



# CENTRAL UNIVERSITY OF RAJASTHAN



## DEPARTMENT OF ECONOMICS

Presents Certificate Course  
**Economic Analytics**

Interested Candidates may Apply up to : **10 July, 2024**

Registration Link

<https://curajadm.samarth.edu.in/index.php/site/index>

## ABOUT DEPARTMENT

The Department focuses on theoretical and quantitative analysis in its curriculum. The main objective of the master programme is to equip the students with theories and tools of economic analysis in major areas of its application. The Department aims to enable the students to understand the principles, theories, and applications of Economics.

### FACULTIES :-

- DR. HEMLATA MANGLANI
- DR. PRAGATI JAIN
- DR. SATYANARAYANAMURTY DOGGA
- DR. SURESH KUMAR PATRA

### CONTACT US:

- +91 99824 41665
- [www.curaj.ac.in](http://www.curaj.ac.in)
- [hod.eco@curaj.ac.in](mailto:hod.eco@curaj.ac.in)



## ABOUT UNIVERSITY

The Central University of Rajasthan (CURaj) has been established by an Act of Parliament (Act No. 25 of 2009) as a new Central University and is fully funded by the Government of India. The President of India, Her Excellency Smt. Droupadi Murmu, is the Visitor of the CURaj. This University was established with the aspiration to be one of India's most dynamic and vibrant universities in order to impart cutting-edge education to all the learner communities. The University is fully funded by the Government of India that provides quality education to all, especially those coming from humble socio-economic background and seeking quality education. CURaj is located in the Ajmer district of Rajasthan. In order to meet the challenges of the knowledge era and to keep pace with the knowledge explosion in Higher Education, the Central University of Rajasthan is committed to inculcating and sustaining quality in all dimensions of Higher Education viz. teaching, learning, research, extension, and governance while catering to the regional and global needs. CURaj offers 53 Integrated and PG Programmes along with Ph.D. Programmes in its 32 Departments. The University operates from its permanent campus of 518 acres and it has adequate hostels housing nearly 4000 students in the campus.

### Vision:-

Sustainable Development through Excellence in Education, Innovation, and Performative Societal Change.

### Mission:-

1. To create and sustain an inclusive environment that inspires students to undertake an intellectually challenging, socially engaging, and transformative learning experience.
2. To develop an ecosystem for research and innovation wherein individual potential can be harnessed to provide sustainable solutions for global concerns.
3. To impart value-based holistic education and develop resilient and skilled human resources that contributes to nation building.

# PROGRAM

Duration of the course: 6 Months (The course required six month duration to apply theory on hands on practice and through analytical software. The curriculum and course content requires completing 15 hours (theory cum practice) for each module.)

## COURSE STRUCTURE :-

### Module 1: Research Methods (15 hours)

Research design, research hypothesis, hypothesis testing- parametric and non-parametric tests, methods of data collection, and scaling methods. Research Paper Writing, and Use of Mendeley software (citations, references, and bibliography styles.). Blue properties of OLS estimators, introduction to Multiple Linear regression model. Hands-on exercises on SPSS, STATA, E-views, R-software, etc.

### Module 2: Time-Series Analysis (15 hours)

Time-series forecasting. Models such as AR, MA, ARIMA, VAR, ARCH, GARCH, and ARDL. Tests such as Granger Causality, non-causality, and Johansen Co-integration. Hands-on exercises on SPSS, STATA, E-views, R-software, etc.

### Module 3: Panel Data Analysis (15 hours)

Pooled OLS (POLS), Fixed Effects (FE), Random Effects (RE), Feasible Generalized Least Square Method (FGLS), Panel-corrected Standard Error (PCSE), Poisson Pseudo Maximum Likelihood (PPML). Panel unit-root tests, GMM methods, dynamic linear Panel data models Different Specification tests- Hausman test, BP-LM test, Wald test, etc. Different diagnostic tests for problems like heteroscedasticity, autocorrelation, multicollinearity, cross-sectional dependency, and more. Hands-on exercises on SPSS, STATA, E-views, R-software, etc.

### Module 4: Aggregation and Indexing

#### Methods (15 hours):

Principal Component Analysis (PCA), Factor Analysis, Multiple Correspondence Analysis, Treatment effects, Difference in difference. Hands-on exercises on SPSS, STATA, E-views, R-software, etc.

# ELIGIBILITY

The candidate seeking admission to the Career Oriented Certificate course must hold a Graduate Degree from a recognized University with Economics as one of the subjects.

- The candidate of the Unreserved or OBC category must have secured at least 50% marks in Graduation.
- The candidate of SC and ST category must have secured at least 45% marks in Graduation

## COURSE FEE:

- The Program will run as a Certificate Course as prescribed under the Certificate Courses of the Central University of Rajasthan.
- The special course fee per semester shall be Rs. 10,000/- which shall be deposited in one installment at the time of provisional admission.

# ADMISSION PROCEDURES

- Admission to Career Oriented Certificate Program shall be made in order of merit.
- The merit will be created on the basis of past academic records and as follows:

| COURSE :     | 60% and above | Between 45% & 60% | Less than 45% |
|--------------|---------------|-------------------|---------------|
| Intermediate | 25            | 15                | 10            |
| High School  | 25            | 15                | 10            |
| Graduation   | 25            | 15                | 10            |

## Course Outcome:-

Course Title : Economic Analytics | Course code : CECO401  
Credits: 04 | Total Marks-100 ( 60 of EoSE + 40 of Internal ).

- Learning Objectives and Outcomes:  
After successfully completing this course the students are expected :
  1. To understand the fundamentals of research.
  2. To logically understand the economic theories.
  3. To analyze and interpret economic data
  4. To demonstrate an ability to develop econometric models and concepts, and to carry out estimation, testing with analytical software.
  5. To conduct independent research and write a good quality research paper using econometric methods and analytical tools.

### Attendance Rules:

75% attendance will be compulsory for students appearing final exam for the certificate course.

## RESOURCE PERSONS:

- Prof. Ranjan Aneja, Central University of Haryana
- Prof. Hansa Jain, Mahatma Gandhi Kashi Vidyapith, Varanasi
- Prof. Jitendra Kumar, Central University of Rajasthan
- Prof. Uma Shankar Mishra, Central University of Rajasthan
- Prof. C.R. Bishnoi, IIS University, Jaipur
- Dr. Anurag Asawa, Gokhale Institute of Political and Economics
- Dr. Hemlata Manglani, Central University of Rajasthan
- Dr. Pragati Jain, Central University of Rajasthan
- Dr. Satyanarayanamurty Dogga, Central University of Rajasthan
- Dr. Suresh Kumar Patra, Central University of Rajasthan
- Dr. Sanjay Kumar Garg, Central University of Rajasthan
- Dr. Jaya Kritika Ojha, Central University of Rajasthan
- Dr. Deepesh Bhati, Central University of Rajasthan

