(1)), 1 SEC (SEC-A(1))</td>
<td>1 CC plus 1 SEC if any candidate considers SEC-A(1) as Economics</td>
<td>20</td>
<td>400</td>
</tr>
<tr>
<td>IV</td>
<td>2 CC (CC-4), 1 LCC (L2(1)), 1 SEC (SEC-B(1))</td>
<td>1 CC plus 1 SEC if any candidate considers SEC-B(1) as Economics</td>
<td>20</td>
<td>400</td>
</tr>
<tr>
<td>V</td>
<td>1 LCC (L1(2)), 2 DSE [DSE-A (1A+2A), 1 SEC (SEC-A(2))]</td>
<td>1 DSE plus 1 SEC if any candidate considers SEC-A(2) as Economics</td>
<td>20</td>
<td>400</td>
</tr>
<tr>
<td>VI</td>
<td>1 LCC(L1(2)), 2 DSE [DSE-B (1B+2B), 1 SEC (SEC-B(2))]</td>
<td>1 DSE plus 1 SEC if any candidate considers SEC-B(2) as Economics</td>
<td>20</td>
<td>400</td>
</tr>
<tr>
<td>Total</td>
<td>24 Courses</td>
<td>4 CC +2 DSE under DSE A (candidate will select one) + 2 DSE under DSE B (candidate will select one) + 2 SEC under SEC A (candidate will select one) + 2 SEC under SEC B (candidate will select one) + 2 GE (in case if the Core Course is other than Economics–the candidate will select one)</td>
<td>120</td>
<td>2400</td>
</tr>
</tbody>
</table>

- AECC-1 refers to Communicative English/MIL. AECC-2 refers to Environmental Studies
- LCC: L1 – English Courses; L2 - MIL courses. Two courses each
- SEC - Two courses from two subjects
- DSE- Two courses from two subjects in case of BA (General). Two Courses from three subjects in case of BSc (General). [One course from each subject under each semester].
- In case of BA (General) for each CC we have 100 marks, for each LCC we have 100 marks, for each GE we have 100 marks, for each DSE we have 100 marks, for each AECC we have 100 marks and for each SEC we have 100 marks (as shown in table 4) so that all total we
have 2400 marks for BA (General) stream. For each semester we have 400 marks as shown in table 6.

- If a candidate selects one Economics paper under group-A in case of SEC then the candidate can opt for 3rd or 5th semester. If a candidate selects one Economics paper under group-B in case of SEC then the candidate can opt for 4th or 6th semester. These are shown in terms of tables 5 and 6. [See the explanations regarding DSE and SEC after table 10]

- Economics as Generic Elective can be offered for students having Honours in any subject other than Economics. The semester break-up of the course is as follows

Table 7: Semester-wise break-up of Generic Elective for students having Honours in subject other than Economics

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Generic Elective Course I (GE-I)</td>
</tr>
<tr>
<td>II</td>
<td>Generic Elective Course II (GE-II)</td>
</tr>
<tr>
<td>III</td>
<td>Generic Elective Course III (GE-III)</td>
</tr>
<tr>
<td>IV</td>
<td>Generic Elective Course IV (GE-IV)</td>
</tr>
</tbody>
</table>

- The four GE courses for students having Honours in any subject other than Economics can be treated as Core courses (CC) in first four semesters for students under BA/BSc General Courses.

- We have thus the following classification of GE and CC:

Table 8: Semester-wise distribution of CC and GE

<table>
<thead>
<tr>
<th>Semester</th>
<th>Name of the Course</th>
<th>Core Course (CC) for BA/BSc General students</th>
<th>GE Course for students who have Honours in any subject other than Economics</th>
<th>GE (Economics) Course for BA (General) students who have Core papers other than Economics</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Introductory Microeconomics</td>
<td>Core Course 1(Econ)-CC-1 (ECO-G-CC-1-1-TH-TU)</td>
<td>Generic Elective Course I (ECO-GE-1-1-TH-TU)</td>
<td>Generic Elective Course I (ECO-G-GE-1-1-TH-TU)</td>
</tr>
<tr>
<td>III</td>
<td>Issues in Economic Development and India</td>
<td>Core Course 3(Econ)-CC-3 (ECO-G-CC-3-3-TH-TU)</td>
<td>Generic Elective Course III (ECO-GE-3-3-TH-TU)</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>IV</td>
<td>Indian Economic Policies</td>
<td>Core Course 4(Econ)-CC-4 (ECO-G-CC-4-4-TH-TU)</td>
<td>Generic Elective Course IV (ECO-GE-4-4-TH-TU)</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

- In table 8 the last column implies the two Generic Elective Courses for BA (General) students that will be offered to students who have Core Courses other than Economics. In such case the student may opt for the two Courses in Economics in the First Semester and in the Second Semester (it matches with the two Core Courses in Economics for the first two semesters). The student may take two such courses from Economics in the first and second semesters.
provided his/her Core papers in BA (General) are other than Economics. No separate option has been provided for the students in choosing the courses. They will have to select from the Core papers of Economics (General) Courses provided in the First and Second Semesters.

- For the two Discipline Specific Elective (DSE) courses we suggest the following:

| Table 9 : Options for two DSE (Economics) Courses –Group A and Group-B BA (General) and BSc (General) |
|---------------------------|---------------------|
| Name of the Courses under DSE-A | Name of the Courses under DSE-B |
| [Candidate will have to select only one] | [Candidate will have to select only one] |
| [Relevant for 5th Semester] | [Relevant for 6th Semester] |
| Money and Banking (MB) | Public Finance (PF) |
| ECO-G-DSE-5-1A/2A-TH-TU | ECO-G-DSE-6-1B/2B-TH-TU |
| Sustainable Development (SD) | Economic History of India (1857-1947) (EHI) |
| ECO-G-DSE-5-1A/2A-TH-TU | ECO-G-DSE-6-1B/2B-TH-TU |

| Table 10 : Options for two SEC (Economics) Courses –Group A and Group-B: BA (General) and BSc (General) |
|---------------------------|---------------------|
| Name of the Course under SEC-A | Name of the Course for SEC-B |
| [Candidate will have to select only one] | [Candidate will have to select only one] |
| [Relevant for 3rd or 5th Semesters] | [Relevant for 4th or 6th Semesters] |
| Introductory Methods of Field Survey (IMFS) | Economic Data Analysis and Report Writing (EDARW) |
| ECO-G-SEC-3-1A-TH/ECO-G-SEC-5-2A-TH | ECO-G-SEC-4-1B-TH/ECO-G-SEC-6-2B-TH |
| Elementary Rural Development (ERD) | Entrepreneurship and Development (ED) |
| ECO-G-SEC-3-1A-TH/ECO-G-SEC-5-2A-TH | ECO-G-SEC-4-1B-TH/ECO-G-SEC-6-2B-TH |

- In case of semester 5 for DSE A at least two options from each discipline are to be given. Similarly in case of semester 6 for DSE-B at least two options from each discipline are to be given. In case of Economics we have given exactly two options for each group A and B. In case of BSc (General) a candidate will have to select one option from three different disciplines from each group (i.e. DSE-A ad DSE-B). These are referred to as courses DSE-A: 1A, 2A and 3A and DSE-B: 1B, 2B and 3B. [Here 1,2 and 3 are disciplines like Economics, Mathematics, Statistics whereas A and B are the groups]

- The structure is similar in case of BA (General) except that here a candidate will have to select one option from two different disciplines (instead of three different disciplines). These are referred to as courses DSE-A: 1A and 2A (for semester 5) and DSE-B : 1B and 2B (for semester 6). [Here again 1 and 2 are disciplines like Economics and History whereas A and B are the groups]

- In Table 10 we have specified the options under Group A and Group B. As an example we can say that in case of BA (General) suppose the disciplines as Core Courses are History and Economics. In this case two options are given for Economics under Skill Enhancement
Course (SEC) in the form of SEC-A and SEC-B. In case of SEC-A, suppose two options from Economics and two from History are offered. Similarly, two options from Economics and two options from History are also offered under SEC-B. If a candidate opts for History from SEC-A in semester 3 then he/she must opt for Economics (any one of the two Economics options) from SEC-A in case of semester-5. Similarly if a candidate opts for Economics from SEC-B (any one of the two Economics options) in semester 4 then he/she must opt for History from SEC-B in semester 6.

- The SEC-A courses will be offered twice. The same courses will be taught twice: once in the 3rd Semester and again in the 5th Semester. Similarly SEC-B courses will be offered twice. The same courses will be taught twice: once in the 4th Semester and again in the 6th Semester. Examinations will be conducted both for 3rd and 5th semester students for the same Economics courses under SEC-A. Similarly, examinations will be conducted both for 4th and 6th semester students for the same Economics courses under SEC-B.

- Based on the above-mentioned structure we have framed the syllabus in the following manner.

  **Core Course 1 (CC 1) BA/BSc (General) / Generic Elective Course I (GE -1) for BA/BSc Honours students [other than students having Economics (Honours)]/BA (General) Generic Elective Course I (GE-I) for students not having Economics as Core Course**

  **Name of the Course: Introductory Microeconomics**

  **Total Marks: 100 [Theory(Th) 65 + Tutorial(Tu) 15 + Internal Assessment 10+Attendance: 10]**

  **Total Credits: [5(Th)+1(Tu)]=6 ,**

  **No. of Lecture hours (Theory): 75, No. of Tutorial contact hours: 15**

  **[For Semester-I]**


  **ECO-G-CC-1-1-TH/ ECO--GE-1-1-TH/ECO-G-GE-1-1-TH**

  **1. Exploring the subject matter of Economics 5 lecture hours**

  Why study economics? Scope and method of economics; the economic problem: scarcity and choice; the question of what to produce, how to produce and how to distribute output; science of economics; the basic competitive model; prices, property rights and profits; incentives and information; rationing; opportunity sets; economic systems; reading and working with graphs.

  **2. Supply and Demand: How Markets Work, Markets and Welfare 16 lecture hours**

  Markets and competition; determinants of individual demand/supply; demand/supply schedule and demand/supply curve; law of demand and law of supply; market versus individual
demand/supply; shifts in the demand/supply curve, demand and supply together; how prices allocate resources; elasticity of demand - own price, cross price and income elasticity of demand-total revenue, average revenue, marginal revenue and price elasticity of demand; elasticity and its application; controls on prices; taxes and the costs of taxation; consumer surplus; producer surplus and the efficiency of the markets.

3. **The Households** 18 lecture hours
   - Utility maximization-the cardinal approach. Total utility and marginal utility-law of diminishing marginal utility-relation between law of demand and law of diminishing marginal utility
   - Utility maximization-the ordinal approach. Consumption decision and the budget constraint, consumption and income/price changes, description of preferences (representing preferences with indifference curves); properties of indifference curves; consumer's optimum choice; the price consumption curve and the income consumption curve; derivation of the demand curve from price consumption curve; income and substitution effects.

4. **The Firm and Perfect Market Structure** 18 lecture hours
   - Production function of a firm; total product, average product and marginal product; concept of isoquant; returns to scale; behaviour of profit maximizing firms and the production process; the cost function, short run costs and output decisions; costs and output in the long run.
   - Features of a perfectly competitive market. Short run equilibrium under perfect competition. Supply curve of a firm. Long run equilibrium under perfect competition.

5. **Imperfect Market Structure** 8 lecture hours
   Monopoly equilibrium- differences with perfect competition. Basic ideas of price-discriminating monopolist.

6. **Input Markets** 10 lecture hours
   The labour market - basic concepts - derived demand, productivity of an input; marginal productivity of labour, marginal revenue product); the land market- concepts of rent and quasi rent.

**ECO-G-CC-1-1-TU/ ECO--GE-1-1-TU /ECO-G-GE-1-1-TU**

**Tutorial Contact Hours: 15**

**Text**

**Reference Books**
Core Course 2 (CC 2) BA/BSc (General) / Generic Elective Course II (GE -II) for BA/BSc Honours students [other than students having Economics (Honours)]/ BA (General) Generic Elective Course II (GE-II) for students not having Economics as Core Course

Name of the Course: Introductory Macroeconomics

Total Marks: 100 [Theory(Th) 65 + Tutorial(Tu) 15 + Internal Assessment 10+Attendance: 10]
Total Credits: [5(Th)+1(Tu)]=6
No. of Lecture hours (Theory): 75, No. of Tutorial contact hours: 15
[For Semester-II]


1. Introduction to Macroeconomics and National Income Accounting 14 lecture hours
   Basic issues of macroeconomics; measurement of gross domestic product; distinction of gross domestic product with gross national product; net domestic product and net national product; net domestic product at market price and at factor cost-the concept of national income. Measurement of national income- income method and the expenditure method- circular flow of income; the concept of value added and the value added method of measuring national income; real versus nominal GDP.

2. The Simple Keynesian Model in a Closed Economy 14 lecture hours
   The Keynesian consumption function and the Keynesian saving function. The Simple Keynesian Model of Income determination- the concept of effective demand-the Simple Keynesian Multiplier-the role of the government in Simple Keynesian Model

3. The Classical System 11 lecture hours
   Basic ideas of classical system-Say’s Law and Quantity Theory of Money- classical theory of income and employment determination.

4. Money Supply and Money Demand 11 lecture hours
   • Supply of money; measures of money supply; high powered money, credit creation by commercial banks, tools of monetary policy.
   • Demand for money-demand for money in the classical system and in the Keynesian system-the liquidity preference schedule.

5. Inflation 13 lecture hours
   Demand pull and cost push inflation; inflation and its social costs; hyperinflation; trade off between inflation and unemployment –basic ideas of the Phillips Curve; anti-inflationary
monetary and fiscal policies.

6. The External Sector 12 lecture hours
   • Basis of trade: concepts of absolute advantage and comparative advantage; arguments for free trade; arguments for protection
   • Balance of Payments-accounting and equilibrium; disequilibrium in balance of payments and devaluation-the role of the Marshall-Lerner condition

Tutorial Contact Hours: 15

Text
Sikdar Soumyen, Principles of Macroeconomics, Oxford University Press

Reference Books

Core Course 3 (CC 3) BA/BSc (General) / Generic Elective Course III (GE-III) for BA/BSc Honours students [other than students having Economics (Honours)]:

Name of the Course: Issues in Economic Development and India
Total Marks: 100 [Theory(Th) 65 + Tutorial(Tu) 15 + Internal Assessment 10+Attendance: 10]
Total Credits: [5(Th)+1(Tu)]=6 ,
No. of Lecture hours (Theory): 75, No. of Tutorial contact hours: 15
[For Semester-III]
ECO-G-CC-3-3-TH-TU / ECO--GE-3-3-TH-TU

ECO-G-CC-3-3-TH / ECO--GE-3-3-TH

1. Meaning of Economic Development 25 lecture hours
   Meaning of economic development; growth vs. development; concept of human development and its measurement, population and human development; education and health sectors in India; features and causes of underdevelopment of the Indian economy; growth and development of Indian economy under different policy regimes.

2. Poverty, Inequality and Development 20 lecture hours
   Basic issues of poverty and inequality; basic ideas about measurement of poverty and inequality- the poverty line; trends and policies to eradicate poverty and income inequality in India
3. Development of the Dual Economy and Development Strategies 15 lecture hours
   - Surplus labour and disguised unemployment-basic concepts; the Lewis model of economic development with unlimited supply of labour.
   - Balanced and unbalanced growth as development strategies

4. International Organizations and Economic Development 15 lecture hours
   - Functions of IMF and World Bank and their roles in economic development
   - The World Trade Organization (WTO) and its functions. India and the WTO

**ECO-G-CC-3-3-TU / ECO--GE-3-3-TU**

**Tutorial Contact Hours: 15**

**Text**
   - Misra D. and Puri K. Indian Economy, Himalaya Publishing House

**References**
   - Thirlwall, Growth and Development, 5th Edition
   - Datt and Sundharam (Revised by G. Datt and A. Mahajan) , Indian Economy, 70th edition, S. Chand
   - Mukherjee, Debes : Development Policies, Problems and Institutions, New Central Book Agency, Kolkata.

**Core Course 4 (CC 4) BA/BSc (General) / Generic Elective Course IV (GE-IV) for BA/BSc Honours students [other than students having Economics (Honours)]:**

**Name of the Course: Indian Economic Policies**

**Total Marks: 100 [Theory(Th) 65 + Tutorial(Tu) 15 + Internal Assessment 10+Attendance: 10]  
Total Credits: [5(Th)+1(Tu)]=6 ,  
No. of Lecture hours (Theory): 75, No. of Tutorial contact hours: 15  
[For Semester-IV]**

**ECO-G-CC-4-4-TH-TU / ECO--GE-4-4-TH-TU**

**ECO-G-CC-4-4-TH / ECO--GE-4-4-TH**
1. **Macroeconomic Policies and their Impact** 15 lecture hours
   Fiscal Policy; trade and investment policy; financial and monetary policies; labour regulation.

2. **Policies and Performance in Agriculture** 21 lecture hours
   Growth; productivity; agrarian structure and technology; capital formation; trade; pricing and procurement.

3. **Policies and Performance in Industry** 21 lecture hours
   Growth; productivity; diversification; small scale industries; public sector; competition policy; foreign investment

4. **Policies and Performance of Indian Foreign Trade** 18 lecture hours
   India’s foreign trade: change in volume and direction of India’s foreign trade in the post-liberalization period; Balance of Payments position of India in recent years; India’s export and import policies.

---

**ECO-G-CC-4-4-TU / ECO--GE-4-4-TU**

**Tutorial Contact Hours: 15**

**Text**
- Misra D. and Puri K. Indian Economy, Himalaya Publishing House
- Datt and Sundharam (Revised by G.Datt and A. Mahajan), Indian Economy, 70th edition, S. Chand

**References**

**Discipline Specific Elective Course [Economics] (DSE -A) BA/BSc (General)**

**Name of the Course: Money and Banking (MB)**

**Total Marks: 100 [Theory(Th) 65+ Tutorial(Tu) 15 + Internal Assessment 10+Attendance: 10]**

**Total Credits: [5(Th)+1(Tu)]=6 ,**

**No. of Lecture hours (Theory): 75, No. of Tutorial contact hours: 15**

[For Semester-V]

**ECO-G-DSE-5-1A/2A-TH-TU**
25 lecture hours

1. Money Supply and Banking System with reference to India

Definition of money supply in the Indian context (M₁, M₂, M₃ and M₄), Balance sheet of the banking sector and accounting of money supply; balance sheet of the Reserve Bank of India and the accounting interpretation of High powered money; definition of high powered money; the money multiplier theory and balance sheet of commercial banks, sterilization by Central Banks. Indian banking system-changing role and structure; Indian banking sector reforms.

2. Financial Institutions and Financial Markets

- Role of financial markets and institutions in economic development- Indian examples
- Money and capital markets: organization, structure and reforms in India; role of financial derivatives and other innovations.

3. Interest Rates

Determination; sources of interest rate differentials; theories of term structure of interest rates; interest rates in India.

4. Central Banking and Monetary Policy

Instruments of monetary control with special reference to India; concepts of statutory liquidity ratio(SLR), cash reserve ratio(CRR) and repo rate as instruments of monetary control; monetary management in an open economy; current monetary policy of India, demonetization and its impact on the Indian economy.

ECO-G-DSE-5-1A/2A-TU

Tutorial Contact Hours: 15

Texts
- Gupta, S.B.: Monetary Planning in India, Oxford University Press, Delhi.

References
- Rakesh Mohan, Growth with Financial Stability- Central Banking in an Emerging Market,
Oxford University Press, 2011.

- Economic Survey 2016-17, Government of India.

Discipline Specific Elective Course [Economics] (DSE -A) BA/BSc (General)

Name of the Course: Sustainable Development (SD)

Total Marks: 100 [Theory(Th) 65 + Tutorial(Tu) 15 + Internal Assessment 10+Attendance: 10]

Total Credits: [5(Th)+1(Tu)]=6 ,

No. of Lecture hours (Theory): 75, No. of Tutorial contact hours: 15

[For Semester-V]

ECO-G-DSE-5-1A/2A-TH-TU

ECO-G-DSE-5-1A/2A-TH

1. The Approach Towards Sustainability-Introductory ideas 15 lecture hours

Key environmental issues and problems, economic way of thinking about these problems, circular flow of environmental pollutants and waste recycling-laws of thermodynamics, renewable and non-renewable resources-the issue of sustainability

2. The meaning of Sustainable Development 25 lecture hours

Different definitions of sustainable development, rules of sustainable development, measures of sustainable development, sustainable management of resources-the role of property rights, stakeholders associated with sustainable management of different types of renewable resources—fishery, forestry and water, the concept of sustainable livelihood in the context of sustainable resource management.

3. Trans-boundary pollution, climate change and sustainable development 15 lecture hours

Implementation of environmental policies in developing countries and international experience; transboundary environmental problems-international meetings, protocols and treaties; economics
of climate change—basic ideas of the carbon credit market—clean development mechanism and international emission trading.

4. Sustainable Resource Management Policies in India 20 lecture hours

Water policy, forestry policy and fishery policy of India. Basic objectives of the policies along with goals and visions.

ECO-G-DSE-5-1A/2A-TU

Tutorial Contact Hours: 15

Texts

References
- IPCC (Intergovernmental Panel on Climate Change), Fifth Assessment Report, 2014.
- National Forest Policy 2016: Ministry of Environment and Forests, Government of India

Discipline Specific Elective Course [Economics] (DSE-B) BA/BSc (General)

Name of the Course: Public Finance (PF)

Total Marks: 100 [Theory(Th) 65 + Tutorial(Tu) 15 + Internal Assessment 10+Attendance: 10]

Total Credits: [5(Th)+1(Tu)] = 6

No. of Lecture hours (Theory): 75, No. of Tutorial contact hours: 15

[For Semester-VI]

ECO-G-DSE-6-1B/2B-TH-TU

ECO-G-DSE-6-1B/2B-TH

1. Theory of Public Finance 40 lecture hours

- Overview of Fiscal Functions, Tools of Normative Analysis, Pareto Efficiency, Equity and
the Social Welfare.

- Market Failure, Public Good and Externalities.
- Elementary Theories of Product and Factor Taxation (Excess Burden and Incidence).

2. **Issues from Indian Public Finance** 35 lecture hours

- Current Issues of India’s Tax System.
- Working of Monetary and Fiscal Policies.
- Analysis of Budget and Deficits
- Fiscal Federalism in India
- State and Local Finances

**ECO-G-DSE-6-1B/2B-TU**

**Tutorial Contact Hours: 15**

**Text**

- Ganguly Subrata, Public Finance: A Normative Approach, Nababharat Publishers

**References**

- State Finances: A Study of Budgets, Reserve Bank of India (latest).

**Discipline Specific Elective Course [Economics] (DSE-B) BA/BSc (General)**

**Name of the Course: Economic History of India (1857-1947) (EHI)**

**Total Marks: 100 [Theory(Th) 65 + Tutorial(Tu) 15 + Internal Assessment 10 + Attendance: 10]**

**Total Credits: [5(Th)+1(Tu)]=6 ,**

**No. of Lecture hours (Theory): 75, No. of Tutorial contact hours: 15**

[For Semester-VI]

**ECO-G-DSE-6-1B/2B-TH-TU**

- **Colonial India: Background and Introduction** 10 lecture hours
  Overview of the colonial economy

- **Macro Trends** 13 lecture hours
National Income; population; occupational structure.

- **Agriculture**
  17 lecture hours
  Agrarian structure and land relations; agricultural markets and institutions – credit, commerce and technology; trends in performance and productivity; famines.

- **Railways and Industry**
  20 lecture hours
  Railways; the de-industrialisation debate; evolution of entrepreneurial and industrial structure; nature of industrialisation in the interwar period; constraints to industrial breakthrough; labor relations.

- **Economy and State in the Imperial Context**
  15 lecture hours
  The imperial priorities and the Indian economy; drain of wealth; international trade, capital flows and the colonial economy – changes and continuities; government and fiscal policy.

**ECO-G-DSE-6-1B/2B-TU**

**Tutorial Contact Hours: 15**

**Text**

- Bhattacharya, Dhiren, A Concise History of Indian Economy, Progressive Publishers, 1972

**References**

- Dharma Kumar, the Fiscal System, CEHI, Chapter 12.
- Basudev Chatterjee, Trade, Tariffs and Empire, OUP 1992, Epilogue.
- Daniel Thorner, Agrarian Prospect in India, 1977

**Skill Enhancement Course [Economics] -A Group (SEC-A) BA/BSc (General)**

**Name of the Course: Introductory Methods of Field Survey (IMFS)**

**Total Marks: 100 [Theory(Th) 80 + Internal Assessment 10+Attendance: 10]**

**Total Credits: 2,**

**No. of Lecture hours: 30**

ECO-G-SEC-3-1A-TH/ECO-G-SEC-5-2A-TH

[For Semester III or Semester V]

1. **Basic ideas of economic data**
   8 lecture hours

- Types of data-cross section, time series , pooled data, panel data etc.
- Nature of field survey data – types of cross section data
- Advantages and disadvantages of field survey data
• Importance of field survey data for economic analysis
• Role of pilot survey

2. Methodologies of collection of data 15 lecture hours
• Complete enumeration vs. sample survey
• Sampling techniques: basic ideas of simple random sampling (with and without replacement), stratified random sampling, circular sampling, sampling proportional to size (mathematical proof/mathematical demonstration not required for any type of sampling)
• Practical methods of drawing random sample using random number tables.
• Prerequisites for field survey-preparation of blank tables
• Preparation of questionnaire depending on nature of survey-illustrations on the basis of preparation of hypothetical questionnaire

3. Recording of data 7 lecture hours
• How to record data after completion of survey: use of manual methods and recording through the use of computers
• Tabular representation of data collected
• Cross checking of data after tabular representation
• Role of units of measurement

References
• Goon, A. M, Gupta, M. K, and Dasgupta, B. Fundamentals of Statistics (Volumes One and Two), The World Press Private Ltd
• Kapur J.N. and Saxena H.C., Mathematical Statistics, Sultan Chand Publishing

Skill Enhancement Course [Economics] -A Group (SEC-A) BA/BSc (General)
Name of the Course: Elementary Rural Development (ERD)
Total Marks: 100 [Theory(Th) 80 + Internal Assessment 10+Attendance: 10]
Total Credits: 2,
No. of Lecture hours: 30
ECO-G-SEC-3-1A-TH/ECO-G-SEC-5-2A-TH
[For Semester III or Semester V]

1. Basic Issues in Rural Development 12 lecture hours
• Rural Development vs. Agricultural Development
• Decentralized Planning and Participatory Development-the role of Panchayats
• Panchayat and Rural Development in West Bengal
• Role of NGOs in Rural Development
2. **Rural Credit and Self Help Groups (SHGs)**

- Constraints of micro-enterprises in rural areas
- The rural non farm sector –credit needs for rural non farm sector.
  - Concept of micro credit and the role of Grameen Bank
- Need for SHG for formation-features of SHG
- SHGs in India

3. **Selected Government Programmes and Rural Development**

- Mahatma Gandhi National Rural Employment Guaranty Act (MGNREGA)
- Mid-day Meal
- Pradhan Mantri Gram Sadak Yojana (PMGSY)

**References**

5. Datt and Sundharam (Revised by G. Datt and A. Mahajan), *Indian Economy*, 70th edition, S. Chand

**Skill Enhancement Course [Economics] -B -Group (SEC-B) BA/BSc (General)**

**Name of the Course:** Economic Data Analysis and Report Writing (EDARW)

*Total Marks: 100 [Theory(Th) 80 + Internal Assessment 10+Attendance: 10]*

*Total Credits: 2,*

*No. of Lecture hours: 30*

**ECO-G-SEC-4-1B-TH/ECO-G-SEC-6-2B-TH**

[For Semester IV or Semester VI]

1. **Tabular and Graphical representation of Statistical Data**

   - Tabular representation of data for analysis
   - Graphical representation of data-use of line diagram, bar chart, divided bar chart, pie chart etc.
   - Frequency distribution table: uses and implications
   - Pictorial descriptions of frequency table: frequency polygon, histogram, ogive etc.
2. Basic Descriptive Statistics and its role in Data Analysis 16 lecture hours

- Measures of Central Tendency-Concept of arithmetic mean, geometric mean and harmonic mean-their uses (explicit mathematical proof of the properties of different types mean are not required). The concept of median and mode-their uses in analyzing economic data. Comparison of mean, median and mode as measures of central tendency.


- Introductory ideas of correlation and regression analysis.

3. Elements of Report writing 8 lecture hours

- Locating the basic issues- theme based literature survey and motivation behind any study- objectives of the study-development of writing skills

- Methodological issues: Use of tables and graphs. Use of various measures of central tendency and dispersion in analyzing the results.

- Insertion of footnotes or end notes.

- Preparation of Bibliography

References


- C.R. Kothari: Research Methodology: Methods and Techniques (second revised edition), New Age India (P) Ltd Publishers.

Skill Enhancement Course [Economics] -B -Group (SEC-B) BA/BSc (General)

Name of the Course: Entrepreneurship and Development (ED)

Total Marks: 100 [Theory(Th) 80 + Internal Assessment 10+Attendance: 10]

Total Credits: 2,

No. of Lecture hours: 30

ECO-G-SEC-4-1B-TH/ECO-G-SEC-6-2B-TH

[For Semester IV or Semester VI]

1. Basic issues of Entrepreneurship and Economic Development 10 lecture hours

- Basic features of Entrepreneurship

- Entrepreneurship and its linkages with economic development
• Growth of entrepreneurship in India—Role of Entrepreneurship in Economic Development.

• Planning Commission’s guidelines for formulating a project report by an entrepreneur
• Problem of Rural entrepreneurship in India

2. Financial resources for new ventures of an entrepreneur 7 lecture hours
• Sources of finance—capital structure.
• Institutional support to enterprises—national small industries board – state small industries development corporation—district industries center—industrial estates-Indian experience

3. Growth strategies in small business 7 lecture hours
• Stages of growth,
• Types of growth strategies-Expansion, Diversification, Joint Venture, Merger and Subcontracting

4. Sickness in Small Business 6 lecture hours
• Concept of industrial sickness
• Symptoms of sickness in small business
• Causes and consequences of sickness in small business

References
• S.S Khanka--- Entrepreneurial Development, S.Chand & Company Ltd
• Bill Bolton and John Thompson ---- Entrepreneurs: Talent, Temperament and Technique, Butterworth and Heinemann.
• .David .H Holt---Entrepreneurship New Venture Creation
• Misra D. and Puri K. Indian Economy, Himalaya Publishing House
• Datt and Sundharam (Revised by G.Datt and A. Mahajan) , Indian Economy, 70th edition, S. Chand