SRI DEV SUMAN UTTARAKHAND UNIVERSITY BADSHAITHAUL (TEHRI GARHWAL)



STRUCTURE OF UNDER GRADUATE PROGRAMMES VOCATIONAL/SKILL DEVELOPMENT COURSE IN ECONOMICS (DATA ANALYSIS)

FOR

SESSION: 2023-2024

DEPARTMENT OF ECONOMICS

PDT.L.M.S.SRI DEV SUMAN UTTARAKHAND UNIVERSITY,

CAMPUS RISHIKESH

SRI DEV SUMAN UTTARAKHAND UNIVERSITY

Badshahithaul, Tehri Garhwal (Uttarakhand)

Members of Board of Studies Economics

| S. | Name of the | Designation | Nominated | Signature |
|----|---|--|-----------|-----------|
| N. | Members | | As | , |
| 1. | Dr. D.C. Goswami | Professor, Head & Dean of Arts | Chairman | |
| 2. | Dr.Pushpanjali Arya | Professor,& Head Department of Economics | Member | Parp |
| 3. | Dr. Ashok Kumar | Assistant Professor Department of Economics | Member | Mul |
| 4. | Dr. Rajendra P. Mamgain | Professor, Head Dept. of Economics, Doon University, Dehradun | Member | |
| 5. | Prof. Janki Panwar | Principal G.P.G.C.Kotdwar | Member | Land |
| 6. | Prof.Lovely Rajvanshi | Principal G.P.G.C.Jaiharikhal | Member | |
| 7. | Prof. K.L. Talwar | Principal G.D.C. Chakrata | Member | DE-8 |
| 8. | Nedesak, Uttarakhand Bhasa Sansthan | Nedesak Rajpur Road, Dehradun | Member | |

| Vocational Course-01 | | | | | |
|--|--|----------|--------------------------|-----------------|--|
| Programme: Certificate Course in Economics | | | Year : First | Semester-I | |
| | | | | Paper- I VC | |
| Subject: | Subject : Economics | | | | |
| Course C | Course Code: ECOVC -01 Course Title: DATA Al | | | NALYSIS-I | |
| Course o | Course outcome: | | | | |
| | ng knowledge and understanding of co | ollectio | n and presentation of d | ata for drawing | |
| | l inferences. | | | | |
| | roduce the students the important data | | | | |
| 3. To tra | in the students in the use of free statist | ical so | ftware to analyse data. | | |
| Credit: | | | | | |
| | Credit: 3 (Three) Elective Maximum marks: 25+75 Minimum Passing Marks: 33 | | | \ | |
| Total no. of lectures-tutorials-practical(labour per week):3-0-0 | | | | , | |
| Unit | Topic | | | No. of | |
| | Topic | | | lectures | |
| Unit 1 | 1 Statistics: Meaning, Definitions, Scope, Importance and | | | | |
| | Limitations of Statistics; Role of statistics in economic Analysis | | | | |
| | Collection of data- Primary and Secondary. | | | | |
| Unit 2 | 1 0 | | | | |
| | and Tabulation of data. Diagrammatic and Graphical | | | | |
| | representation of data | | | | |
| | Measures of Central Tendency-Arithmetic mean, Geometric mean | | | | |
| | and Harmonic mean | | | | |
| Unit 3 | Median, Mode, Measures of dispersion | on- Ra | nge, Quartiles, Quartile | | |
| | Deviation, Mean Deviation. | | | | |

Suggested Readings:

Allen, R.G.D., Mathematical Analysis for Economists, Macmillan Press and ELBS, London. Chiang, A.C., Fundamental Methods of Mathematical Economics, McGraw Hill, New York. Gupta, S.C., Fundamentals of Applied Statistics, S. Chand & Sons, New Delhi. Monga, G.S., Mathematics and Statistics for Economists, Vikas Publishing House, New Delhi. Speigal, M.R., Theory and Problems of Statistics, McGraw Hill Book Co., London.

Suggested on line link: www.ignou ,www.swayam.

This course can be offered as an elective by the students of following subjects: Open to all

Suggested Continuous Evaluation (25 Marks): The suggested continuous evaluation will have the following criteria – Assignment /Assignment Presentation/ Class Test/Seminar/ Attendance
Course Prerequisites: N/A

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| Vocational Course-01 | | | | | |
|---|--|---------|--------------------------------|--------------------|--|
| Programme: Certificate Course in Economics | | | Year : First | Semester-II | |
| 200000000000000000000000000000000000000 | | | | Paper∍ I VC | |
| Subject : Economics | | | | | |
| Course Code: ECOVC -02 | | | Course Title: DATA ANALYSIS-II | | |
| Course o | | | | | |
| | ng knowledge and understanding of co | llectio | n and presentation of | f data for drawing | |
| | l inferences. | | - 4 - 1 - 41.11. | | |
| | roduce the students the important data | | | _ | |
| 3. To train the students in the use of free statistical software to analyse data. | | | | | |
| Credit: 3 (Three) Elective | | | | | |
| Maximum marks: 25+75 Minimum Passing Marks: 33 | | | 33 | | |
| Total no | Total no. of lectures-tutorials-practical(labour per week):3-0-0 | | | | |
| Unit | | | | No. of | |
| | | | | lectures | |
| Standard Deviation, Co-efficient of Variation | | | | | |
| Unit 1 | | | | 15 | |
| | Skewness- Karl Pearson's and Bowle | ey's m | ethod | | |
| Unit 2 | Moments and Kurtosis | | | | |
| | | | | 15 | |
| | Correlation: Introduction, Types. | | | | |
| Unit 3 | Methods of studying Correlation: scatter Diagram Method | | 15 | | |
| I | | | | 15 | |

Suggested Readings:

Allen, R.G.D., Mathematical Analysis for Economists, Macmillan Press and ELBS, London. Chiang, A.C., Fundamental Methods of Mathematical Economics, McGraw Hill, New York. Gupta, S.C., Fundamentals of Applied Statistics, S. Chand & Sons, New Delhi. Monga, G.S., Mathematics and Statistics for Economists, Vikas Publishing House, New Delhi. Speigal, M.R., Theory and Problems of Statistics, McGraw Hill Book Co., London.

Suggested on line link: www.ignou ,www.swayam.

This course can be offered as an elective by the students of following subjects: Open to all

Suggested Continuous Evaluation (25 Marks): The suggested continuous evaluation will have the following criteria – Assignment /Assignment Presentation/Class Test/Seminar/ Attendance

Course Prerequisites: N/A

| Vocational Course-01 | | | | | |
|--|--|-----------|------------------------|-----------------|--|
| Program | me: Certificate Course in Economics | | Year : Second S | Semester-III | |
| | | | J | Paper- I VC | |
| | Subject : Economics | | | | |
| Course C | Course Code: ECOVC -03 Course Title: DATA AN | | | NALYSIS-III | |
| Course o | utcome: | | | | |
| 1. Buildi | ng knowledge and understanding of co | llection | and presentation of da | ata for drawing | |
| statistica | l inferences. | | • | | |
| 2. To int | roduce the students the important data s | sources | that is available. | | |
| 3. To trai | in the students in the use of free statistic | cal softv | ware to analyse data. | | |
| | | | | | |
| | 3 (Three) | Elective | <u> </u> | | |
| Maximum marks: 25+75 Minimum Passing Marks: 33 | | | | | |
| | Total no. of lectures-tutorials-practical(labour per week):3-0-0 | | | | |
| Unit | Торіс | | | No. of | |
| | | | | lectures | |
| | Karl Pearson and Rank Correlation; Probable Error | | | | |
| Unit 1 | | | | | |
| | | | | 15 | |
| | Association of Attributes. Yule's coefficient of Association | | | | |
| Unit 2 | Regression Analysis | | | | |
| | | | | 15 | |
| | Introduction to Probability Theory: | Meanir | ng and definition of | | |
| Unit 3 | Probability Probability Rules, Conditional Probability. | | | | |
| | 1 | | • | 1.5 | |

Suggested Readings:

Allen, R.G.D., Mathematical Analysis for Economists, Macmillan Press and ELBS, London. Chiang, A.C., Fundamental Methods of Mathematical Economics, McGraw Hill, New York. Gupta, S.C., Fundamentals of Applied Statistics, S. Chand & Sons, New Delhi. Monga, G.S., Mathematics and Statistics for Economists, Vikas Publishing House, New Delhi. Speigal, M.R., Theory and Problems of Statistics, McGraw Hill Book Co., London.

Suggested on line link: www.ignou ,www.swayam.

This course can be offered as an elective by the students of following subjects: Open to all

Suggested Continuous Evaluation (25 Marks): The suggested continuous evaluation will have the following criteria – Assignment /Assignment Presentation/Class Test/Seminar/ Attendance Course Prerequisites: N/A

| | Vocational Course-01 | | | | |
|--|---|---------|-----------------------|-----------------|--|
| Programi | me: Certificate Course in Economics | | Year : Second | Semester-IV | |
| | | | | Paper- I VC | |
| | Economics | | • | | |
| | Course Code: ECOVC -04 Course Title: DATA AN | | | NALYSIS-IV | |
| | Course outcome: | | | | |
| 1. Buildi | ng knowledge and understanding of col | lection | and presentation of d | ata for drawing | |
| statistica | l inferences. | | | | |
| 2. To int | roduce the students the important data s | ources | that is available. | | |
| 3. To trai | 3. To train the students in the use of free statistical software to analyse data. | | | | |
| Credit: 3 | Credit: 3 (Three) Elective | | | | |
| Maximum marks: 25+75 Minimum Passing Marks | | | um Passing Marks: 33 | | |
| Total no. of lectures-tutorials-practical(labour per week):3-0-0 | | | | | |
| Unit | Topic | | | No. of | |
| | • | | | lectures | |
| | Index numbers: Introduction, uses, types and problem in | | | | |
| Unit 1 | construction of Index Numbers, Price | 1 | | | |
| | Laspeyre's Method, Paasche's Method, Fisher's Method. Tests for | | | | |
| | adequacy of Index Numbers. | | | | |
| | T. 0 | | T | | |
| 11-42 | Time Series Analysis: Concept; (| Compor | nents; Least Square | | |
| Unit 2 Method of Determination of Trend | | | d Nauton's Mathed | 15 | |
| | Extrapolation and Interpolation: Binor | | | + | |
| Basic Concept of Determinants and Matrices .Various types of | | | | | |
| Unit 3 | Matrices. Simple operation on Matrix. | • | | 15 | |
| | | | | 13 | |

Suggested Readings:

Allen, R.G.D., Mathematical Analysis for Economists, Macmillan Press and ELBS, London. Chiang, A.C., Fundamental Methods of Mathematical Economics, McGraw Hill, New York. Gupta, S.C., Fundamentals of Applied Statistics, S. Chand & Sons, New Delhi. Monga, G.S., Mathematics and Statistics for Economists, Vikas Publishing House, New Delhi. Speigal, M.R., Theory and Problems of Statistics, McGraw Hill Book Co., London.

Suggested on line link: www.ignou ,www.swayam.

This course can be offered as an elective by the students of following subjects: Open to all

Suggested Continuous Evaluation (25 Marks): The suggested continuous evaluation will have the on months friends following criteria - Assignment /Assignment Presentation/ Class Test/Seminar/ Attendance

Course Prerequisites: N/A