

केरल केंद्रीय विश्वविद्यालय

CENTRAL UNIVERSITY OF KERALA

(मंसद के अधिनियम, वर्ष 2009 द्वारा स्थापित | Established under the Act of Parliament in 2009)

No.CUK/ACA/AC Meeting /569/2018/

Dated, the 13th June, 2018

Minutes of the 3rd Meeting of the IIIrd Academic Council held on 1st June, 2018 at Conference Hall, Periye Campus

The Vice Chancellor welcomed all the members to the meeting. In his introductory remarks it was mentioned about the successful conduct of inauguration of the newly built Campus Buildings of the University by Hon'ble Vice President of India, Shri. Venkaiah Naidu along with other dignitaries on 29th April 2018. He stressed the urgent need to move to the permanent academic buildings. He also mentioned the sad state of affairs leading to the dismissal of 05 students from the Hostel and one student from the University due to their misbehaviour violating hostel and campus regulations stipulated by University.

The Vice Chancellor also announced that hereafter the monthly attendance of PG/UG Students will be send by the HoDs regularly to the Controller of Examinations.

Time table for exams should also be prepared in co-ordination with Controller of Examinations and in consistency with the Academic Calendar.

The Vice Chancellor expressed the need to avoid delay in conducting examinations/additional examinations.

He pointed out that it is imperative to hold external evaluation as a part of valuation.

3:03:01 Approval of the minutes of the last Academic Council-reg:

The Minutes of the last Academic Council (23.08.2017) was approved. Question was raised about the recognition of GIFT and MCC. It was replied that the Committee constituted for the purpose has not yet submitted the report. The Vice Chancellor has directed the committee to submit its report as early as possible.

3:03:02

Approval of the Action Taken Report- reg:-

The ATR of the last Academic Council Meeting decisions were approved.

Page 11

(i) Counting past Services for direct Recruitment and promotion for teacher Reg.

Detailed deliberation was made on the subject. A committee is constituted for the purpose with Prof.(Dr.) K.C. Baiju, Chairman, Prof. (Dr.) K. Jayaprasad, Dr. Mohammedunni Aliaz Musthafa, Dr. Amruth .G. Kumar, Dr. Joseph T.J and Shri. Jayakrishnan (AR Admn.). The report of the committee was considered by Academic Council

Decision:

3:03:03

The report of the committee has been approved. The members have pointed out that the experience of state funded research institutions and industry experiences may be counted. It has been resolved that this issue may be referred to the committee, which may consider the issue and submit the report to next Academic Council for its consideration.

3:03:04

Swachhata - Action Taken - Reg.

The committee has considered the matter and suggested committee to prepare Action Plan for 'Swachhata' immediately and submit to UGC. It was also suggested to propose credit based curricular activities for the students of CUK in 'Swachhata'.

3:03:05

Approval of BoS Meeting Minutes and revised syllabus for the Academic year 2018- reg:-

The Academic Council has approved the BoS Meeting Minutes and revised Syllabus of the following Departments with the following suggestions:

(i) Economics

Approved with 01 Elective as inter-disciplinary as insisted by the earlier Executive Council.

(ii) Law

Approved the restructuring of courses on LLM. NRI Law has been proposed for introduction as Diploma Course. The Vice Chancellor specially appreciated the effort of Dept. of Law in launching Diploma programmes.

(iii) Public Administration and Policy Studies

The Academic Council unanimously decided to change the existing interdisciplinary course entitled: Governance in Kerala: Innovations and Experiments (Course Code 425) with a new course "Rural Governance in Kerala". The Academic Council also approved the

syllabus of this course. It will take effective from 2018-19 session onwards.

The Academic Council also resolved to start Internship in the 3rd Semester of MA (PA&PS) from the academic year 2017-19 batch.

(iv) Dept. of Animal Science

The syllabus has been approved by the Academic Council.

The proposal of changing of name of Animal Science to Zoology has been approved. The new name will be effective from 2019-20 only. The suggestion for change of title will be placed before Executive Council for approval. In this connection it is also suggested that the Dept. of Plant Science and Biochemistry and Molecular Biology may submit their proposal for title rationalization.

(v) Social Work

Approved the syllabus and Open elective course (semester wise)

(vi) International Relations and Politics

The Academic Council approved the revised syllabus. The earlier electives of 30 numbers has been curtailed to 16 numbers. One inter disciplinary course on Human Rights was introduced and approved by the Academic Council.

(vii) Malayalam.

Approved the syllabus. One new paper introduced namely 'Translational Studies in Malayalam'. However, it was also decided to rename the elective paper of Malayalam as Translation Theory and Practice and in Linguistics Department as 'Machine Translation'. This will be made effective from 2018-19 batch onwards.

(viii) Yoga.

A committee with Dr. Rajendra Pilankatta, Dr. Subramanya Pailoof, Dr. Mohan A.K and Dr. K.C. Baiju has been formed to relook the syllabus for its implementation subject to ratification by next Academic Council.

3:03:06 Funds for study tour and field work evolving a policy -Reg.

The Departments like Geology, Social Work and few science departments syllabus continuously involve field visit also.

The budget availability for study tour is Rs. 5,00,000/- for 06 departments and amount sanctioned in budget is as follows:



Minutes of the 3rd Meeting of the IIIrd Academic Council held on 1rd June, 2018

CENTRAL UNIVERSITY OF KERALA

School of Economics Department of Economics

Minutes of the IInd Board of Studies of Department of Economics (PG Programme) held on 13th and 14th December 2017 Office Order No. CUK/ACA/BS/183/13/0969

IInd Board of Studies (PG Programme) of Department of Economics was held on 13th and 14th December 2017 in Conference Hall of the Central University of Kerala.

Members of the PG Board of Studies

Chairman

: Prof. (Dr.) K.C.Baiju.

Head, Dept. of Economics, Central University of Kerala.

Subject Experts

: Prof. (Dr.) S.Harikumar,

Head, Dept. of Economics, CUSAT, Cochin, Kerala.

Prof. (Dr.) Vishwanatha.

Chairman, Dept. of Economics, Mangalore University, Mangalore.

Karnataka.

Prof.(Dr.) J.A.Arul Chellkumar.

Chairman. School of Economics and **Financial** Studies.

Bharathidasan University, Tamil Nadu.

Dr. Manju S Nair,

Associate Professor, Dept. of Economics, University of Kerala.

Trivandrum, Kerala.

Members of Faculty : Dr. P. Abdul Kareem.

Associate Professor, Dept. of Economics, Central University of Kerala.

Dr. Syam Prasad,

Assistant Professor, Dept. of Economics, Central University of Kerala

The members of the board of studies deliberated the matters involved in the course structure of the proposed syllabus, the same has been compared with the present syllabus (implemented form 2015-16 onwards), and the following outcomes have been materialized from their deliberations. First, it was decided that 13 papers will be offered as Core Courses similar to Mathematics for Economic Analysis, Statistics for Economic the present

Prof. (Dr.) K.C.Baiju

Prof. (Dr.) S. Harikumar

Prof. (Dr.) Vishwanatha

Prof.(Dr.) J.A. Arul Chellkumar

Dr. Manju S Nair

Dr. P. Abdul Kareem Dr. Syang

Analysis and Indian Economy were introduced as a replacement for Mathematics for Economic Analysis I & II, StatiStics for Economic Analysis I & II and Indian Economy I & II. Further, Economics of Growth and Development, Regional Economics, Public Finance and Research Methodology were incorporated into the list of Core Courses and the final list of recommended Core Courses as follows:

Course Code	Courses	Credits
	Semester - I	
EEC 5101	Microeconomic Theory I	4
EEC 5102	Macroeconomic Theory I	4
EEC 5103	Mathematics for Economic Analysis	4
EEC 5104	Economics of Growth and Development	4
EEC 5105	Indian Economy	4
	Semester - II	
EEC 5201	Microeconomic Theory II	4
EEC 5202	Macroeconomic Theory II	4
EEC 5203	Statistics for Economic Analysis	4
EEC 5204	International Economics: Theory and Policy	4
EEC 5205	Regional Economics	4
	Semester - III	
EEC 5301	Econometrics: Theory and Applications	4
EEC 5302	Public Economics	4
EEC 5303	Research Methodology	4
EEC 50	Elective I	4
EEC 50-	Elective II	3
	Semester - IV	
EEC 5401	Dissertation	6
EEC 50	Elective III	4
EEC 50	Elective IV	3
	Total Credits	72

Second, the members of the board of studies rationalized the syllabus in terms of expurgated overlapping of subject content with in the module, between the module and among the core as well as elective papers. In addition, the content of the proposed courses were validated in according to the parameters of the NIRF criteria. The Core Course syllabus is approved by the Board of Studies as appended. The detailed syllabus of the elective courses proposed is to be approved by the Board of Studies. Then the compiled syllabus (Core and Electives) has to be placed in the forthcoming Academic Council of the Central University of the

Kerala for appro

Prof. (Dr.) K.C.Baiju

Prof. (Dr.) 8. Harikumar

Prof. (Dr.) Vishwanatha

Prof.(Dr.) J.A.Arul Chellkumar

21000

Dr. Manju S Nair Dr. P. Abdul Kareem

Dr. Syam Prasad



Elective courses offered shall be on the basis of availability of faculty specialization, workload, infrastructure and the logistics at the disposal of the department. Students will have to do at least one elective course as mandatory from other departments. While the elective courses selected and offered by the Department of Economics, special care may be taken to confine it with those departments having the reinforcing leverages to the students (Environmental Science, Geology. Public Administration, International Relations and Social Works) in their academic arena especially awareness building, ability to assess the relationship between their subject and electives and employability in a composite approach.

. Tourism Economics, Economics of Infrastructure, Economics of Insurance and India in the Global Economy are the new additions in the elective courses. Finalized 4 credits and 3 credits elective courses are as follows:

ELECTIVES COURSES

Elective with 4 credits

- 1. Industrial Economics
- 2. Advanced Econometrics
- 3. Agricultural Economics
- 4. Health Economics
- 5. Labour Economics
- 6. Environmental Economics
- 7. Financial Economics
- 8. Institutional Economics
- 9. Tourism Economics
- 10. Public-Private Partnership and Infrastructure

Elective with 3 credits

- 1. Monetary Economics
- 2. Population and Development
- 3. International Political Economy
- 4. Gender and Development
- 5. Economics of Education
- 6. India in the Global Economy
- 7. Economics of Infrastructure
- 8. Finance and Capital Market
- 9. Decentralization and Development
- 10. Economic Thoughts
- 11. Welfare Economics
- 12. Economics of Insurance

Prof. (Dr.) K.C.Baiju

Prof. (Dr.) S.Harikumar

Prof. (Dr.) Vishwanatha

Prof.(Dr.) J.A.Arul Chellkumar

Dr. Manju S Nair Dr. P. Abdul Kareem

Dr. Syan Prasad



3

Signature of the Board of Studies Chairman and Members

SI. No.	Details	Details Name		Signature	
1.	Head, Dept. of Economics, CUK.	Prof. (Dr.) K.C.Baiju	Chair Person	himitox	
2.	Subject Experts	Prof. (Dr.) S.Harikumar, Head, Dept. of Economics, CUSAT, Cochin, Kerala.	Members	Bojumi	
		Prof. (Dr.) Vishwanatha, Chairman, Dept. of Economics, Mangalore University, Mangalore, Karnataka	Members	Vilma	
		Prof.(Dr.) J.A.Arul Chellkumar, Chairman, School of Economics and Financial Studies, Bharathidasan University, Tiruchirappalli, Tamil Nadu.	Members	12 realle	
		Dr. Manju S Nair, Associate Professor, Dept. of Economics, University of Kerala, Trivandrum, Kerala.	Members	Mind	
3.	Faculty Member	Dr. P. Abdul Kareem, Associate Professor, Dept. of Economics, Central University of Kerala.	Members	TM.	
	75	Dr. Syam Prasad, Assistant Professor, Dept. of Economics, Central University of Kerala	Members	2	

Date: 14/12/2017

Place: Periya, Kasaragod.



केरल केंद्रीय विश्वविद्यालय

CENTRAL UNIVERSITY OF KERALA

(मंसद के अधिनियम, वर्ष 2009 द्वारा स्थापित 1 Established under the Act of Parliament in 2009) No.CUK/ACA/AC Meeting /569/2018/ Dated, the 13" June, 2018

Minutes of the 3rd Meeting of the IIIrd Academic Council held on 1st June, 2018 at Conference Hall, Periye Campus

The Vice Chancellor welcomed all the members to the meeting. In his introductory remarks it was mentioned about the successful conduct of inauguration of the newly built Campus Buildings of the University by Hon'ble Vice President of India, Shri. Venkaiah Naidu along with other dignitaries on 29th April 2018. He stressed the urgent need to move to the permanent academic buildings. He also mentioned the sad state of affairs leading to the dismissal of 05 students from the Hostel and one student from the University due to their misbehaviour violating hostel and campus regulations stipulated by University.

The Vice Chancellor also announced that hereafter the monthly attendance of PG/UG Students will be send by the HoDs regularly to the Controller of Examinations.

Time table for exams should also be prepared in co-ordination with Controller of Examinations and in consistency with the Academic Calendar.

The Vice Chancellor expressed the need to avoid delay in conducting examinations/additional examinations.

He pointed out that it is imperative to hold external evaluation as a part of valuation.

Approval of the minutes of the last Academic Council-reg: 3:03:01

The Minutes of the last Academic Council (23.08.2017) was approved. Question was raised about the recognition of GIFT and MCC. It was replied that the Committee constituted for the purpose has not yet submitted the report. The Vice Chancellor has directed the committee to submit its report as early as possible.

3:03:02

Approval of the Action Taken Report- reg:-

The ATR of the last Academic Council Meeting decisions were approved.

(i) Counting past Services for direct Recruitment and promotion for teacher Reg.

Detailed deliberation was made on the subject. A committee is constituted for the purpose with Prof.(Dr.) K.C. Baiju, Chairman, Prof. (Dr.) K. Jayaprasad, Dr. Mohammedunni Aliaz Musthafa, Dr. Amruth .G. Kumar, Dr. Joseph T.J and Shri. Jayakrishnan (AR Admn.). The report of the committee was considered by Academic Council

Decision:

3:03:03

The report of the committee has been approved. The members have pointed out that the experience of state funded research institutions and industry experiences may be counted. It has been resolved that this issue may be referred to the committee, which may consider the issue and submit the report to next Academic Council for its consideration.

3:03:04

Swachhata - Action Taken - Reg.

The committee has considered the matter and suggested committee to prepare Action Plan for 'Swachhata' immediately and submit to UGC. It was also suggested to propose credit based curricular activities for the students of CUK in 'Swachhata'.

3:03:05 Approval of BoS Meeting Minutes and revised syllabus for the Academic year 2018-reg:-

The Academic Council has approved the BoS Meeting Minutes and revised Syllabus of the following Departments with the following suggestions:

- (i) Economics
 - Approved with 01 Elective as inter-disciplinary as insisted by the earlier Executive Council.
- (ii) Law

Approved the restructuring of courses on LLM. NRI Law has been proposed for introduction as Diploma Course. The Vice Chancellor specially appreciated the effort of Dept. of Law in launching Diploma programmes.

(iii) Public Administration and Policy Studies

The Academic Council unanimously decided to change the existing interdisciplinary course entitled: Governance in Kerala: Innovations and Experiments (Course Code 425) with a new course "Rural Governance in Kerala". The Academic Council also approved the

Page $|2\rangle$ Minutes of the 3° Meeting of the IIIrd Academic Council held on 1^6 June. 2018



Central University of Kerala Department of Economics School of Economics

Ph.D. Programme: Economics

Syllabus w.e.f 2019-'20

Programme Name: Ph.D. Economics
Programme Code: EEC07

Programme Outcome

After successful completion of Ph.D. Programme in the department of economics, doctoral students will be able to:

- PO 1: Critical thinking: Take informed decisions appreciating various dimensions of the situation under consideration.
- PO 2: Effective Communication: Speak, read, and write in English
- PO 3: Effective Citizenship and ethics: Demonstrate empathetic social concern and equity centred national development, and the ability to act with an informed awareness of issues and participate in civic life through volunteering
- PO 4: Environment and Sustainability: Understand the issues of environmental contexts and sustainable development
- PO 5: Assess socio-economic issues with appropriate statistical and research tools and suggest suitable remedial measures.
- PO 6: Undertake responsibilities such project assessments and cost benefit analysis

PROGRAMME SPECIFIC OUTCOME

- PSO 1: awareness of and sensitivity to local, national and global problems related to deprivation, socio- political issues, gender, environment, and discriminatory and exclusionary practices.
 - PSO 2: Incorporated Self-directed and Life-long Learning
- PSO 3: Develop an ability to apply knowledge acquired in problem solving
- POS 4: Understand the behavior of Indian and World economy
- POS 5: Analyse various policies including fiscal and monetary policies of government
- POS 6: Determine economic variables including inflation, unemployment, poverty, GDP, Balance of Payments using statistical and econometric methods
- POS 7: Understand the behaviour of financial and money markets and perform costbenefit analysis for making investment decisions
- POS 8: Link daily developments in the economy with existing insights in economics

Central University of Kerala

Department of Economics, School of Economics

Ph.D. (Economics)

Structure for Ph.D. Course Work in Economics

Course Code	Courses	Credits	Lecture Hours per week	Tutorial Hours per week
EEC7101	Research Methodology	4	4	2
EEC7102	Macroeconomic Theory I	4	4	2
EEC7003		4	4	2
EEC7004		4	4	2
Total Credits 72				

Course Code	EEC 7101	Semester	I
Course Title	Research Methodology		
Credits	4	Туре	Core

Course Description

The course provides the advanced research methodology which required for doctoral research students. It covers fundamentals of scientific research, philosophy of scientific research, research designs for qualitative, quantitative and mixed methods. Further, it provides sampling techniques, scaling techniques, methods of observation and testing of hypothesis. Final segment of this course offers research proposal and report writing strategies.

Course Outcome

By the end of the course, students are expected to be able to:

- Clarity about fundamentals of methodology of economic research.
- help the student to select comprehensive research approach and frame research design, observation tools and enable them to do analyses, interpretation and report writing.

Course Structure

Module - I: Fundamentals of Scientific Research

- 1. Introduction to Research: Meaning, Stages in the Research Process
- 2. Scientific Methods of Research: Popper, Lakatos, Friedman, Kuhn and McCloskey
- 3. Epistemology, Ontology and the Methodology of Science.
- 4. Approaches to Research: Quantitative, Qualitative and Mixed
- 5. Research Questions and Hypotheses: Meaning, Types and Sources, Theory and Scientific Law, Steps in Testing of Hypothesis
- Types of Research Survey Research Longitudinal Research Exploratory Research Experimental Research Case Study Research Participatory Rural Appraisal and Evaluation Research

Module - II: Modes of Observation and Scaling Techniques

- 1. Primary Data: Questionnaire, Interview Schedules, Interview Survey, Postal Survey, Online Survey and Case Study method.
- 2. Secondary Data: Types, Sources and Selection Criteria
- 3. Scaling Techniques: Different types of Scaling Techniques (Thurstone and Likert)

Module - III: Research Design and Thesis Writing

1. Research Design: Need, Features, Important Concepts of Research Design

- 2. Review of Literature and Theory: Selection, Collection, Review of Literature Writing and Developing a Theoretical Framework
- 3. Developing Research Proposal and Writing Thesis Mechanics of Thesis Writing.

Module - IV Processing and Analysis of Data

- Quantifying Data Coding Classification and Tabulation Descriptive Statistical Measures Averages, Dispersion, Correlation and Regression - Analysis of Time Series - Association of Attributes (Simple problems)
- 2. Analyzing Qualitative Data Scaling Techniques Issues in Scaling Thurston-Likert

Module - V Quantitative Techniques and Computer Applications

- 1. Univariate Inferences Point and interval estimation.
- 2. Large sample z test (Simple problems)
- 3. Small Sample test t, F and χ^2 Assumptions, Properties & Uses (Simple problems).
- 4. Multivariate Techniques Factor Analysis Path Analysis Multiple Regressions Discriminant Function Analysis.
- 5. Introduction to Computer-Computer Applications in Economics Statistical Package SPSS.

Testing & Evaluation

Internal Evaluation consisting of Seminar, Group discussions, Assignment, Mid-term exam and final end semester examination.

References:

- Babbie, Earl. R. 2013. "The Practice of Social Research." Cengage Learning, Canada.
- Blaug, Mark. 1994. "The Methodology of Economics." Cambridge University Press, Cambridge.
- Daniel M. Hausman. 2007. "The Philosophy of Economics: An Anthology." Cambridge University Press, Cambridge.
- Goode J. William and Hatt K. Paul. 1952. "Methods in Social Research." McGraw-Hill Publishers, New York.
- Gupta, Santosh. 2003. "Research Methodology and Statistical Techniques." Deep and Deep Publications, New Delhi.
- John W. Creswell. 2014. "Research Design: Qualitative, Quantitative and Mixed Methods Approaches." Sage Publication, Washington, USA.
- Kate L. Turabian. 2006. "A Manual for Writers of Term papers, Theses and Dissertations." The University of Chicago press, Chicago.

- Laljain, Gobal. 1998. "Research Methodology: Methods Tools and Techniques." Mangal Deep Publications, Jaipur.
- Misra R.P. 1988. "Research Methodology: A Hand Book." Concept publishers, New Delhi.
- Mukherjee Neela. 1997. "Participatory Rural Appraisal and Methodology and Applications (Studies in Rural participation-1)." Concept Publishing Company, New Delhi.
- Mukherji, Partha Nath. 2000. "Methodology in Social Research." Sage Publication, New Delhi.
- Sankar.U., and Lakshmanasamy.T. 1993. "Methodology of Applied Economic Research."
 Sterling Publishers, New Delhi.
- Thakur, Devendra. 2003. "Research Methodology in Social Science." Deep and Deep Publications, New Delhi.
- Wilkinson, Bhandarkar. 2003. "Methodology and Techniques of Social Research." Himalaya Publishing House, Bombay.
- Young, Pauline V. 1994. "Scientific Social Survey Surveys and Research." New Delhi, Prentice Hall of India Private Limited.

Course Code	EEC 7103	Semester	I
Course Title	Core Area of Research: Climate Change and Agriculture (Information, Institutions and Climate Change Adaptation in Agriculture)		
Credits	4	Туре	Core

Course Description

The course provides the components of climate change and agriculture and their inter-linkages. It includes information, institution and climate change, agricultural information system, climate change adoption in agriculture, climate change and sustainable agriculture.

Course Outcome

By the end of the course, students are expected to be able to:

- > to make the students enable to approach the research topic by enrich in relevant theories and concepts.
- > Student will be equipped with fundamentals of economics of information, institutions and their role.
- Student will be equipped with climate change adaptation in agriculture, and their inter-linkages.

Course Structure

Module I: Introduction - Information, Institutions and Climate Change

- 1. Information economics of information, agricultural information and recent trend
- 2. Institutions dimensions and functions, institutions in agricultural
- 3. Climate Change meaning, trend, agreements, consequences, impact on agriculture

Module - II: Agricultural Information and Institutions

- 1. Types of agricultural information, sources of information and role of ICT
- 2. Agricultural information dissemination framework in India and various states
- 3. Interaction between information dissemination institutions over the period
- 4. Status of information access among the farmers, current status and impediments

Module - III: Climate Change and Agriculture

- 1. On-site and off-site environmental problems in agriculture
- 2. Drivers of resource degradation
- 3. Impact of Climate change on agriculture in India and various states
- 4. Sustainable water management in agricultural sector

Module - IV: Climate Change Adaptation in Agriculture

- 1. Need of climate change adaptation in agriculture and sustainability issues
- 2. Role of information and institutions in climate change adaptation in agriculture
- 3. Climate change adaption in agriculture and their impact in output

Module - V: Green Technology and Sustainable Agriculture

- 1. Green Technology Meaning, need, development and adaptation in agriculture
- 2. Sustainable Agriculture Trend of climate change adaptive sustainable agriculture, green technology and sustainable agriculture
- 3. Polices and other initiatives of climate change adaptation, green technology and sustainable agriculture

Testing & Evaluation

Internal Evaluation consisting of Seminar, Group discussions, Assignment, Mid-term exam and final end semester examination.

Reference

Module - I: Introduction - Information, Institutions and Climate Change

- George J. Stigler. 1961. "The Economics of Information." *Journal of Political Economy*, Vol. 69 (3): 213 225.
- Michael K Buckland. 1991. "Information as Thing." *Journal of the American Society for Information Science*, Vol. 45(5): 351-360.
- Karl-Gustaf Löfgren, Torsten Persson and Jörgen W. Weibull. 2002. "Markets with Asymmetric Information: The Contributions of George Akerlof, Michael Spence and Joseph Stiglitz." *The Scandinavian Journal of Economics*, Vol. 104(2): 195-211.
- George A. Akerlog. 1970. "The Market for "Lemons": Quality Uncertainty and the Market Mechanism." Quarterly Journal of Economics, Vol.84(3):488-500.
- North D. 1991. "Institutions." The Journal of Economic Literature, Vol.5(1): 97-112.

Module - II: Agricultural Information and Institutions

- Adhiguru P., P.S.Birthal and B.Ganesh Kumar. 2009. "Strengthening Pluralistic Agricultural Information Delivery Systems in India." *Agricultural Economic Research Review*, Vol. 22: 71-79.
- Eisgruber L. M. 1967. "Micro-and Macro-Analytic Potential of Agricultural Information Systems." Journal of Farm Economics, Vol. 49(5): 1541 – 1552.
- Reddy Eswara D.B. 1987. "Agricultural Information Transfer in India." *Information Development,* Vol. 3(3): 167-170.
- Sreenivasulu V. and H.B. Nandwana. (2001) "Networking of Agricultural Information Systems and Services in India." *INSPEL*, Vol. 35(4): 226 235.

- Ballantyne Peter. 2009. "Accessing, Sharing and Communicating Agricultural Information for Development: Emerging Trends and Issues." *Information Development*, Vol. 25(4): 260-271.
- Vaidyanathan A. (2010). "Agricultural Growth in India: Role of Technology, Incentives, and Institutions." Oxford University Press, New Delhi, India.

Module - III: Climate Change and Agriculture

- Richard M. Adams. 1989. "Global Climate Change and Agriculture: An Economic Perspective." *American Journal of Agricultural Economics*, Vol. 71(5): 1272-1279.
- Richard M. Adams, Brian H. Hurd, Stephanie Lenhart, and Neil Leary. 1998. "Effects of Global Climate Change on Agriculture: An Interpretative Review." Climate Research, Vol. 11: 19-30.
- Palanisami K., Kakumanu K.R., Nagothu U.S., and Ranganathan C.R.2019. "Climate Change and Agriculture in India." In: Climate Change and Future Rice Production India. India Studies in Business and Economics. *Springer*, Singapore.
- Palanisami K., Ranganathan C.R., Udaya Sekhar Nagothu, and Krishna Reddy Kakumanu. 2014. "Climate Change and Agriculture in India: Studies from Selected River Basins." Routledge-Taylor and Francis Group, New Delhi.
- Kavi Kumar K.S., and Jyoti Parikh. 2001. "Indian Agriculture and Climate Sensitivity." *Global Environmental Change,* Vol. 11 (2): 147 154.
- Kavi Kumar K.S. 2007. "Climate Change Studies in Indian Agriculture." *Economic and Political Weekly*, Vol. 42 (45/46): 13 15.

Module - IV: Climate Change Adaptation in Agriculture

- <u>Ariel Dinar, Robert Mendelsohn, Robert Evenson, Jyoti Parikh, Apurva Sanghi, Kavi Kumar, James McKinsey</u> and <u>Stephen Lonergan</u>. 1998. "Measuring the Impact of Climate Change on Indian Agriculture." *World Bank Technical Paper*, World Bank.
- Kurukulasuriya Pradeep and Shane Rosenthal. 2003. "Climate Change and Agriculture: A Review of Impact and Adaptations." *The World Bank,* Washington.
- Jeetendra Prakash_Aryal, M.L._Jat, Tek B._Sapkota, Arun_Khatri-Chhetri, Menale_Kassie, Dil Bahadur_Rahut, and Sofina_Maharjan. "Adoption of Multiple Climate-Smart Agriculture Practices in Gangetic Plains of Bihar, India." *International Journal of Climate Change Strategies and Management*, Vol. 10(3): 407-427.
- Mall R.K., Akhilesh Gupta, Ranjeet Singh, R. S. Singh and L. S. Rathore. 2006. "Water Resources and Climate Change: An Indian Perspectives." *Current Science*, Vol. 90(12): 1610 26.

Module - V: Green Technology and Sustainable Agriculture

- John P. Reganold, Robert I. Papendick and James F. Parr. 1990. "Sustainable Agriculture." *Scientific American*, Vol. 262 (6): 112-121.
- Abrol I. P, . and Sunita Sangar. 2006. "Sustaining Indian Agriculture Conservation Agriculture the Way forward." *Current Science*, Vol. 91 (8): 1020 1025.

- Borch Kristian. 2007. "Emerging Technologies in Favour of Sustainable Agriculture." *Futures*, Vol. 39(9): 1045-1066.
- <u>Ghadiyali, T. R.</u>; <u>Kayasth, M. M.</u> 2012. "Contribution of Green Technology in Sustainable Development of Agricultural Sector." *Journal of Environmental Research and Development,* Vol. 7 (1A): 590 596.
- David R. Lee. 2005. "Agricultural Sustainability and Technology Adoption: Issues and Policies for Developing Countries." American Journal of Agricultural Economics, Vol. 87 (5): 1325-1334.
- Peter Arellanes and David R. Lee. 2003. "The Determinants of Adoption of Sustainable Agriculture Technologies: Evidence from the Hillsides of Honduras." Proceedings of the 25th International Conference of Agricultural Economists (IAAE), 16. 22 August 2003, ISBN Number: 0-958-46098-1 Durban, South Africa.

Course Code	EEC 7104	Semester	Ι
Course Title	Research Proposal and Review of Literature		
Credits	6	Туре	Core

Course Description

The course provides the components of research proposal writing and literature survey and review. It covers identification of research problem, review of literature and to understand the review of literature and framing the sample selection and observation techniques. In addition, it gives the learning about analytical, conceptual and theoretical framework of the study and make useful blueprint for the proposed research topic.

Course Outcome

By the end of the course, students are expected to be able to:

- > Student will clear understanding about the components of research proposal and writing.
- > Student will be equipped with collection, classification and reviewing the past studies.
- It will help the student to understand the construction of conceptual, theoretical and analytical framework.

Course Structure

Module I: Introduction

Identification of research area - Justification for Problem Selection - Statement of Research Problem - Research Issues and Question - Rational of the Study - Chapter Scheme.

Module II: Review of Literature and Research Gap

Literature Survey - Stratification and Ordering - Critical Review and Presentation - Identification of Research Gap and corroboration with issues and questions - Construction of Objectives and Hypotheses - Primary and Secondary Data Requirement - Sampling Selection and Data Collection Techniques.

Module III: Conceptual and Analytical Framework

Defining the Concepts - Primary Analyses - Statistical and Econometric Techniques Proposed for Testing of Hypotheses - Details about Application of Statistical Packages.

Module IV: Theoretical Framework

Theoretical Framework: Selection - Justification - Corroboration and Gap.

Module V: Research Design

Preparation of Draft Research Proposal: Introduction and Statement of the Problem - Research Issues and Questions - Need for the Study - Research Gap - Objectives - Hypotheses - Materials and Methods - Conceptual and Analytical Framework - Limitations and Delimitations - Chapter Scheme - Use of Citation Model.

Testing & Evaluation

Final end semester examination.

References

- 1. Babbie, Earl. R. 2013. "The Practice of Social Research." Cengage Learning, Canada.
- 2. John W. Creswell. 2014. "Research Design: Qualitative, Quantitative and Mixed Methods Approaches." Sage Publication, Washington, USA.
- 3. Goode J. William and Hatt K. Paul. 1952. "Methods in Social Research." McGraw-Hill Publishers, New York.
- 4. Kate L. Turabian. 2006. "A Manual for Writers of Term papers, Theses and Dissertations." The University of Chicago press, Chicago.
- 5. Blaug, Mark. 1994. "The Methodology of Economics." Cambridge University Press, Cambridge.
- 6. Daniel M. Hausman. 2007. "The Philosophy of Economics: An Anthology." Cambridge University Press, Cambridge.