

# MASTERS DEGREE IN QUANTITATIVE FINANCE

Information plays a vital role in business decision making and adequate data are required to derive such information. It is observed that most of the organizations do not have information required to make decisions and others manage through professionals with the required skill sets to classify, analyse and interpret information. The fact based decision making requires managers who know how to summarise, analyse and interpret financial data. Financial analysis with Statistics and Mathematical tools are extensively used by the organization for better decision making.

Masters Degree in Quantitative Finance is a specialized course, jointly offered by the Ramanujan School of Mathematical Sciences and School of Management. UGC has sanctioned this course under its “Innovative Programme – Teaching and Research in Interdisciplinary and Emerging areas” scheme. The primary focus of this course is to develop manpower with “knowhow” and “knowwhy” skills regarding application of Statistics and Mathematical tools in Financial analysis. It focuses on the fundamentals of Mathematics, Statistics, Econometrics, Computer Science and Risk Management. It provides the necessary analytical tools to solve practical problems in a complex and rapidly evolving world of financial services industry.

Students are trained for corporate roles across several verticals of business like Financial

Analysts, Research Analysts, Analytics in marketing, Operations Research, Insurance and Risk Management, etc. This course will also expose the students to popular analytics software tools like, SPSS, Minitab, R Language, Financial Analysis through Excel, CMIE- PROWESS, Bloomberg etc.

## FOR WHOM

This course is for all those who are dreaming to have career as Financial Analyst and Business Analytics and for those who are interested in applying Statistical and Mathematical knowledge in Economics, Public Finance, Monetary Policy and Corporate Finance.

This is an intensive program where in students will study all subjects which are necessary in the process of analysis such as Stock Market and Financial Institutions, Derivatives Market, Risk Management and Strategies, Forex Market etc. The course aims to create hard core data scientists.

## MAJOR HIGHLIGHTS OF THE CURRRICULUM:

This course is designed to provide an in depth knowledge of handling financial data like stock market, commodity market, FOREX market etc and statistical and mathematical analytics tools that can be used for fact based decision making. The subjects offered under this programme are a blend of Data

Warehousing and Data Mining, Big Data Analytics, General Management, Investment Banking, Portfolio and derivatives, Risk Management, International Finance along with advanced Statistics, Mathematics and Information Technology that enables to build models and helps to analyze the financial positions of organizations.

### **UNIQUE FEATURES OF THE COURSE**

- Industry Linked Course Curriculum
- Computer Lab based Subjects
- Field Study based Assignments
- Learning through Experience
- Internships
- Industrial visits / Training Modules

### **TEACHING LEARNING PROCESS:**

This course will be conducted through class room sessions, online sessions, mentoring sessions, projects and internships with emphasis on Intuitive, Interactive and Innovative (I<sup>3</sup>) practices.

- Intuitive: Class Room Lectures by professors and Adjunct/visiting faculty from Industries.
- Interactive : computer labs, Internships, workshops and case studies
- Innovative: Live Projects, Industry and Activity Based Learning

### **CAREERS**

After completion of this course students will be capable of taking up positions with financial institutions like investment banking, wealth management companies, securities trading and government regulatory organizations like Reserve Bank of India, Securities and Exchange Board of India, Insurance Regulatory and Development Authority. Careers include financial engineers , Financial analysts and a range of positions requiring advanced understanding of quantitative financial model building.

### **Co ordiator**

**Prof. P. Dhanavanthan**, Professor, Department of Statistics, Ramanujam School of Mathematical Science, Pondicherry University, Puducherry.

### **Deputy Coordinator**

**Dr. D. Lazar**, Associate Professor, Department of Commerce, School of Management, Pondicherry University, Puducherry

### **Faculty**

#### **Dr. C.U.Tripura Sundari, Ph.D**

*Specialization:* Financial Economics and Econometrics

#### **Ms. A.Mercy**

*Specialization:* Mathematics and Actuarial Science

#### **Ms. R. Amala**

*Specialization:* Probability and Applied Statistics