



# Department of Mathematics

## Keral Verma Subharti College of Science

Website: [www.subharti.org](http://www.subharti.org), e-mail: [science@subharti.org](mailto:science@subharti.org)/[subharti.science@gmail.com](mailto:subharti.science@gmail.com), Ph.: 0121-2439043 / 52 (Extn: 2728.), Telefax: 0121-2439067,  
A constituent college of

**SWAMI VIVEKANAND SUBHARTI UNIVERSITY**

(Established under U.P. Govt. Act no. 29 of 2008 and approved under section 2(f) of UGC Act 1956)



24.04.2018

### NOTICE

**Subject:** Value Added courses regarding

It is hereby informed to all UG and PG students that for enhancement of knowledge and skills, the department have introduced a value added courses **Data Analysis** and **Actuarial Statistics**.

Students are suggested to register themselves for participating in value added courses:

S. No.	Course	Course Code	Course duration
1	Data Analysis	VAC-Math-103	05.05.2018 to 09.05.2018
2	Actuarial Statistics	VAC-Math-106	10.05.2018 to 14.05.2018

The course is of 30 hrs and a certificate will be issued after the completion of the course.

Registration can be made two days before the start of the course.

For more information and registration, contact HoD.

Copy to:

1. The Dean ... for information
2. Notice Board ... for students information
3. Concern Course Coordinators

Registrar  
Swami Vivekanand  
Subharti University  
MEERUT

[Dr. Jitendra Kumar]  
Dy. HOD Mathematics

SUBHARTI COLLEGE OF SCIENCE  
S.V.S.U. MEERUT

VALUE ADDED COURSE  
**ACTURIAL STATISTICS**

VAC-Math-106

2017-2018



**OBJECTIVE**

- To familiarize the students about Introductory statistics and its Insurance Applications.

**SCHEDULE  
TIMING**

- 10-14 May 2018

**VALUE**

- KERAL VERMA  
SUBHARTI COLLEGE  
OF SCIENCES



Course convener  
Dr. Jitendra Kumar  
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VALUE ADDED COURSE  
**ACTURIAL STATISTICS**

2017-2018

REGISTRATION FORM

Student's name: .....

Enrollment No.: .....

Programme: .....

Year/Semester: .....

Contact No.: .....

Email Id (optional): .....

Signature: .....

Course Coordinator

## SYLLABUS

Name of Value Added Course: **Actuarial Statistics**

Course Code: **VAC-Math-106**

Time: **30hrs**

**Objectives:** To familiarize the students about Introductory Statistics and its Insurance Applications

### **UNIT I**

Introductory Statistics and Insurance Applications: Discrete, continuous and mixed probability distributions. Insurance applications, sum of random variables. Utility theory: Utility functions, expected utility criterion, types of utility function, insurance and utility theory.

### **UNIT II**

Principles of Premium Calculation: Properties of premium principles, examples of premium principles. Individual risk models: models for individual claims, the sum of independent claims, approximations and their applications.

### **UNIT III**

Survival Distribution and Life Tables: Uncertainty of age at death, survival function, time-until-death for a person, curate future lifetime, force of mortality, life tables with examples, deterministic survivorship group, life table characteristics, assumptions for fractional age, some analytical laws of mortality.

### **UNIT IV**

Life Insurance: Models for insurance payable at the moment of death, insurance payable at the end of the year of death and their relationships. Life annuities: continuous life annuities, discrete life annuities, life annuities with periodic payments. Premiums: continuous and discrete premiums.

### **Course Outcome(s)**

- CO1** Understanding the Introductory Statistics and Insurance Applications.
- CO2** Explaining theories of Survival Distribution and Life Tables.
- CO3** Learning the basic principles of Life Insurance.



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### **SUGGESTED READING:**

1. Dickson, C. M. D. (2005): Insurance Risk And Ruin (International Series On Actuarial Science), Cambridge University Press.
2. Bowers, N. L., Gerber, H. U., Hickman, J. C., Jones, D. A. And Nesbitt, C. J. (1997): Actuarial Mathematics, Society Of Actuaries, Itasca, Illinois, U.S.A.



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Session: 2017-18

### Report on Value Added Course

A one week value added course on ACTUARIAL STATISTICS was conducted in the department for UG students. The course starts on 10-05-2018 and 50 students registered themselves in the course. The sessions were handled by course co-ordinators Dr. Jitendra Kumar & Dr. Vikas Kumar, for improving the statistical skills of the students. The course was completed on 14-05-2018 and all the 50 students registered successfully completed the course. Students felt that the course was very much helpful and they got the basic knowledge on actuarial statistics.

f.   
HOD

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### Student's list-Value added course on Acturial Statistics

Sl. No	Name of the Students
1.	Hritik Chauhan
2.	Indu Punia
3.	Km Archana
4.	Prakhardeep Kardam
5.	Km Manisha Panwar
6.	Rashid Ali
7.	Ankit Kumar
8.	Km Pooja
9.	Neha
10.	Rukhsar Khan
11.	Gaurav Baisala
12.	Ajay
13.	Kajal Chauhan
14.	Km Kajol Kumari
15.	Nikita Sharma
16.	Palak Jindal
17.	Prashant Singh
18.	Ritik Malik
19.	Rupal Caudhary
20.	Shivam Chaudhary
21.	Tanya
22.	Vivek Gaur
23.	Himanshu
24.	Akshay Jain
25.	Anuj Pal

26.	Taj Mohammad
27.	Lovey
28.	Prince Malik
29.	Shivam Bhardwaj
30.	Shubham Singh
31.	Vijay Kumar
32.	Mahima Choudhary
33.	Neelam Rani
34.	Neetu Kuniyal
35.	Rajat Choudhary
36.	Shalu Chhabra
37.	Shivani Singh
38.	Shujaat Ali
39.	Vatan Singh Pal
40.	Aakash Choudhary
41.	Amit Pal
42.	Ayush Malik
43.	Bhavishya Kumar Singh
44.	Kartik Puniya
45.	Lalramnghaka
46.	Mintoo Singh
47.	Mohd Anas
48.	Mohd Nasir
49.	Nitin Yadav
50.	Parul Saini

  
Registrar  
Swami Vivekanand  
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[Dr. Jitendra Kumar]  
Officiating HOD Mathematics