

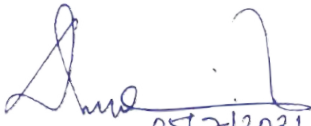
**DEPARTMENT OF ECONOMICS**  
(Under Faculty of Social Sciences)

**DOCTOR OF PHILOSOPHY IN ECONOMICS**  
(Ph.D.- ECONOMICS)

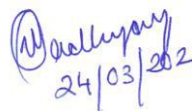
Course Work with effect from Academic Session 2020-21  
(Under Choice Based Credit System)



**RAJIV GANDHI UNIVERSITY**  
Rono Hills, Doimukh – 791112  
(Arunachal Pradesh)  
2021

  
05/7/2021  
संयुक्त कुलसचिव (शैक्षणिक एवं सम्मेलन)  
राजीव गांधी विश्वविद्यालय  
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1

  
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विभाग अध्यक्ष/Head of the Department  
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Itanagar- 791 112, Arunachal Pradesh, India

# DOCTOR OF PHILOSOPHY IN ECONOMICS (Ph.D. - ECONOMICS)

Course Work with effect from Academic Session 2020-21  
(Under Choice Based Credit System)

## BRIEF OUTLINE

The Ph.D. Course (Syllabus) in Economics under Choice Based Credit System (CBCS) has been designed keeping in view the changing scenario of the present education system in the 21<sup>st</sup> Century and as per the University Grants Commission (UGC) (Minimum Standards and Procedure of M.Phil. / Ph.D. Degree) Regulations, 2016 and newly laid Ordinances of Ph.D. (as accepted by the Executive Council) and pending approval of UGC and MoE & publication in Official Gazette of Govt. of India. The content of the syllabus is prepared on the basis of the current demands in research in economics. The Choice-Based Credit System (CBCS) provides an approach in which the Research Scholars shall opt papers from Elective / Open courses as per their choice, learn at their own pace, undergo additional courses and acquire more than the required credits, and adopt an interdisciplinary approach to learning. It offers wide ranging choice for Research Scholars to opt for courses based on their aptitude and their career goals.

## AFFILIATION

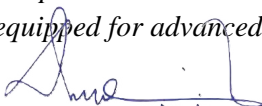
The programme shall be governed by the Department of Economics, Faculty of Social Sciences, Rajiv Gandhi University, Rono Hills, Doimukh – 791112 (Arunachal Pradesh).

## PROGRAM OBJECTIVE

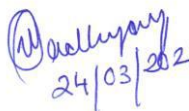
*Acquisition of knowledge acts as the guiding principle up to MA level and M. Phil acts as the bridge between the acquisition of knowledge and its creation. The Ph.D. work is concerned with the creation of new socially useful knowledge. The scholars are expected to show their originality and creativity in their research leading to the writing of a thesis containing original ideas. The course is designed to achieve two objectives: One is to acquaint the scholars with the latest development in economics including econometrics and the other is to equip them with the methodology of social science research in general and of economics in particular. The scholars are also trained in the analysis of quantitative data through computers.*

## PROGRAM OUTCOME

*The Ph. D. work has contributed to the enhancement of the research ability of the scholars, and the Ph.D. thesis are a good source of information especially of Arunachal economy and the Northeastern economy. The students who have got Ph.D. from the Department of Economics have shown their brilliance in their services. As a first step in research into the various complex economic issues, the M. Phil course makes the scholars well-equipped for advanced research in economics leading to Ph.D.*

  
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## OUTLINE OF THE PROGRAM

The syllabi for Ph.D. in Economics program have been drafted as per the UGC guidelines for Learning Outcomes based Curriculum Framework (LOCF) based approach with an aim to equip the Research Scholars with knowledge, skill, values and attitude. The course duration is a Minimum 2 semesters and a maximum 4 semesters. M.Phil. Programme is divided into two parts. First Semester will consist of course work and the rest semesters (Minimum 1 semesters and maximum 3 semesters) out of the course duration for the dissertation.

Part	Year	Semester	Components
Part - I	First Year	Semester I	Course Work
Part – II	First /Second Year	Semester II to IV	Dissertation

**Types of Courses:** Courses in a program shall be of two kinds: Core and Open/ Elective.

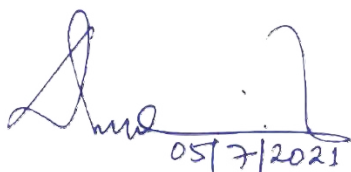
**1. Core Courses:** A core course is a compulsory paper to be studied by all the scholars to complete the requirements of a degree, and based on papers that are unique to the program and hence imperative for study to earn a degree in a given discipline/program.

a. **Research Methodology:** The Department has assigned a minimum of four credits to one or more courses on Research Methodology covering areas such as quantitative methods, computer applications, review of published research in the relevant field, training, field work, etc.

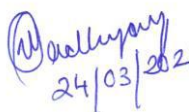
b. **Research and Publication Ethics:** The department shall offer a course paper of two credits on Research and Publication ethics (as per the directives of UGC vide DO no – F.1-1/2018(Journal/CARE) dated December 2019).

- i. 2-Credit course (30 hrs.) – Interdisciplinary Studies: This course has total 6 units/modules focusing on basics of philosophy of science and ethics, research integrity, publication ethics. Hands-on-sessions are designed to identify research misconduct and predatory publications. Indexing and citation databases, open access publications, research metrics (citations, h-index, Impact Factor, etc.) and plagiarism tools will be introduced in this course.
- ii. Class room teaching, guest lectures, group discussions, and practical sessions.
- iii. Continuous assessment will be done through tutorials, assignments, quizzes, and group discussions. Weightage will be given for active participation. Final written and practical examination will be conducted at the end of the course.
- iv. The course comprises of six modules. Each module has 4-5 units.

**2. Elective Courses:** Elective course is a course which can be chosen from a pool of papers from a syllabus provided by a particular department from the main discipline or from a sister/related discipline which supports the main discipline, on mutual consent of the concerned departments.

  
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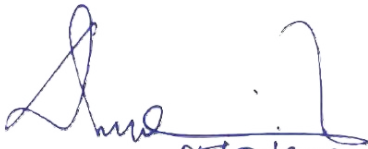
  
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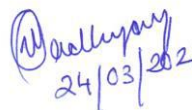
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- a. It is supportive to the discipline of study, providing an expanded scope, enabling an exposure to some other discipline/ domain, and nurturing Research Scholar's proficiency/ skill.
- b. These courses constitute a pool of open elective courses. Discipline Centric elective offered by a department shall serve as open elective for other department(s) of the concerned faculty.
  - i. **Open Paper (2 Credits):** The research scholar has the option to choose the open paper offered by parent department and from other departments. The Department has the choice to prepare the paper with any combinations of Lecture, Tutorial and Practical (2:0:0, or 1:0:1, or 0:0:2).
  - ii. **Elective Paper (4 Credits):** The department will develop more than one elective paper based on different specialisations and specialised fields of research. The Guide / Supervisor will be responsible for the teaching of the specialised paper to their respective scholars. A Scholar has the choice to choose as many as elective paper(s) to accumulate more credits for the course.

### 3. Distribution of Credit:

- a. The credit assigned to the Ph.D. course work consisting of 4 papers shall be of a minimum of 12 credits and a maximum of 16 credits. The course work must include a paper of two credits on Research and Publication Ethics.
- b. The credit assigned for dissertation shall be of 12 credits (8 credits for thesis and 4 credits for viva-voce).
- c. The overall minimum credit requirement for the award of Ph.D. degree shall not be less than 24 credits.
- d. Credits earned by the Scholars: The total credits earned by a Research Scholar at the end of semester upon successfully completing the course are L+T+P. The credit pattern of the course shall be indicated in the format as L:T:P.
- e. Credits and Credit Hours: Each course/paper shall be taught through Classroom Lectures (L), a tutorial component for participatory discussion/problem solving/brief seminar on a topic/ assignments/ self-study or through other appropriate methods that may potentiate the extent of assimilation by the Research Scholar (T), followed by practical/ practice session consists of hands-on experience/ laboratory experiments/ field work/ case studies/ short-term projects etc. (P)
  - i. L: 1 hour per week amounting to 1 credit of learning / semester by a Research Scholar in a paper.
  - ii. T: 1 hour per week amounting to 1 credit of learning per semester by a Research Scholar in a paper.
  - iii. P: 2 hours per week amounting to 1 credit of learning per semester by a Research Scholar in the paper.

  
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विभाग अध्यक्ष/Head of the Department अर्थशास्त्र विभाग Department of Economics सामाजिक विज्ञान संस्थान School of Social Sciences राजीव गांधी विश्वविद्यालय/Rajiv Gandhi University ईटानगर-791112, अरुणाचल प्रदेश, भारत Itanagar- 791 112, Arunachal Pradesh, India
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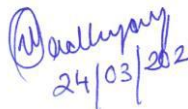
4. **Paper Code:** The paper code will be a combination of 3 letter abbreviation of the name of the department followed by type of courses and the number as indicated in the table. For Example, Paper 701 for Department of Economics will be – ECO-701.

## SCHEME OF EXAMINATIONS AND AWARD OF CREDIT

1. To be eligible for appearing the End Semester Examination, a Research Scholar shall have to attend minimum lectures and complete practical, teaching practice and Internship as laid down in the relevant ordinance.
2. In the event of a Research Scholar failing to obtain the stipulated 75% attendance, he/she shall apply through his/her Head of the department to the concerned Dean or to the Principal of the college wherein the Research Scholar is enrolled seeking partial relaxation of the applicable attendance norm. Subject to the condition that the concerned authority is convinced of the genuineness of the case, the concerned Dean of the faculty or the Principal of the college shall grant relaxation in attendance to the tune of a maximum of 5% and provided that the relaxation thus granted makes up for the stipulated attendance norm, the Research Scholar concerned shall be allowed to sit for the examination. Further, the Vice Chancellor shall condone the attendance to the tune of a maximum of 10%, on recommendation of the concerned Dean or the Principal of the college, for genuine reasons.
3. The course work shall be evaluated on the basis of the performance of the scholar in the Internal assessment examination(s) to be conducted by the concerned Department/ Institute/ Centre, and the End semester examination to be conducted by the University. The weightage for the Internal assessment and the End semester examination shall be in 25:75 ratio. In case, the scholar fails to secure a minimum of 55% marks in the Internal assessment examination, he/she shall be dropped from the program.
4. **Internal Assessment:** The department will develop the modalities of conducting internal assessments which includes the number of internal assessment test, types of test which may include written test, short-projects, term-papers, practical etc., timing of the test etc. The following shall be applicable:
  - a. At least one of the two/three Internal Assessment tests shall be a written test. Other internal Assessment tests shall be either assignments like term paper, book review, group discussion, seminar, practical or another kind of test at the discretion of the course teacher.
  - b. In case of exigencies and emergencies such as pandemic, natural disasters etc., the above criteria of conducting Internal Assessment tests shall be modified by the Head of the Department with due approval from the concerned /competent authority.
5. A scholar has to obtain a minimum of 55% of marks or its equivalent grade in the 7-point scale (or an equivalent grade/CGPA in a point scale followed) in the course work in order to be eligible to continue in the programme and submit the thesis. In case the scholar fails in the End Semester Examination of the course work, a supplementary examination shall be conducted by the University

  
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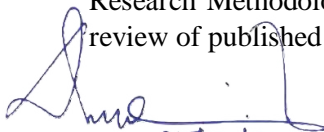
within two months from the date of declaration of the result. However, the scholar shall be dropped from the program if he/she fails again to clear the examination.

6. **Viva Voce of the Ph.D. (4 Credits):** The Viva Voce of the Ph.D. (4 Credits) includes the continuous evaluation of the research work undertaken by the scholar (2 credits for final viva voce and 2 credits for internal assessment). The Internal assessment (2 Credits) will be undertaken by the Academic Research Committee (ARC) so that the research scholar will be evaluated continuously throughout the research periods for the degree of Ph.D. The Viva-Voce for the program must be compulsory and an open Viva-Voce.
7. The University shall issue a composite marks card at the end of each completed semester examination(s) showing the SGPA and latest CGPA status of the Research Scholars. The University shall also issue a transcript, on application and with applicable fee at the end of the program by the scholar.
8. English shall be the medium of instruction for the examination.
9. Examinations shall be conducted at the end of each Semester as per the Academic Calendar notified by the University.
10. Duration of examination of each paper shall be 3 hours for 75 Marks and 2 Hours for 20 / 40 marks.
11. End-Semester Examination Questions Pattern (75/40/20 marks): as per University Examination Ordinance.
12. The Final Composite Certificate of the Ph.D.in Economics must clearly mention the following:
  - a. Name of the Dissertation
  - b. Date of Submission and Date of Award of the Degree
  - c. The award of Degree must be in accordance to the University Grants Commission (UGC) (Minimum Standards and Procedure of M.Phil. / Ph.D. Degree) Regulations, 2016
13. All the academic matters relating to the examination will be governed by the Examination Ordinance, in force, of the Rajiv Gandhi University

## **EXTRACTS FROM THE ORDINANCE RELATED TO DOCTOR OF PHILOSOPHY (Ph.D.)**

### **1. Course Work (Credit Requirements, Number, Duration, Syllabus, Minimum Standards for Completion.)**

- a. **Clause 6.1** The credit assigned to the Ph.D. course work shall be a minimum of 8 (eight) credits and a maximum of 16 (sixteen) credits.
- b. **Clause 6.2** The course work shall be treated as prerequisite for Ph.D. preparation. The Department/Institute/Centre shall assign a minimum of four credits to one or more courses on Research Methodology covering areas such as quantitative methods, computer applications, review of published research in the relevant field, training, field work, etc. Additionally, there

  
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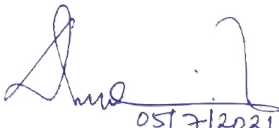
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shall be a compulsory course paper of two credits on Research and Publication ethics (as per the directives of UGC vide DO no – F.1-1/2018(Journal/CARE) dated December 2019). Other courses, with rest of the credit, shall be advanced level courses preparing the Research Scholars for Ph.D. degree.

- c. **Clause 6.3** The course work for Ph.D. shall be prescribed by the BPGS of the concerned Department / Institute/ Centre and approved by the FBS and the AC. All courses prescribed for Ph.D. course work shall be in conformity with the credit hour instructional requirement and shall specify content, instructional and assessment methods. The concerned DBS shall slightly modify/upgrade the contents of the course work as and when required and implement the same from next academic session on approval by the FBS and the AC.
- d. **Clause 6.5** Admitted scholars shall be required to complete the prescribed course work during the initial one semester as a regular Research Scholar fulfilling the mandatory attendance and other associated requirements for successful completion of the course. In-service candidates admitted in the Ph.D. course shall have to take mandatory study leave for the period from their employer/competent authority. However, those scholars who have been awarded M.Phil. Degree and/or have successfully passed M.Phil./Ph.D. course work in the concerned/relevant subject/discipline shall be either fully or partially exempted as the case may be from doing the prescribed course work provided such course work pursued earlier by them is considered equivalent and appropriate by the RAC and DBS, and so approved by the competent authority of the University. Such scholars as have been prescribed to pursue additional course work paper(s) shall have to fulfil the minimum requirement of 8 (eight) Credits to complete the Course Work.
- e. **Clause 6.6** The course work shall be evaluated on the basis of the performance of the scholar in the Internal assessment examination(s) to be conducted by the concerned Department/ Institute/ Centre, and the End semester examination to be conducted by the University. The weightage for the Internal assessment and the End semester examination shall be in 25:75 ratio. In case, the scholar fails to secure a minimum of 55% marks in the Internal assessment examination, he/she shall be dropped from the program.
- f. **Clause 6.7** A scholar has to obtain a minimum of 55% of marks or its equivalent grade in the UGC 7-point scale (or an equivalent grade/CGPA in a point scale wherever grading system is followed) in the course work in order to be eligible to continue in the programme and submit the thesis. In case the scholar fails in the End Semester Examination of the course work, a supplementary examination shall be conducted by the University within two months from the date of declaration of the result. However, the scholar shall be dropped from the program if he/she fails again to clear the examination.

## 2. Evaluation, Assessment Methods and minimum standards

- a. **Clause 8.1:** Prior to the submission of the thesis, the scholar shall make a presentation in the Department before the RAC which shall also be open to all faculty members and other research scholars and students. The feedback and comments obtained from them shall be suitably incorporated into the draft thesis in consultation with the RAC.

  
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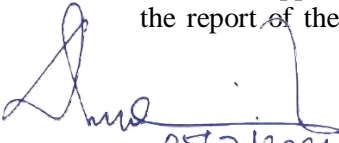
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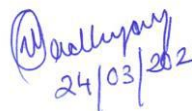
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- b. **Clause 8.2:** A Ph.D. scholar must publish at least one (1) research paper in refereed journal/ peer reviewed Journal / UGC Listed Journal and make two paper presentations in conferences /seminars/ symposiums/ congress before the submission of the thesis for adjudication, and produce evidence for the same in the form of presentation certificates and/or reprints.
- c. **Clause 8.3:** The thesis shall be subjected to detection of plagiarism and other forms of academic dishonesty by the Research Supervisor using the URKUND or any other software/gadgets as decided by the UGC, and a certificate generated thereupon is to be attached with the thesis. While submitting for evaluation, the thesis shall have an undertaking from the research scholar and a certificate from the Research Supervisor in prescribed format by the University attesting to the originality of the work, vouching that there is no plagiarism or the percent of plagiarism within the permissible limit and that the work has not been submitted for the award of any other degree/diploma of the University where the work was carried out, or to any other Institution, and also that provisions of the University ordinance for the award of Ph.D. degree is fulfilled. The scholar shall submit the hard copies of the thesis along with its electronic copy after having the same duly authenticated by the Supervisor(s) through the Head of the concerned department/center/institution to the Academic Branch. On satisfaction of the formalities and requirements, the Academic Branch shall forward the thesis to CoE for further onward action (evaluation).
- d. **Clause 8.4:** The thesis submitted by the Ph.D. scholar shall be evaluated by his/her Research Supervisor and at least two external examiners not below the rank of Associate Professor and not in the employment of the University. If the RAC resolves, one of the external examiners shall be from outside the country. The RAC shall submit through DRC a panel of 10 (ten) external examiners, not below the rank of Associate Professor or an equivalent position, to the CoE for obtaining approval of the Vice Chancellor/the competent authority who shall decide the names of the two external examiners for dispatching the thesis to them.
- e. **Clause 8.5:** The University shall adopt appropriate efficient mechanism so as to complete the entire process of evaluation of Ph.D. thesis within a period of 6 (six) months from the date of its submission. For the sake of expediting the evaluation process, the CoE shall email to the external examiners the electronic copy of the abstract of the thesis for obtaining their consent for evaluation, and on obtaining their willingness, the electronic copy of the thesis along with a prescribed format for submitting the evaluation report shall be sent to them with the hard copies of the same, whenever necessary, being sent through speed post. The office of the CoE shall send a gentle reminder to the Internal and External Examiners through email after 60 (sixty) days from the date of dispatch of the thesis followed by fortnightly reminders. In case the external examiner does not send his/her evaluation report within 30 (thirty) days from the date of the first reminder, then the thesis shall be sent to the third examiner. The examiner shall submit a signed copy of the evaluation report which shall otherwise be sent in the prescribed format through his/her official/certified email.
- f. **Clause 8.6:** The public viva-voce of the research scholar to defend the thesis shall be conducted only if the evaluation reports of both the external examiners on the thesis are satisfactory and include a specific recommendation for conducting the viva-voce examination. If one of the evaluation reports of the external examiners is unsatisfactory and does not recommend viva-voce, the CoE shall send the thesis to another external examiner out of the approved panel of examiners and the viva-voce examination shall be held only if the report of the latest examiner is satisfactory. If the report of the latest examiner is also

  
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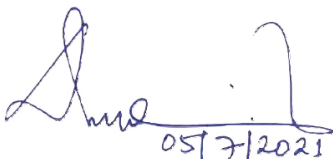
  
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विभाग अध्यक्ष/Head of the Department  
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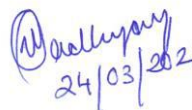
unsatisfactory, the thesis shall be rejected and the research scholar shall be declared ineligible for the award of the degree.

- g. **Clause 8.7:** The viva-voce examination of the scholar, based among other things, on the critiques given in the evaluation report, by both the examiners (internal and external), shall be conducted by the duly constituted viva-voce board, under the Chairmanship of the Dean of the concerned faculty, and shall be open to be attended by all members of the concerned RAC, faculty members of the Department, research scholars and other interested experts/researchers. On completion of the viva-voce of the scholar, the viva-voce board shall submit a report to the CoE along with the original copies of the thesis evaluation reports of all the examiners.
- h. **Clause 8.8:** The open viva-voce shall be conducted online with the desire of the external examiner or in case of any unprecedented situations such as epidemic and natural disaster. The scholar shall present his/her Viva-Voce online, in case of limited mobility due to medical emergency, epidemic, natural disaster, and otherwise such very exceptional and well admissible cases, provided the scholar makes such request for such exemption in writing to the Vice-Chancellor. The supervisor and the concerned Dean shall also attend the Viva-Voce on online, in case of being out of station/on long leave and due to their inability to remain physically present.
- i. **Clause 8.9:** The online Viva-Voce shall be conducted only when the scholar, the supervisor and the external expert, all agree and due approval is accorded by the Vice-Chancellor. The Head of the Department/Institute/Centre shall send all evaluation reports on the thesis of the scholar, received from the CoE, to the concerned external examiner and the Dean well in advance. He/she shall make necessary arrangement with active support from the supervisor and other concerned staff for conducting the On-line viva-voce and ensure a wider participation of all interested by issuing an advance notice. The minimum duration of the online Viva-Voce should not be less than an hour and the entire proceeding should be video recorded and submitted to the COE. In case the Viva-Voce is not conducted due to any unprecedented situations or technical problems, the same shall be conducted on a later date on approval of the Vice-Chancellor.
- j. **Clause 8.10:** On completion of the viva-voce of the scholar, the internal members of the viva-voce board shall assess and finalize the report with assent of the concerned external examiner, and send the same through official email to him/her for signature. He/she shall send back the signed and scanned copy through his/her official/certified email. The signed copy of the viva-voce report along with the original copies of the thesis evaluation reports of all the examiners shall be forwarded to the CoE by the Head of the Department/Institute/Centre.
- k. **Clause 8.11:** If the viva-voce board and the External Examiner, in particular, is not satisfied with the performance of the scholar, then the scholar shall be asked to reappear for a second viva-voce after a period of 2 (two) months but within a maximum period of 6 (six) months.

  
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9

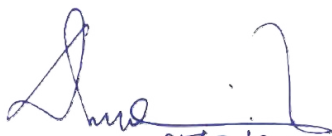
  
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## PROGRAM STRUCTURE

**Minimum – 24 Credits (Course Work: 12 Credits & Dissertation & Viva Voce: 12 Credits)**

First Semester							
Papers	Paper code and name	Credit	Composition of the credit for LTP (L:T:P)	Number of credit hours and modules	Distribution of marks		
					Semester end	Practice/ Practical	Internal
<b>Paper-I</b>	<b>ECO(C)-711:</b> Research Methodology <b>(Core paper)</b>	4	3:0:1	50 hours & 4 modules	50	25	25
<b>Paper- II</b>	<b>ECO (C)-712:</b> Research and Publication Ethics <b>(Core paper)</b>	2	1:0:1	30 hours & 6 modules	20	20	10
<b>Paper-III</b> <i>(Scholars from parent department/ other departments can opt for any one paper from this group)</i>	<b>ECO (O) -721:</b> Development Economics <b>(Open Paper)</b>	2	2:0:0	20 hours & 2 modules	40	0	10
	<b>ECO(O)-722:</b> Environment and Sustainable Development <b>(Open Paper)</b>	2	2:0:0	20 hours & 2 modules	40	0	10
	<b>ECO(O)-723:</b> The Economy of the Informal Sector <b>(Open Paper)</b>	2	2:0:0	20 hours & 2 modules	40	0	10
	<b>ECO(O)-724:</b> Issues in Indian Agriculture <b>(Open Paper)</b>	2	2:0:0	20 hours & 2 modules	40	0	10
<b>Paper-IV</b> <i>(At least one paper is to be opted by the Scholars of the parent department)</i>	<b>ECO(E)-731:</b> Advanced Economic Theory <b>(Elective Paper)</b>	4	4:0:0	40 hours & 4 modules	75	0	25
	<b>ECO(E)-732:</b> International Trade and Development <b>(Elective Paper)</b>	4	4:0:0	40 hours & 4 modules	75	0	25
	<b>ECO(E)-733:</b> Contemporary Issues in Indian Economy <b>(Elective Paper)</b>	4	4:0:0	40 hours & 4 modules	75	0	25
	<b>ECO(E)-734:</b> Gender and Development: Regional Dimension with special reference to India. <b>(Elective Paper)</b>	4	4:0:0	40 hours & 4 modules	75	0	25
	<b>ECO(E)-735</b> Advanced Econometrics <b>(Elective Paper)</b>	4	4:0:0	40 hours & 4 modules	75	0	25
Second semester							
<b>Dissertation and viva-voce</b>	8+4	<b>ECO-700:</b> Dissertation-8 credits	Internal assessment of research work-2 credits	<b>ECO-701</b> Viva-voce -2 credits			
NB: L-Lecture, T-Tutorial, P-Practice/Practical							

  
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10

  
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## ECO (C)- 711: Research Methodology

**Credit: 04 (3 Lectures + 0 Tutorial + 1 Practical)**

**Total Credit Hour: 50 hours**

**Internal Assessment: 25 marks**

**End Semester Examination: 75 Marks**

**Total Marks: 100 Marks**

### Course Objectives:

*Compulsory for all the scholars admitted into Ph.D.in Economics, this paper deals with the methodology and procedure followed in research in social sciences in general and in Economics in particular. Of the four units of the syllabus, the first two deals with nature and types of research, sampling and the collection of data representative of the universe. The next two units are concerned with the estimation procedure of a structural model of the economy and its estimation by using statistical software.*

### Course Outcome:

*Invaluable to all the Ph.D. scholars, this paper has proved to be a common guidebook of all researchers in the Department of Economics.*

### **Module I: Elements of Social Science Research**

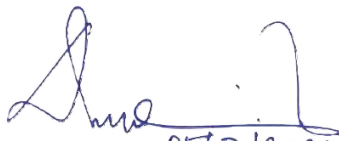
Meaning of Research – Social Science research and its Objectives – Types: Participant Observations, Action research, Participant Action Research, Community based research; quantitative and qualitative research, economic research and its problems, Research Design: importance, features of a good research design, research plan

### **Module II: Instruments of Social Science Research**

Identification of the economic problem to be researched – literature review, construction of conceptual frame work, formulation of hypothesis, Data – Secondary and primary, collection of primary data – preparation of questionnaire

Population/Universe and Sample; Sampling methods: Simple, random, stratified, stratified random, clustered, purposive, accidental and snowball; sampling and non-sampling error; Cochran method of drawing sample size from the universe.

Empirical testing of the hypothesis and report writing. Referencing Methods: APA and Chicago

  
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### Module III: Empirical Methods of Estimation

Estimation of general linear regression model, and testing the significance of the co-efficients and construction of their confidence intervals: Violation of the assumptions: heteroskedasticity and its solution: testing of autocorrelation and its removal: generalized least squares; Multicollinearity; Error in variables and solutions.

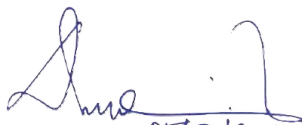
### Module IV: Computer Application in Social Science research (Practice)

MS word, MS excel, MS power point, Data entry, tabulation, graphs, Application of statistical software: Descriptive statistical analysis, correlation and regression-Linear, Log-linear, LOGIT, PROBIT, TOBIT

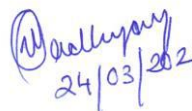
**Note: Special emphasis should be given on interpretation of the results obtained.**

### Recommended Readings:

1. Bardhan, Pranab and Isha Ray (eds.), *The Contested Commons: Conversations between economist and anthropologist*, Oxford University Press, New Delhi, 2008.
2. Outhwaite, William & Stephen P Turner (ed.). *The Sage Handbook of Social Science Methodology*, London: Sage, 2007.
3. Zina, O'Leary. *The Essential Guide to Doing Research*, New Delhi, Vostaar Publications, 2004.
4. Guthrie, Gerard, *Basic Research Methods: An Entry to Social Science Research*, London: Sage, 2010
5. Ghosh, B N. *Scientific Methods and Social Science Research*, New Delhi, 1987.
6. Johnston, J. *Econometric Methods*, New Delhi: McGraw – Hill (latest edition).
7. Kumar Ranjit, *Research Methodology: A Step-by-Step Guide for Beginners*, Delhi: Pearson, 2007 (2<sup>nd</sup> edition)
8. Box, George & P Jenkins, G M & Reinsel, G C, *Time Series Analysis*, Delhi: Pearson, 2007(3<sup>rd</sup> edition)
9. Stock, J H and Watson, M W, *Introduction to Econometrics*, Delhi Pearson, 2003.

  
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12

  
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## ECO(C)-712: Research and Publication Ethics

**Credit: 02 (1 Lectures + 0 Tutorial + 1 Practical)**

**Total Credit Hour: 30 hours**

**Internal Assessment: 10 marks**

**Practical Examination: 20 Marks**

**End Semester Examination: 20 Marks**

**Total Marks: 50 Marks**

### Course Objectives:

*To make the research scholars aware about the research and publication ethics, and publication misconducts.*

### Course Outcome:

*The outcome of the course is to acquaint the research Scholars about the research and publication ethics, and publication misconducts.*

## THEORY

### **Module I: Philosophy and Ethics**

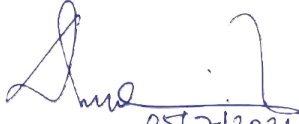
Introduction to philosophy: definition, nature and scope, concept, branches; Ethics: definition, moral philosophy, nature of moral judgements and reactions

### **Module II: Scientific Conduct**

Ethics with respect to science and research; Intellectual honesty and research integrity; Scientific misconducts: Falsification, Fabrication, and Plagiarism (FFP), Redundant publications: duplicate and overlapping publications, salami slicing; Selective reporting and misrepresentation of data

### **Module III: Publication Ethics**

Publication ethics: definition, introduction and importance; Best practices/ standards setting initiatives and guidelines: COPE, WAME, etc.; Conflicts of interest; Publication misconduct: definition, concept, problems that lead to unethical behaviour and vice versa, types; Violation of publication ethics, authorship and contributorship; Identification of publication misconduct, complaints and appeals; Predatory publishers and journals

  
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13

  
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## PRACTICE

### **Module IV: Open Access Publishing**

Open access publications and initiatives; SHERPA/RoMEO online resource to check publisher copyright & Self-archiving policies; Software tool to identify predatory publications developed by SPPU; Journal finder/ journal suggestion tools viz. JANE, Elsevier Journal Finder, Springer Journal Suggester, etc.

### **Module V: Publication Misconduct**

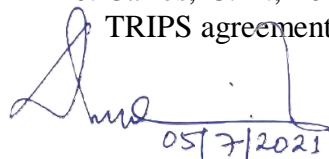
(i) Group Discussions (2 hrs.): Subject specific ethical issues, FFP, authorship; Conflicts of interest; Complaints and appeals: examples and fraud from India and abroad. (ii) Software tools (2 hrs.): Use of plagiarism software like Turnitin, Urkund and other open-source software tools

### **Module VI: Databases and Research Metrics**

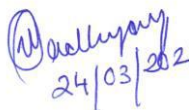
(i) Databases (4 hrs.) – Indexing databases; Citation databases: Web of Science, Scopus, etc. (ii) Research Metrics (3 hrs.): Impact Factor of journal as per Journal Citation Report, SNIP, SJR, IPP, Cite Score; Metrics: h-index, g-index, i10 index, altmetrics

### **References:**

1. Bird, A. (2006). Philosophy of Science. Routledge.
2. Macintyre, Alasdair (1967) A Short History of Ethics. London.
3. P. Chaddah, (2018) Ethics in Competitive Research: Do not get scooped; do not get plagiarized, ISBN:978-9387480865
4. National Academy of Sciences, National Academy of Engineering and Institute of Medicine. (2009). On Being a Scientist: A Guide to Responsible Conduct in Research: Third Edition. National Academies Press.
5. Resnik, D. B. (2011). What is ethics in research & why is it important. National Institute of Environmental Health Sciences, 1-10. Retrieved from <https://www.niehs.nih.gov/research/resources/bioethics/whatis/index.cfm>
6. Beall, J. (2012). Predatory publishers are corrupting open access. Nature, 489(7415), 179-179. <https://doi.org/10.1038/489179a>
7. Indian National Science Academy (INSA), Ethics in Science Education, Research and Governance (2019), ISBN:978-81-939482-1-7. <http://www.insaindia.res.in/pdf/EthicsBook.pdf>
8. Satarkar, S.V., 2000. Intellectual property rights and Copy right. EssEss Publications.
9. Wadehra, B.L. 2000. Law relating to patents, trademarks, copyright designs and geographical indications. Universal Law Publishing.
10. Carlos, C.M., 2000. Intellectual property rights, the WTO and developing countries: the TRIPS agreement and policy options. Zed Books, New York.

  
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## ECO (O) -721: Development Economics

**Credit: 02 (2 Lectures + 0 Tutorial + 0 Practical)**

**Total Credit Hour: 40 hours**

**Internal Assessment: 10 marks**

**End Semester Examination: 40 Marks**

**Total Marks: 50 Marks**

**(Open Elective Paper)**

### Course Objectives:

*This is the advanced level study of the issues of economic development in the poor countries. Allocational aspects are highlighted in the investment in the different sectors. So inter-sectoral allocations, social capital, input-output models of India are studied and issues relating to political economy, among others, are covered.*

### Course Outcome:

*It is not only in India but also in many developing countries, the fundamental causative factors of underdevelopment are not identified correctly in view of their being hidden in the very structure of the poor society. The students are being made aware of the actual issues of development. This paper has succeeded in making the students aware of real issues regarding the development in a poor society*

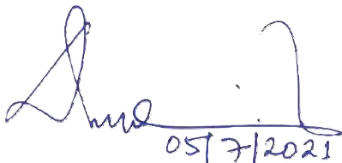
### **Module I: Growth and Development**

Economic growth versus development; Measurement of economic development: physical quality of life index, Human development index, gender development index, human poverty index. Role of market, Government and community in economic Development; Inclusive development: MDGs, SDGs

### **Module II: Social Sector: Education and Health**

Educational inequality in India: Access: gross enrollment ratio, net enrollment ratio, Availability of infrastructure: teacher, classroom and learning outcome; Public expenditure in education, Private expenditure in education, WTO and education in India

Health: Access to health and health infrastructure availability in the regional perspective, immunization, institutional delivery, number of hospital, hospital beds, number of doctors and other health workers; health outcome: life expectancy, infant mortality, maternal mortality. Health expenditure: public and private expenditure on health, out of pocket health expenditure and health insurance.

  
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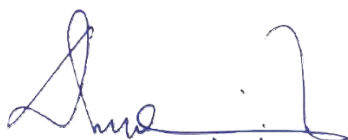
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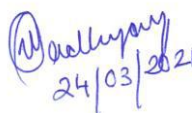
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## Recommended Readings:

1. Adelman, J., *Theories of Economic Growth and Development*, Stanford University Press, 1961.
2. Bhaduri, Amit, *Development with Dignity: A Case of Full Employment*, National Book Trust, 2007
3. Domar, E.D., *Essays in Theory of Economic Growth*, Oxford University Press, New York.
4. Kaldor, N., *Essays on Economic Stability and Growth*, Duckworth, London, 1980.
5. Solow, R. M., *Growth Theory: An Exposition*, Oxford University Press, 2000.
6. Thirwal, A.P., *Growth and Development*, Macmillan, London, 1999.
7. Meier, G., *Leading Issues in Economic Development*, Oxford University Press, New Delhi, 1990.
8. Higgins, B., *Economic Development*, W.W. Norton, New York, 1959.
9. Todaro, M.P., *Economic Development*, Longman, London, 1996.
10. Myrdal, G., *Economic Theory and Underdeveloped Regions*, Duckworth, London, 1957.
11. Ray, D., *Development Economics*, Oxford University Press.
12. UNDP, *Human Development Reports*, Oxford University Press.
13. Ashok Pankaj, Atul Sarma and Antora Borah (2020) (Ed), *Social Sector Development in Northeast India*, Sage, New Delhi
14. Sen, A. (Ed), *Growth Economics*, Penguin, Harmondsworth, 1990.

  
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16

  
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## ECO (O) -722: Environment and Sustainable Development

**Credit: 02 (2 Lectures + 0 Tutorial + 0 Practical)**

**Total Credit Hour: 40 hours**

**Internal Assessment: 10 marks**

**End Semester Examination: 40 Marks**

**Total Marks: 50 Marks**

**(Open Elective Paper)**

### Course Objectives:

*Environmental issues remained at the periphery of Economics for a long time – only in cost benefit analysis of the new projects environmental issues were considered explicitly. But what happened in practice is that the socio-economic benefits of a project often outweighed the environmental costs. Frequently it was argued that a poor country should address the developmental issues first and then it should take up the environmental issues. Guided by objectivity, the syllabus prepared for environmental economics addresses the major environmental issues emanating from different kinds of activities.*

### Course Outcomes:

*This paper has succeeded in changing the outlook of the students in so far as their knowledge of environment is concerned – they can now think of the environmental issues rigorously.*

### **Module I: Environmental Valuation Methods and its Application**

Values of environmental goods, Need for environmental valuation, Valuation methods: Revealed preference (Direct proxy method) -Productivity change method, Substitute cost method – Revealed preference (non- proxy method)- travel cost and Hedonic price method (conceptual Framework and case studies); Stated preference – Contingent valuation method – (Conceptual framework and case studies) – limitations.

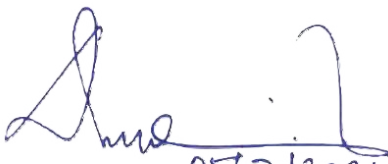
### **Module II: Sustainable Development and Environmental Policies**

Issues of sustainable development, green accounting of national income, rules to sustainability, sustainable development goals. Environmental policies in India and its evaluation.

### **Recommended Readings:**

1. Rangarajan, Mahesh, '*Environmental Issues in India: A Reader*', Pearson, 2006
2. Gadgil, Madhab and Ramachandra, Guha, '*This Fissured land: An Ecological History of India*', Oxford University Press, New Delhi, 1992
3. Hanley N, J.F. Shogern and Ben White, '*Environmental Economics in Theory and Practice*', Macmillan, 1997.

4. Kolstad, C.D., *Environmental Economics*, Oxford University Press, New Delhi, 1999.
5. Sankar, U. (Ed), *Environmental Economics*, Oxford University Press, New Delhi, 2001.
6. Dasgupta, Partha, *The Control of Resources*, Oxford University Press, New Delhi, 1982.
7. Fisher Antony, *Resource and Environmental Economics*, Cambridge University Press, 1981.
8. Pearce D.W., *Environmental Economics*, Longman, London, 1972.
9. Chopra, K. (1998), *Valuation of Bio-diversity within Protected Areas: Alternative Approaches and a Case Study*, Institute of Economic Growth, Delhi, 1998.
10. Chopra, K., G.K. Kadekodi and K.N. Murty, *Participatory Development: An Approach to the Management of Common Property Resources*, SAGE, New Delhi, 1990.
11. Dasgupta, P.S. and G.M. Heal, *Economic Theory and Exhaustible Resources*, Cambridge University Press, Cambridge, 1985.
12. Kerr, J.M. et al (Eds), *Natural Resource Economics: Theory and Applications in India*, Oxford and IBH Publication Co. Pvt. Ltd., New Delhi, 1997.
13. Bhattacharya, R.N. (Ed), *Environmental Economics – An Indian Perspective*, Oxford University Press, New Delhi, 2001.
14. Pearce, D.W., and R.K. Turner (1990): *Economics of Natural Resources and the Environment*, The Johns Hopkins University Press
15. Stavins, R.N (2000): *Economics of the Environment*, fourth edition, W.V. Noston and company, New York
16. Field, B.C (2012): *Natural Resource Economics: An Introduction*, second edition, Levant Books, Kolkata
17. Callan, S.J and J.M. Thomas (2000): *Environmental Economics and Management: Theory, Policy and Application*, second edition, The Dnyden Press, Orlando, Florida.
18. Conrad, J.M (1999): *Resource Economics*, Cambridge university Press

  
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## ECO(O) -723: The Economy of the Informal Sector

**Credit: 02 (2 Lectures + 0 Tutorial + 0 Practical)**

**Total Credit Hour: 40 hours**

**Internal Assessment: 10 marks**

**End Semester Examination: 40 Marks**

**Total Marks: 50 Marks**

**(Open Elective Paper)**

### Course Objectives:

*The Informal sector is the backbone of the Indian Economy. The understanding of the issues related to the informal sector is necessary to have a better understanding of the Indian economy as a whole. This paper would try to educate the researcher on different issues related to the informal sector in India and across the developing countries.*

### Course Outcome:

*This paper would enable the potential researcher to conduct some in-depth research work in the unorganised sector.*

### **Module I: The Informal Enterprises and Labour**

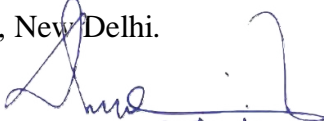
Unorganised or informal sector: Unorganised enterprises and informal workers; Rural and urban informal sector; Theories of unorganised sector: Boeke, Lewis and Todaro; Explanation for the growth of unorganised sector: Growth led and distress driven development in informal sector; Interlinkages between formal and informal sector; Trends and magnitude of informal sector in India; Women in informal sector.

### **Module II: Government Policies for the Informal Sector in India**

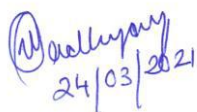
Problems of Informal sector; Cluster development and Growth pole programmes; Social security in the informal sector, access to credit, market (both input and output) and insurance in the informal sector.

### **Recommended Readings:**

1. Agarwal, M. K. and R. C. Dhakal (2010): 'Informal Sector and Income Generation in Nepal- A Case Study of Chitwan District', *The Indian Journal of Labour Economics*, Vol.53, No.2, Pp: 267-284.
2. Banerjee, A. V. and E. Duflo (2011): *Poor Economics – A Radical Rethinking of the Way to Fight Global Poverty*, Random House India, Noida.
3. Bhalla, S. (2009): *Definition and statistical Issues Relating to Workers in Informal Employment*, National Commission for Enterprises in the Unorganised Sector, Government of India, New Delhi.

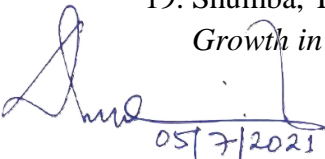
  
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19

  
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4. Bhavani, T. A. and N. R. Bhanumurthy (2012): *Financial Access in Post- reform India*, Oxford University Press, New Delhi.
5. Boeke, J.H. (1953): *Economics and Economic Policy of Dual Societies*, Institute of Pacific Relations, New York.
6. Farazi, S. (2014): *Informal Firms and Financial Inclusion: Status and Determinants*, Policy Research Working Paper 6778, (The World Bank, Development Research Group, Finance and Private Sector Development Team, February).
7. Ghose, A. (2016): *Informality and Development*, Presidential Address delivered at 58<sup>th</sup> Annual Conference of Indian Society of Labour Economics, IIT Guwahati, 24<sup>th</sup> November.
8. Hansenne, M. (1991): *The Dilemma of the Informal Sector- Report of Director General (Part I)*, International Labour Conference 78<sup>th</sup> Session, Geneva, 28 January.
9. Harris, J. R. and M. P. Todaro, (1970): 'Migration, Unemployment and Development: A two Sector Analysis', *American Economic Review*, Vol. 60, No.1, Pp:126- 142.
10. Lewis, W. A. (1954): *Economic Development with unlimited Supply of Labour*, The Manchester School.
11. NCEUS (2007): *Report on Financing of Enterprises in the Unorganised Sector & Creation of a National Fund for the Unorganised Sector (NAFUS)*, National Commission for Enterprises in the Unorganised Sector, New Delhi, November.
12. NCEUS (2008): *Contribution of the Unorganised Sector to GDP Report of the Sub-Committee of a NCEUS Task Force*, National Commission for Enterprises in the Unorganised Sector, New Delhi, June.
13. NSSO (2001): *Informal Sector in India 1999-2000, Salient features*, NSS 55<sup>th</sup> round (July 1999- June 2000), Ministry of statistics and Programme Implementation, Government of India.
14. NSSO (2003): *Unorganised Service Sector in India (2001- 02): Characteristics of Enterprises*, Report No. 483, NSS 57<sup>th</sup> Round (Ministry of statistics and Programme Implementation, Government of India).
15. NSSO (2008): *Unorganised Manufacturing Sector in India: Employment, Assets and Borrowings*, Report No.525, NSS 62<sup>nd</sup> Round, 2005-2006, Ministry of statistics and Programme Implementation, Government of India.
16. NSSO (2009): *Service Sector in India (2006-07): Operational Characteristics of Enterprises*, Report No.528, NSS 63<sup>rd</sup> Round, Ministry of statistics and Programme Implementation, Government of India.
17. NSSO (2013): *Economic Characteristics of Unincorporated Non- Agricultural Enterprises (Excluding construction) in India, 2010-11*, Report No. 549, NSS 67<sup>th</sup> Round, Ministry of statistics and Programme Implementation, Government of India.
18. Ray, S., S. K. Mahapatra and S. Nath (2019): 'Over-indebtedness and Its Drivers among Microfinance Borrowers in India', *Economic and Political Weekly*, Vol. 54, No.7, pp:47-53.
19. Shumba, H. (2016). *Financial Inclusion of the Informal Sector as an enabler to Economic Growth in Zimbabwe*

  
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## ECO (O)-724: Issues in Indian Agriculture

**Credit: 2Credit: 02 (2 Lectures + 0 Tutorial + 0 Practical)**

**Total Credit Hour: 40 hours**

**Internal Assessment: 10 marks**

**End Semester Examination: 40 Marks**

**Total Marks: 50 Marks**

**(Open Elective Paper)**

### Course Objectives:

*Agriculture is still considered to be the backbone of the Indian economy. However, the sector is subject to many challenges. Hence, this paper aims to give an insight about the state of Indian agriculture in recent times, its functioning and the significance of the agricultural factor markets and the basic issues concerning the sector.*

### Course Outcome:

*This paper will provide an overview of the agriculture in the country and some basic understanding of some of the important issues of the sector. This would help the students to identify the issues to be researched.*

### **Module I: Agriculture and Factor Markets**

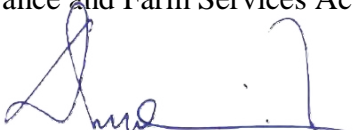
State of Agriculture in India- share in GDP and employment, cropping pattern, crop diversification towards HYV seeds, cropping intensity, irrigation, mechanization.

Small and fragmentation of holdings and markets of primary inputs of agriculture – land, labour, capital and water; Market for support services-credit, extension service and insurance

### **Module II: Some Issues and Recent Agricultural Reforms**

Farmers' distress; Green Revolution and environment; climate change and its impact on agriculture; Farm income and the Goal of Doubling of farmers income.

Recent agricultural reforms- The Farmer's Produce Trade and Commerce (Promotion and Facilitation) Act, 2020, The Farmers (Empowerment and Protection) Agreement on Price Assurance and Farm Services Act, 2020, The Essential Commodities (Amendment) Act, 2020.

  
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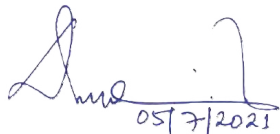
21

  
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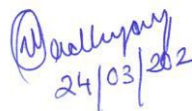
## Recommended Readings:

1. Chand, R, *Doubling Farmers' Income: Strategy and Prospects*, Presidential address, Seventy sixth annual conference, The Indian Society of Agricultural Economics, 2016
2. Goswami, Binoy, M P Bezbaruah and Raju Mandal (eds.), *Indian Agriculture after the Green Revolution: Changes and Challenges*, Routledge: Abingdon, Oxfordshire, UK and New York, USA, 2018
3. Kapila, Uma (Ed.), *India's Economic Reforms*, Academic Foundation, New Delhi.
4. Ministry of Agriculture & Farmers' Welfare (2017), *Report of the Committee on Doubling Farmers' Income*, Volume II, Department of Agriculture, Cooperation and Farmers' Welfare. \
5. Ray, Debraj, *Development Economics*, Oxford University Press, New Delhi, 2011

  
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22

  
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## ECO (E) -731: Advanced Economic Theory

**Credit: 04 (4 Lectures + 0 Tutorial + 0 Practical)**

**Total Credit Hour: 40 hours**

**Internal Assessment: 25 marks**

**Total Marks: 75 Marks**

**(Elective Paper)**

### Course Objectives:

*This is the paper covering a wide range of topics: advanced demand theory, oligopoly and asymmetric information from Microeconomics, business cycles, rational expectation and policy ineffectiveness from macroeconomics and also deals with financial economics. Financialization of the economy and financial integration of the world economy have made financial economics very useful to the scholars.*

### Course Outcome:

*This paper has strengthened, sharpened and deepened the understanding of a growing segment of a modern economy.*

### **Unit-I: Demand Theory**

Shape of the utility function and risk: von Neumann-Morgenstern Utility Theorem, Envelop Theory; Duality in demand theory: Properties of Marshallian and Hicksian demand functions; Empirical estimation of demand (Rotterdam Model): Kaldor's theory of distribution.

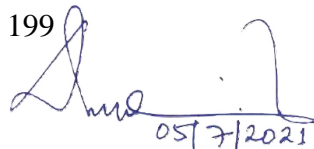
### **Unit II: Market**

Oligopoly: application of both cooperative and non-cooperative games to the solution of oligopoly problems, Asymmetric information and market: Adverse selection and moral hazard, Akerlof's theory of market for lemons, elements of auction theory

### **Unit III: Macro Economics in Closed and Open Economy**

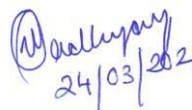
New Classical Macro Model: Adaptive expectation, Rationale expectation and Policy ineffectiveness; Real business cycle model; New Keynesian Model and their critique.

Open Economy Macro Model: Mundell-Fleming Model, flexible exchange rate and problems of Monetary and Fiscal Policy in the open Economy model, case studies of Indian monetary and fiscal policies since 199

  
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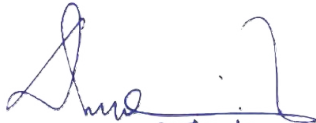
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## Unit IV: Financial Economics

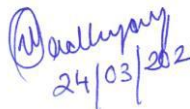
Debt and equity financing of a business; Cost of Capital: Net Income Approach, Net Operating Income Approach, Traditional Theory of Gearing, Modigliani-Miller Theory; Derivatives: Types, Binominal pricing model and Black-Scholes model of derivative pricing.

### Recommended Readings:

1. Birman H Scot & L Fernandez *Game Theory with Economic Application*, Pearson Education, 2003.
2. Froyen, R T *Macroeconomics*, Delhi: Pearson, 1999.
3. Hoover, K D *The New Classical Macro-Economics*, Oxford: Black well, 1988.
4. Elton, E J and Grucer, M J *Modern Portfolio Theory and Investment Analysis*, Singapore, John Wiley, 2001.
5. Mclaney, E J *Business Finance: Theory and Practice*, Delhi: Pearson, 2000.
6. Paul, Davidson, '*Post Keynesian Macroeconomic Theory*', EE, Second edition, 2011
7. Sharpe, W F, Alexander, G J and Bailey, J V *Investments*, New Delhi: Prentice Hall, 1995.
8. Sheffrin, M Steven, '*Rational Expectations*', Cambridge University Press, 1996.

  
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## ECO (E) -732: International Trade and Development

**Credit: 04 (4 Lectures + 0 Tutorial + 0 Practical)**

**Total Credit Hour: 40 hours**

**Internal Assessment: 25 marks**

**Total Marks: 75 Marks**

**(Elective Paper)**

### Course Objectives:

*To strengthen and deepen the understanding of the scholars on modern trade theories and the problem of managing the balance of payments. Both trade and balance of payments have acquired enhanced importance with the slow but steady integration of Indian economy with the global economy. This paper also deals with the institutional factors constraining the development process and difficulty in utilisation of the natural resources. The environmental economics also forms a unit of this paper.*

### Course Outcome:

*This paper contains important topics relevant to the proper understanding of the issues of development in an increasingly competitive and financially integrated world. Especially important are the institutional and legal constraints: property rights, contract enforcement mechanism, etc., which in the short run or even in median run are parametric. The scholars find this paper boosting their understanding of the 'actual' constraints to development.*

### **Unit: I: Theory of International Trade**

Trade under increasing Return – Imperfect competition, Intra-industry trade – Product Life Cycle Theory.

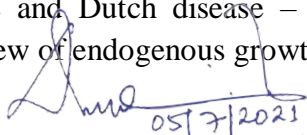
### **Unit II: Balance of Payments**

Convertibility – current and capital Accounts, Theories of Regional trade Block, Evolution of European Union, BREXIT, Optimum Currency area, SAPTA, SAFTA and Brics.

### **Unit III: Basic issues and Factors in Development**

Problems of market: its immaturity, imperfect information, lack of credibility, property rights, and externality – problems in the development of market: adverse selection and moral hazards; Role of State: Peter B Evans' State as the problem and solution: Predation embedded autonomy and structural change.

Natural resource and Dutch disease – technological progress, human capital and increasing return, an overview of endogenous growth models and its evaluation.

  
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25

  
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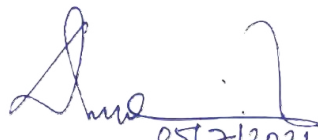
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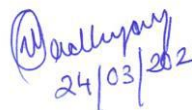
## Unit IV: Trade Policy as input to Transition, Development and Integration

Regionalism and multilateralism, extent of regionalism: coexistence and conflicts, developing countries: growth crisis and need for reform, trade as input to development, transition and liberalization, theory of economics integration, effects of integration and the basic methods

### Recommended Readings:

1. Meier, G M and Rauch, J E (ed.) *Leading Issues in Economic Development*, Oxford University Press, 7<sup>th</sup> edition.
2. Macho-Stadler, I and Perez-Castillo, J D. *An Introduction to the Economics of Information*, Oxford University Press, 2001.
3. Mikic, Mia. *International Trade*, Macmillan Education, St. Martin's Press, Scholarly and Reference Division, 175 Fifth Avenue, New York, NY10010, 1998
4. Soderston, B, *International Economics*, Prentice Hall, Upper Saddle River, N J New York, 1997.
5. Salvator, D. *International Economics*, Prentice Hall, Upper Saddle River, N J New York, 1997.
6. Markandya A and Harou Patrice, *Environmental Economics for Sustainable Growth*, Edward Elger, USA, 2002.
7. Pearce, D W, *Environmental Economics*, Longman, London, 1992.

  
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## ECO(E) -733: Contemporary Issues in Indian Economy

**Credit: 04 (4 Lectures + 0 Tutorial + 0 Practical)**

**Total Credit Hour: 40 hours**

**Internal Assessment: 25 marks**

**Total Marks: 75 Marks**

**(Elective Paper)**

### Course Objectives:

*To acquaint the students with the conditions of the Indian economy and its institutional structure – in many instances the students find economic dealing with the problems of the developed countries in depth and only touching tangentially the ‘real’ problems of the developing countries, including India. This syllabus tries to remove this anomaly. The ‘real’ problem in a developing country, like India is a weak property rights regime and also weak contract enforcement mechanisms. All these are included so as to make the scholars aware of what are the ‘real’ constraints of Indian economy.*

### Course Outcome:

*This paper has succeeded in making the students aware of what are the ‘real’ constraints to the growth of the Indian economy and the factors underlying the regional economic disparity in the country.*

### **Unit I: Contemporary Issues in Banking, Finance and Corporate Restructuring**

Banking reform: Nationalization, Non-performing assets and privatization of banks; GST and demonetization

### **Unit II: Contemporary Issues in Social Sector**

Rural Livelihood Mission, MGNREGA, NRHM, SSA, Social Security

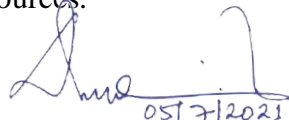
### **Unit III: Pandemic and Indian Economy**

Impact of the Covid19 pandemic on the Indian Economy. Impact on Employment and Labour Market, Labour migration

### **Unit IV: Policy Issues and the Arunachal Economy**

Poverty alleviation programmes – Employment generation – Inclusive growth – Evaluation of Five-year plans with special emphasis on the 11<sup>th</sup> and 12<sup>th</sup> five-year plans.

Problems of Arunachal Economy: Structure of Arunachal economy, its evolution, characteristics of traditional economies, institutional structure, technology, mode of surplus disposal, Growth pattern and its sources.

  
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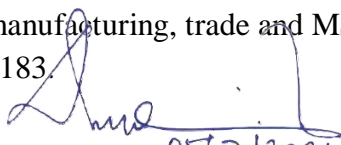
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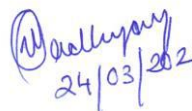
विभाग अध्यक्ष/Head of the Department  
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Department of Economics  
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## Recommended Readings:

1. Ahluwalia, I J and IMD Little (eds.) *India's Economic Reforms and development* (Essays in honour of Manmohan Singh), Oxford University Press, New Delhi, 1999.
2. Bardhan, P. (1991) *The Political Economy of development in India*, Oxford University Press, New Delhi.
3. Dev, S. M., & Sengupta, R. (2020). *Covid-19: Impact on the Indian economy*. Indira Gandhi Institute of Development Research, Mumbai, April.
4. Government of India, *Economic Survey (annual)*, Ministry of Finance, New Delhi.
5. Government of Arunachal Pradesh (2005) *Arunachal Pradesh Human Development Report*, Itanagar.
6. Government of India, (2009) *Arunachal Pradesh Development Report 2008*, Planning Commission, Academic Foundation, New Delhi.
7. Mishra K Deepak (2016) (Ed) *Internal Migration in Contemporary India*, Sage Publications, New Delhi.
8. Mishra K Deepak and Vandana Upadhyay (2017) (Ed) *Rethinking Economic Development in North East India: The Emerging Dynamics*, Routledge, London/New Delhi.
9. Mishra K Deepak and Pradeep Nayak (2020) (Ed) *Land and Livelihoods in Neoliberal India*, Springer, Palgrave Macmillan, Singapore.
10. Mishra, K. Deepak et. al (2020) *Surviving the Pandemic: Ground Reports From India's Villages*, Bhubaneswar: Development Research Institute.
11. Mitra, A., *Internal Migration and Economic Development in the Hills*, Omsons Publications, New Delhi, 1997.
12. Jalan, B. (1992) *The Indian Economy – Problems and Prospects*, Vikash, New Delhi.
13. Kapila, Uma (ed.) *India's Economic Reforms*, Academic Foundation, New Delhi.
14. Kapoor, R. (2020). COVID-19 and the State of India's Labour Market. *ICRIER Policy Series, 18*.
15. Khera, Reetika (2011) *The Battle for Employment Guarantee*, Delhi: Oxford University Press
16. Radhakrishnan, R (ed) *India Development Report – 2004-05 and latest issues*, Oxford University Press, New Delhi.
17. *Specific Papers Published in EPW and other Research Journals*.
18. Roy, N. C. (1996) 'Growth and Structural Changes in the Economy of Arunachal Pradesh', *Arunachal University Research Journal*, Vol.1, No.1, pp. 48-56
19. Roy, N.C. and P. K. Kuri (2001) *Land Reforms in Arunachal Pradesh*, Classical Publishing House, Delhi.
20. Sahoo, P., & Ashwani. (2020). COVID-19 and Indian economy: Impact on growth, manufacturing, trade and MSME sector. *Global Business Review*, Vol. 21(5), 1159-1183.

  
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28

  
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**ECO (E) -734**  
**Gender and Development:**  
**Regional Dimension with special reference to India**

**Credit: 04 (4 Lectures + 0 Tutorial + 0 Practical)**

**Total Credit Hour: 40 hours**

**Internal Assessment: 25 marks**

**Total Marks: 75 Marks**

**(Elective Paper)**

**Course Objectives:**

*Contemporary development literature clearly establishes that marginalized groups have unequal share of the opportunities that open up in the process of development. Within the 'deprivation layers' of caste, class and ethnicity, women bear the additional burden of their gendered location. In India, not only, gendered processes have a persistent regional dimension that continues to exist despite overall development; development itself can have adverse implications for women. Given this, the proposed course has the objective to provide an analysis of the location of women in processes of development and to understand the centrality of gender in each case; and to examine the theoretical and conceptual frameworks for the analysis, including an understanding of gender divisions and their interaction with other forms of inequality such as caste, class, race, and ethnicity and their spatiality.*

**Course Outcomes:**

*The course helps the researcher to reflect upon the linkages between the global economy and the gendered macro and micro processes of development; and also provides a basis for research, practical action, and policy formulation and for evaluating directions and strategies for social change.*

**Module I: Locating Gender in Development Process-I**

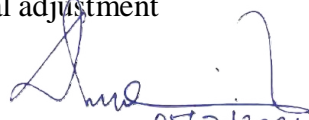
Theoretical framework – Classical and neo-classical theories of human capital formation, institutions and their feminist critique; gender theories- contextualizing patriarchy and its importance for understanding gender relations and their implication for development processes.

**Module II: Locating Gender in Development Process-II**

Conceptual shift in the women and development discourse from 'Women in Development' (WID) to 'Gender in Development' (GID) and 'Gender and Development' (GAD).

Feminist critique of gender perspective in the Indian Planning: from welfare to 'empowerment and women's agency approach.

Gender and structural adjustment

  
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29

  
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### Module: III Regional Dimension of Gender and Development

Access and control over resources and assets; the cross-cutting issues of caste and class and space; Spatial-temporal pattern; case studies

Social and Economic Aspects: Literacy/education;

Women and Economy: Gendered Division of labour- mural and extra-mural; Gendered livelihoods and poverty; workforce trends and implications for emerging regional patterns; caste/class/region overlap; Health: Gender biases in access and utilization of health including reproductive health and its consequences; Gender and political participation: national, state and local. Indigenous knowledge and gender development

### Module: IV Gender Planning

Gender development Indices; Government and bilateral policies/schemes; Gender budgeting; Institutionalizing gender concerns and gender empowerment in policies and interventions.

### Recommended Readings:

Agarwal, Bina. 1994a. *A field of one's own: gender and land rights in South Asia*. Cambridge University Press. Cambridge.

Boserup, Ester (1989). *Woman's Role in Economic Development*. Earthscan, London. 283 pp.

Bowlby, S., Lewis, J., McDowell, L. and Foord, J. (1989) 'The Geography of Gender', in Peet and Thrift (eds) *New Models in Geography 2*. Unwin Hyman

Coltrane, S. (1994). 'Theorizing Masculinities in Contemporary Social Science', in *Theorizing Masculinities*. H. Brod and M. Kaufman (eds.), pp. 39-60. Thousand Oaks: Sage.

Drèze Jean and A. Sen (2002) *India: Development and participation*, Delhi: Oxford University Press.

*Human Development in South Asia 2000: The Gender Question*, The Mahbub ul Haq Human Development Centre. Delhi, Oxford University Press, 2000, 219 p

Kabeer Naila 'Reversed Realities' Oxford University Press

Kapadia Karin (2002) *The Violence of Development: The Politics of Identity, Gender and Social Inequalities in India*, New Delhi: Kali for Women

Moser, Caroline O.N., "Gender planning in the Third World: Meeting practical and strategic needs", *World Development*, 17(11), 1989.

Nussbaum, M. & Glover, G. (1995). *Women, Culture and Development. A Study of Human Capabilities*. Oxford University Press.

Raju Saraswati (With Deipica Bagchi) *Women and Work in South Asia: Regional Patterns and Perspectives*, Routledge: London and New York.

---- et. al. (1999) *Atlas on Men and Women in India*, New Delhi: Kali for Women

Shiva, Vandana (1988). *Staying Alive. Women, Ecology and Development*. Zed Books, London. 224 pp.

Walby, S. (1990) *Theorizing Patriarchy*. Blackwell

## ECO(E)-735: Advanced Econometrics

**Credit: 04 (4 Lectures + 0 Tutorial + 0 Practical)**

**Total Credit Hour: 40 hours**

**Internal Assessment: 25 marks**

**Total Marks: 75 Marks**

**(Elective Paper)**

### OBJECTIVES:

*Econometrics has since the 1960s, been an ever-growing subject creating many specialised methods of model building and their empirical estimation. This syllabus brings some new methods of estimation for the students who have a strong quantitative background. The modules deal with the time-series analysis dealing with the growth and cyclical behaviour of economic variables.*

### OUTCOME:

*This paper is immensely useful for all students but especially those who are interested in undertaking research in Economics.*

### Module I: Model of an Economy and its Estimation

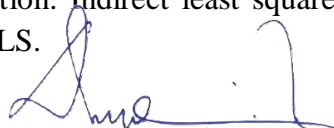
Formulation of a simple model of an economy and its estimation; distributed lag model. Problems in simultaneous equations model: bias, endogeneity, etc., and their solution, principal components analysis

### Module II: Qualitative Dependent Variable models

Dummy variable: Use, interpretation of coefficients and dummy variable trap, Qualitative dependent variable regressions: Linear probability model, LOGIT, PROBIT and TOBIT.

### Module- III: Simultaneous Equation Models and estimation

Simultaneous equations system, two-way linkage, OLS estimation and simultaneous equation bias, Structural form and reduced form; Identification, rules of identification, rank and order conditions; seemingly uncorrelated Regression equation (SUR model), Recursive system; Method of estimation: Indirect least squares (ILS) method, Instrument Variable method, 2SLS estimation and 3SLS.

  
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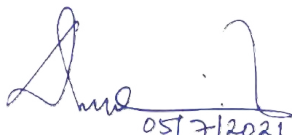
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## Module IV: Time Series Analysis

Time series – stationary and non-stationary; trend – deterministic and stochastic; Autoregression and Autocorrelation; Spectrum of a time series, Random walk, unit root tests, Cointegration: Vector Auto Regression and Granger Causality, Estimation using time series.

### Recommended Readings:

1. Nagar, A.L. and R. K. Das, *Basic Statistics*, Oxford University Press, New Delhi, 1993.
2. Gupta, S. C., *Fundamentals of Applied Statistics*, S.Chand and Sons, New Delhi, 1993.
3. Hadley, G, *Linear Algebra*, Addison-Weley publishers Company, Tokyo.
4. Vatssa, B.S., *Theory of Matrices*, Wily Eastern Limited, New Delhi, 1995
5. Gujarati, D.N. *Basic Econometrics*, McGraw Hill, New Delhi, 1995.
6. Koutsoyiannis, A., *Theory of Econometrics*, The MacMillan Press Ltd., London, 1977.
7. Johnston, J, *Econometric Methods*, McGraw Hill, Book Co., London, 1991.
8. Maddala, G.S., *Econometrics*, McGraw Hill, New York, 1999.
9. Salvatore, Dominick and Derrick Reagle, *Statistics and Econometrics*, Schaum's Outline Series, Tata McGraw-Hill Publishing Company Limited, New Delhi, 2005.
10. Stock, James H. and Mark W. Watson, *Introduction to Econometrics*, Pearson Education, 2004.
11. J. F. Wooldridge (2008): *Introductory Econometrics: A Modern Approach*, Third edition: South-Western Cengage Learning India
12. Green, W. H. (2009): *Econometric Analysis*, fifth edition, Pearson Publication
13. Johnson, R. A. and D.W. Wichern (2009): *Applied Multivariate Statistical Analysis*, Fifth edition, PHI learning Pvt. Ltd., New Delhi
14. Mills, T.C and R, N. Markellos (2008): *The Econometric Modeling of Financial Time Series*, third edition, Cambridge University Press
15. Patterson, Kerry (2002): *An Introduction to Applied Econometrics: A Time Series Approach*, Palgrave Macmillan
16. Enders, W (2004): *Applied Econometric Time Series*, Second edition, Wiley
17. Chatfield, Chris (2004): *The Analysis of Time Series: An Introduction*, sixth edition. Chapman and Hall/CRC New York



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