## ST.ANN'S COLLEGE FOR WOMEN

**GORANTLA, GUNTUR-35** 

Date: 06-03-2023

From Head,
Department of Statistics,
St. Ann's College for Women,
Gorantla, Guntur – 34.

To The Principal, St. Ann's College for Women Gorantla, Guntur- 34.

Respected Sister,

Sub: Department of Statistics – Request to conduct ADD-ON CERTIFICATE

COURSE on Applications of Statistical Quality Control to students – Reg.

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The Department of Statistics is Planning to conduct Add-On Certificate Course for the students of III B.Sc – Mathematics, Statistics and Computer Science Students on "Applications of Statistical Quality Control" from 20<sup>th</sup> March, 2023 to 29<sup>th</sup> March,2023. In this connection, We are requesting you to kindly permit us to conduct the above said course for the benefit of the students. After completion of this course, students should able to know about how to apply the statistics in Industry. The duration of the course is 32 Hours. We are Planned to commence the programme from 20<sup>th</sup> March, 2023.

Thanking you,

Permission granted

Do. So Fatima Romp

PRINCIPAL

St. Ann's College for Women
GORANTLA, GUNTUR-522 034

Yours Sincerely

(Dr. J. Pratapa Reddy)

Head of Dept. of Statistic St. Ann's College for Work GORANTLA, GUNTUR-522034

Ph: (O) 0863-2236470, 2254224



# ST. ANN'S COLLEGE FOR WOME

(A Catholic Christian Minority Institution) Affiliated to Acharya Nagarjuna University

AMARAVATHI ROAD, GORANTLA, GUNTUR - 522 035. A.P.

Date: 09-03-2023

# **ADMISSION NOTICE** ADD-ON CERTIFICATE COURSE: 2022 - 2023

The Department of Statistics proposes to enroll new batch for Add-on Certificate course in "Applications of Statistical Quality Control (SQC) in Industry". This Program is for the students of III Year B.Sc - MSCs students of our college. The course will commence from 20th March, 2023. Details of the course are:

No. of Seats available : 40

Venue for Registration: Department of Statistics - Lab

: 20<sup>th</sup> March, 2023 to 29<sup>th</sup> March, 2023 Period of Course

**Duration of the Course: 32 Hours** 

Time : 9.00 am to 11.00 am and 1.00 pm to 3.00 pm

Mode of Teaching : Offline

Course Co-ordinator(s): Dr. J. Pratapa Reddy & Mrs. G. Vijaya Lakshmi

Last date for Registration: 18th March, 2023.

> A Minimum 80% attendance and 70% marks in Final assessment conducted by the Department are mandatory requirements for obtaining the certificate.

>>> Submitting the feedback of attended Add-on Certificate Course is one of the mandatory requirements to receive the certificate.

-> Admissions are done on the basis of First Come and First Serve and Fee is not

refundable. Head of Dept. of Statisti St. Ann's College for Won.

**GORANTLA, GUNTUR-522034.** 



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### ADD-ON CERTIFICATE COURSE

Domain Subject: STATISTICS

Topic: "Applications of Statistical Quality Control (SQC) in Industry".

Number of Hours: 32

| Name of the<br>Course        | Topic   | Theory<br>Hours | Practical<br>Hours | Total Number of Hours |
|------------------------------|---|-----------------|--------------------|-----------------------|
| Add-on<br>Certificate Course | Applications of Statistical<br>Quality Control (SQC) in<br>Industry | 16              | 16                 | 32                    |

### **Course Objectives:**

To understand the concept of quality, process control and product control usin control chart techniques.

To have an idea about quality management, Nataural tolerance limits, specification limits and standardizations for quality.

## **Learning Outcomes:**

After learning this Add-on Certificate Course, the student will be able

- 1. To define 'quality' in a scientific way
- 2. To differentiate between process control and product control
- 3. To speak about quality awareness in industry
- 4. To distinguish between control charts for variables and attributes
- 5. To pave a path to an industry to meet the standards
- 6. To effectively implement various Control Charts to control the quality standards various stages of an industry.
- 7. Practical aspects and real data illustration of the related problems.

#### SYLLABUS: -

#### Theory

- 1. Role of SQC in Industry
- 2. Process Control and Product Control
- 3. Statistical basis of Shewart Control Charts
- 4.  $3\sigma Limits$
- 5. Control Charts for Variables and Attributes
- 6. Mean and Range Charts Construction
- 7. d or np-charts Construction
- 8. P-Chart Construction
- 9. C- chart Construction and Applications
- 10. Natural Tolerance Limits and Specification Limits

#### Practical/Lab

- 1. Construction of  $\bar{X}$  and R Charts.
- 2. Construction of p Charts for fixed sample size.
- 3. Construction of p Charts for variable sample size.
- 4. Construction of np Charts.
- 5. Construction of C charts.

#### **Text Books:**

- 1. Montgomery, D. C. (2008): Statistical Quality Control, 6th Edn., John Wiley, New York.
- 2. S.C. Gupta and V.K. Kapoor: Fundamentals of Applied Statistics Chand publications.

#### References:

1. R.C. Gupta: Statistical Quality Control.

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Head of Dept. of Statistic 20/\$13 Aprox Gollege for Worr GORANTLA, GUNTUR-5220 2. 9-120/3/2013