

# INSTITUTE OF ACTUARIAL & QUANTITATIVE STUDIES





# ORIENTATION







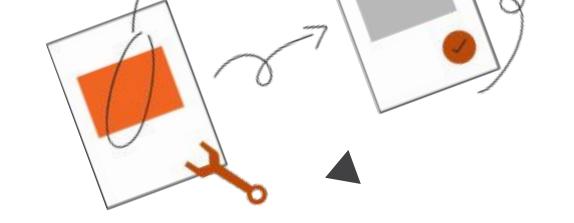
# AKASH RUGHANI

# PROGRAM DIRECTOR - IAQS

- Chartered Accountant (ICAI, India) Merit Rank Holder
- Financial Risk Management (Cleared) (GARP, USA)
- Cleared 8 Actuarial Papers
- Actuarial Mentor Over 14 years
- Consultant to various general insurance companies











# OUR AGENDA



Accreditation with IFoA

Course Information & structure

Key Highlights of the Program

Industry – Academia Partnership

Subject Overview & Mapping

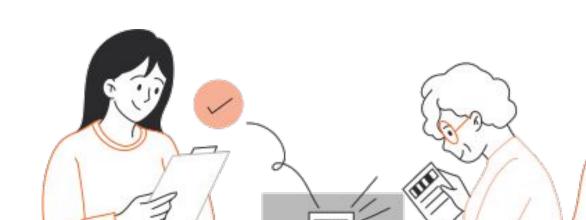
Placements and Class Profile

General Rules

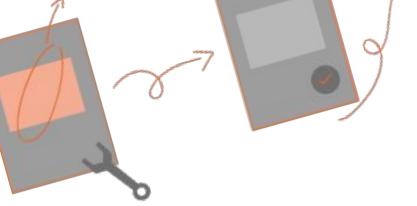
Credit System

Learning Management
System (LMS)



























2018

2019

2020

2021

2022

2023

2024

**Formation of** IAQS with a holistic Industry **Advisory Board** 

1st Batch started with 20 students

**Only Course in** India to get accreditation from IFoA offering up to 6 exemptions

**International Accreditation with** a direct pathway to Australian **National** University

**MSc Program Accredited by** the IFoA offering 7 exemptions

**Partnered with Herriot Watt University and Bayes Business** School in the UK 400+ Students, 30+ Industry **Mentors** 3+ Qualified **Actuaries and 20+ Corporate Partners** 





# JOURNEY OF JAS





# **The Hybrid Program** MSc in Actuarial Science with Data Analytics









## Everything You Need. Nothing You Don't.

- Duration: 2 years (Hybrid)
- Added Flexibility: Ideal for working professionals, remote learners & international students
- Curriculum conducted as per IFoA Standards (Accreditation in Process)
- Live + recorded sessions
- Campus immersion every semester
- Offline exams at nearby national & international centres.
- Scholarship up to 50% for Inaugural Batch



**INSTITUTE OF ACTUARIAL &** 

QUANTITATIVE STUDIES



# ACTUARIAL INSTITUTES





The Institute of Actuaries of India is the sole National Apex Body for Actuaries in India with an Objective to prepare "Actuaries of tomorrow" who are adequately qualified and competent in the global context.



The Institute and Faculty of Actuaries (IFoA) is the UK's only chartered professional body dedicated to educating, developing and regulating actuaries based both in UK and internationally.



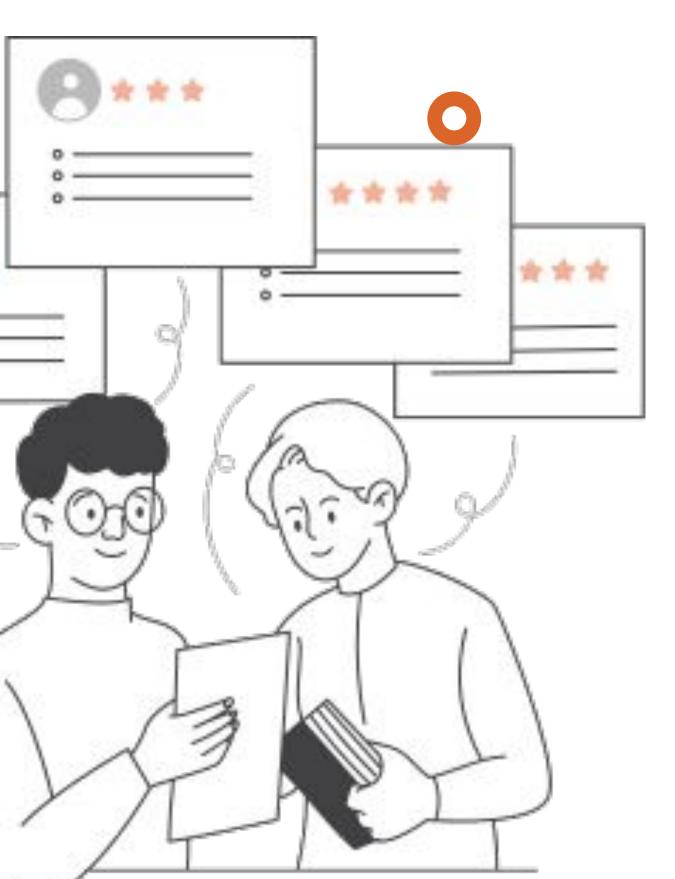
The Society of Actuaries is a global professional organization for actuaries. It was founded in 1949 as the merger of major actuarial organizations, the Actuarial Society of America & the American Institute of Actuaries.





The Casualty Actuarial Society is a leading international professional society of actuaries, based in North America, and specializing in property and casualty insurance.







MSc (Actuarial Science with Data Analytics) is India's only Hybrid degree programs to be accredited by IFoA for exemptions.



# M.Sc. ASDA

#### ONLY HYBRID COURSE TO BE ACCREDITED BY IFOA AND PROVIDING upto 7 EXEMPTIONS

India's first and only IFoA accredited Hybrid M.Sc degree offering exemption up to 7 IFoA Core Principle subjects namely CP1, CM1, CM2, CS1, CS2, CB1, and CB2.

2-Year, Full Time, M.Sc.
(Actuarial Science with Data Anlytics) degree program.





Focused and fast paced curriculum to give the required academic and professional in actuarial journey.

Supporting applicants for professional career pursuits and equipping them with relevant technical skills and focusing on their holistic development.

Comprehensive Foundation and depth in the field of Banking, Financial Services, and Insurance.



#### COURSE STRUCTURE FOR MSC -YEAR-1

#### **SEMESTER-1**

- Probability and Statistics
- Financial Mathematics
- Business Economics
- Insurance
- Application of IT Excel
- Fraud Analytics and Prevention

#### **SEMESTER-2**

- Portfolio Theory and Security Analysis
- Financial Engineering
- Statistical and Risk Modelling
- Business Finance
- Generative Al
- R Project

#### COURSE STRUCTURE FOR MSC -YEAR-2

#### **SEMESTER-3**

- Pricing & Reserving for Life Insurance 1
- Statistical and Risk Modelling 2
- Statistical and Risk Modelling 3
- Application of IT Python
- Model Documentation & Analysis
- Actuarial Practice 1

#### **SEMESTER-4**

- Pricing & Reserving for Life Insurance 2
- Statistical and Risk Modelling 4
- Predictive analytics & machine learning
- Actuarial Practice 2
- Introduction to cyber security
- Data Visualisation and Power BI

# IFoA – Subject Mapping for MSc

CB 1 Business Finance  CB 2 Business Economics  CM 1 Financial Mathematics, Pricing &Reserving for Life Insurance Products 1 & 2.  Portfolio Theory & Security Analysis, Financial Engineering 1, Statistical & Risk Modelling 2 Probability & Statistics, R - Project work  CS 2 Statistical & Risk Modelling 1, 2, 3 & 4, PAML CP 1 Actuarial Practice 1 & 2 Model Documentation Analysis and Reporting  2 CB 1 Business Finance 2 1, 2, 3 & 4 1, 2, 3 & 4 2 & 3 3 & 4			
CB 2 Business Economics  CM 1 Financial Mathematics, Pricing &Reserving for Life Insurance Products 1 & 2.  Portfolio Theory & Security Analysis, Financial Engineering 1, Statistical & Risk Modelling 2  Probability & Statistics, R - Project work Statistical & Risk Modelling 1, 2, 3 & 4, PAML CP 1  Actuarial Practice 1 & 2	oA Papers	IAQS Subjects	Semester
Financial Mathematics, Pricing &Reserving for Life Insurance Products 1 & 2.  Portfolio Theory & Security  Analysis, Financial Engineering 1, Statistical & Risk Modelling 2  Probability & Statistics, R - Project work  Statistical & Risk Modelling 1, 2, 3 & 4, PAML  CP 1  Financial Mathematics, Pricing &Reserving for Life Insurance Products 1 & 2.  1, 2, 3 & 4  1, 2, 3 & 4  1, 2, 3 & 4  2 & 3  2 & 3  3 & 4	CB 1	Business Finance	2
Pricing &Reserving for Life Insurance Products 1 & 2.  Portfolio Theory & Security  Analysis, Financial Engineering 1, Statistical & Risk Modelling 2  Probability & Statistics, R - Project work  Statistical & Risk Modelling 1, 2, 3 & 4, PAML  CP 1  Actuarial Practice 1 & 2  Pricing &Reserving for Life Insurance Products 1 & 2.  1, 2, 3 & 4  2 & 3  4 & 2  2, 3 & 4  2, 3 & 4	CB 2	Business Economics	1
CM 2 Analysis, Financial Engineering 1, Statistical & Risk Modelling 2  Probability & Statistics, R - Project work  Statistical & Risk Modelling 1, 2, 3 & 4, PAML  CP 1  Actuarial Practice 1 & 2  2 & 3  1 & 2  2 & 3  2 & 3	CM 1		1, 2, 3 & 4
CS 1 R - Project work  Statistical & Risk Modelling 1, 2, 3 & 4, PAML  CP 1 Actuarial Practice 1 & 2  1 & 2  2, 3 & 4  3 & 4		Analysis, Financial Engineering 1,	2 & 3
CS 2 3 & 4, PAML  CP 1  Actuarial Practice 1 & 2  3 & 4	CS 1		1 & 2
	CS 2		2, 3 & 4
CP 2 Model Documentation Analysis and Reporting 3	CP 1	Actuarial Practice 1 & 2	3 & 4
	CP 2	Model Documentation Analysis and Reporting	3

# MSc Actuarial Science Placements Statistics



Package

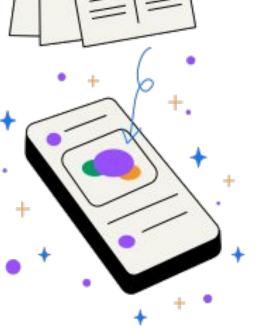
18 LPA



Median

Package 10.5 LPA





# KEY HIGHLIGHTS OF **PROGRAM**



Revisit, Rethink And Revise Lectures Anywhere, Anytime

#### PRACTICAL LEARNING

Capstone Projects & Job-oriented Training

#### FACULTY

Industry Experts with 40+ Years of Cumulative Experience

COMPLIMENTS PROFESSIONAL COURSES

Actuarial Science, CFA, FRM & CAIA

International Tie-ups At Australia And UK And Internship Opportunities

#### CAMPUS

Situated At The Heart Of Mumbai with Co-curricular Activities

#### JOB READY

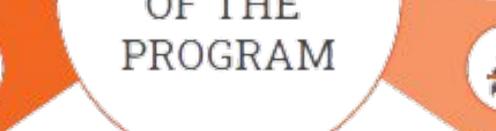
Lucrative Career Path & 2-months Mandatory Internships

#### PLACEMENT CELL

Guidance For Future Career & 100% Job Placement Assistance





























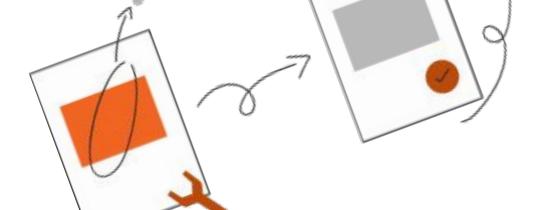




# Placement

# Statistic Overview

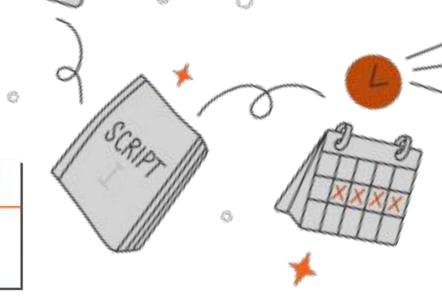




# PLACEMENTS











Where do our students get placed?

16% LIFE INSURANCE





ACTUARIAL CONSULTING 26%









26% GENERAL INSURANCE

















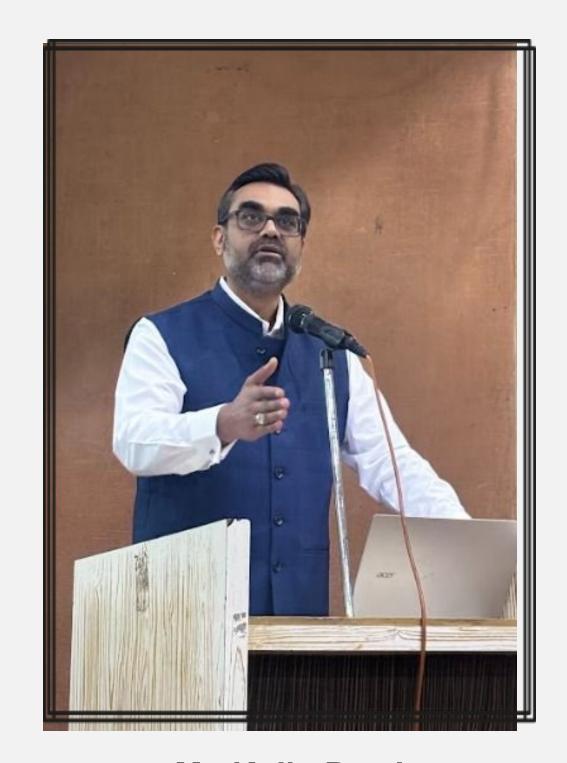
# Industry – Academia Connects



Mr . Brian chiarella, FCAS
Liwes & Ellis
Actuaries and Consultants



Mr. Sheel Sawhney
Group COO at Brit Insurance
United Kingdom



Mr. Kulin Patel
Group CEO at
K. A Pandit

• President, Chief Actuary & CRO, Kotak **Mr Sunil Sharma** Life Insurance. • Ex – President, IAI & Council Member & **Member Life Board, IFoA UK** • Treasury counterpaty risk team lead Mr. Vighnesh Mehta at GEVP Yes bank. Industry Sessions • Fellow CA and Fellow Actuary, India, Mr. Kartikeya Kandoi **UK**, Sri Lanka Managing Director, PwC AIMS India Mr. Hariharan Mani

Mr. Eric • Director, German Israeli Foundation for **Scientific Research and Development Zimmerman** • Senior Lecturer, Australian National Mr. Gaurav Khemka University Academic Sessions • She is from Australian National **Ms.Chloe Zhang** University. • Founder and Managing Director at Dr. Pratibha Jain **Eduaboard Consultant** 

Mr. Thomas • Former Chairman and Managing Director LIC of India, BOD on various companies **Mathew** • Retired IPS Officer, BOD on various Mr. D. Sivanandan companies Partner and Valuation Expert at KNAV Mr. Rajesh Khairajani **International and Inde Global Advisory** • Ex Director( Willis Towers Watson),Ex Mr. JV Prasad **Appointed Actuary** 

Mega Industry Sessions

# **ADVISORY BOARD**



Pratibha Jain
Founder & Managing
Director, Eduabroad
Consultant
Education Counsellor,
Mumbai University
affiliated colleges.



Board of Directors on
Various Companies, IPS
Officer (Retd.), Ex
Commissioner of Police

**D** Sivanandhan



Rajesh Khairajani
Partner - KNAV
International,
Partner - Inde Global
Advisory
Valuation expert,
Speaker at Indo
American Chamber of
Commerce & NASSCOM



Tanveer Quraishi

Head - Analytics, Marsh

McLenaan Global

Services India Private

Limited (MMGS)

Ex Senior Analyst 
Actuarial, WNS Global

Service.

# **ADVISORY BOARD**



**Thomas Mathew** 

Board of Director (L&T group of companies, LIC of India, Canara HSBC OBC L.I.C Ltd.)



Nilesh Shah

Managing Director, Kotak

AMC Ltd

Member, Prime Minster's

Economic Advisory

Council



**JV Prasad** 

Ex- Director, Willis

Towers Watson

x Appointed Actuary &

Vice - President - ICIC

Lombard GIC.



Sauvik Banerjjee

Iobal CEO Rezolve (UK,
US, Europe, India)
Ex CTO Tata Neu, CTO
TataCLiQ, SAP,
Accenture, Infosys,

# Aman Loharuka

# **Distance Learning**

# DIRECTOR - IAQS

- Qualified Life Insurance Actuary
- 5 + Years of Teaching Experience
- Bachelor of Commerce (University of Mumbai)





# SUBJECT &

# OVERVIEW

**MSc Semester-1** 



# SEMESTER-1 SUBJECT

Probability and Statistics

**Financial Mathematics** 

**Business Economics** 

Applications of IT- Basics & Advance Excel

**Fraud Analytics** and Prevention

Insurance Principles, Products
and Practices

#### **Financial Mathematics**

## Overview

- Financial products and its cashflows
- Measurement of interest
- Real and monetary interest rate
- Discounting and accumulating cashflows
- Annuities
- Equation of value
- Amortizing schedule/ Loan schedule
- Capital budgeting



Associate of the Institute of Actuaries, UK

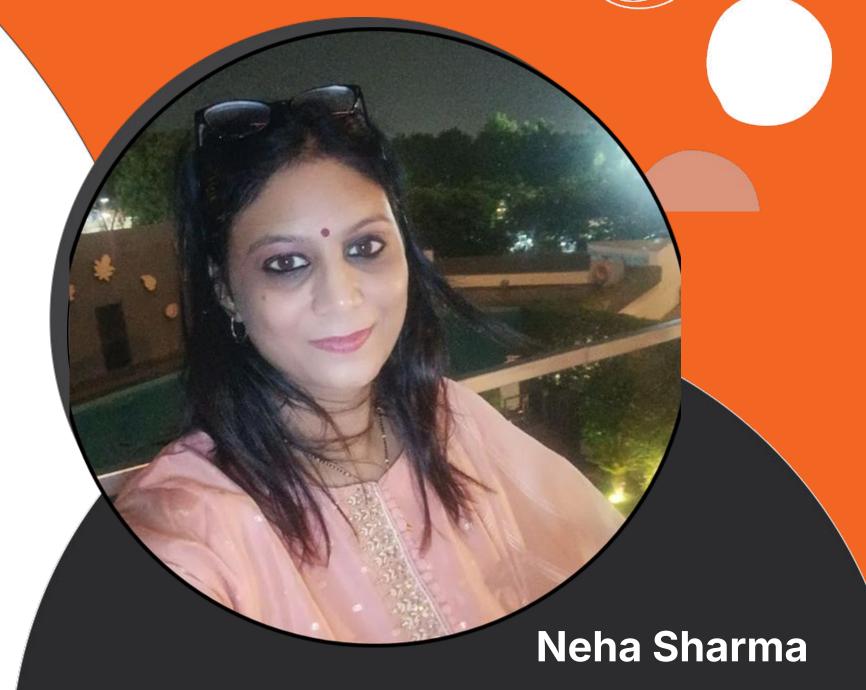
Cleared all actuarial exams from IFoA

BSc. Actuarial Science and Quantitative Finance

#### **Business Economics**

## Overview

- Demand and Supply Analysis
- Market Structures
- Cost and Revenue Concepts
- Inflation and unemployment
- Trade and Exchange Rates
- Fiscal and Monetary Policy



18 years of experience in teaching Economics and International Business

Deep understanding of global markets and economic principles, honed through my work with prestigious institutions like the University of London and the London School of Economics

#### Life Insurance-Principles, Products and Prices

## Overview

- Introduction to Insurance
- The Fundamental Principles of Life Insurance
- Life Insurance Products
- Group Insurance
- Product development
- Underwriting
- Pricing Elements



Director - Placements and Academics at IAQS

Qualified Actuary (FIA)

BSc Statistics (University of Mumbai)

Head - Academics & Research, IAQS

Ex - Senior International Consultant – Mercer

Singapore

#### **Probability and Statistics**

## Overview

- Summarizing data
- Descriptive statistics
- Fundamentals of Probability
- Random Variables
- Theoretical discrete distributions
- Theoretical continuous distributions
- Generating Functions
- Joint Distributions
- Conditional Expectations
- Central Limit Theorem

Bhavya Shah and Manav Badani

Combined 8 + Years of Teaching Experience

#### **Application of IT- Basics and Advance Excel**

#### Overview

- Overview of Microsoft Excel
- Formatting and data analysis
- Pivot tables
- Writing formulas
- Conditional formatting and Goal seek
- Presenting data and Charts
- Auditing, Error identification, solving and review
- Financial Mathematics (using first principles)
- Overview of Advanced VBA
- Loops, Conditional Statements, and Data Handling in VBA



#### **Aman Loharuka**

- Qualified Actuary

### **Fraud Analytics and Prevention**

## Overview

- Types of Financial Crimes
- Fraud Detection Models
- Forensic Accounting
- Al in Fraud Analytcs
- Risk Mitigation
- Regulatory Compliance



**Qualified General Insurance Actuary** 

5 + Years of Teaching Experience

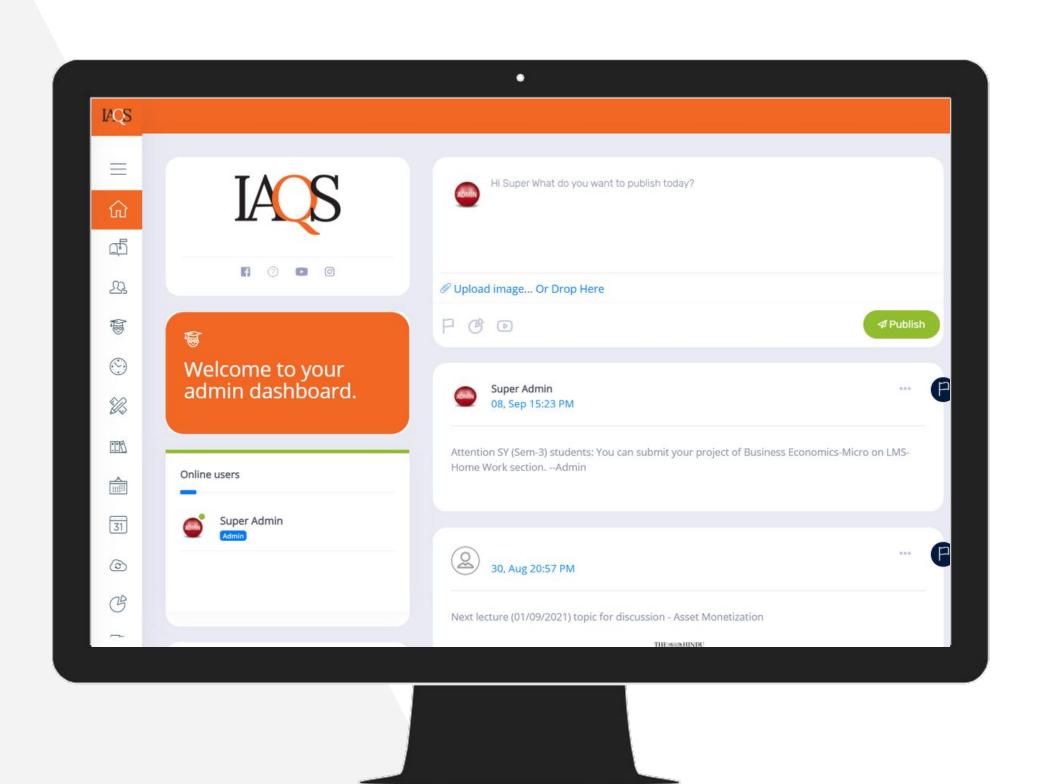
Bachelor of Commerce (University of Mumbai)

# LIMS - User

# Interface







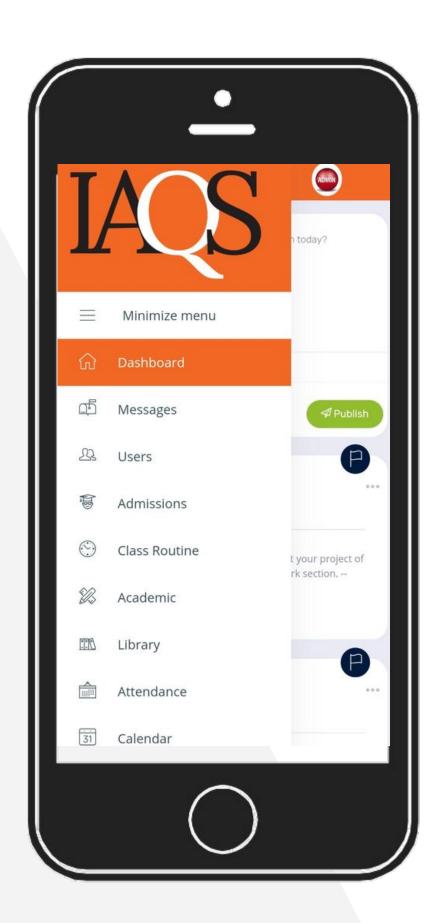
# Learning Management System (LMS)

Sharing of Assignments, Notes and PPTs
Recorded Lecture
Time-table

Classwork submission

Updates and news



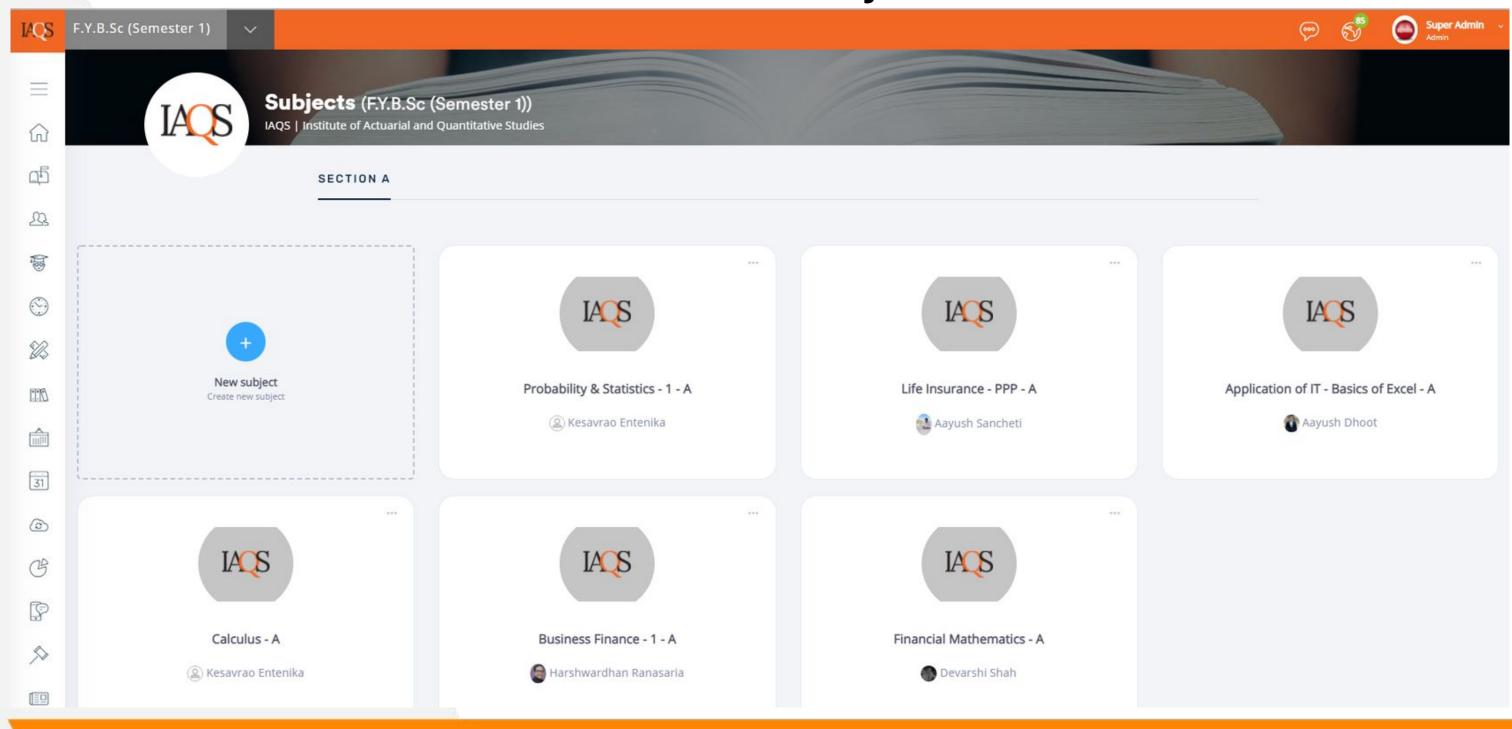


# IAQS LMS

Revisit, Rethink & Revise

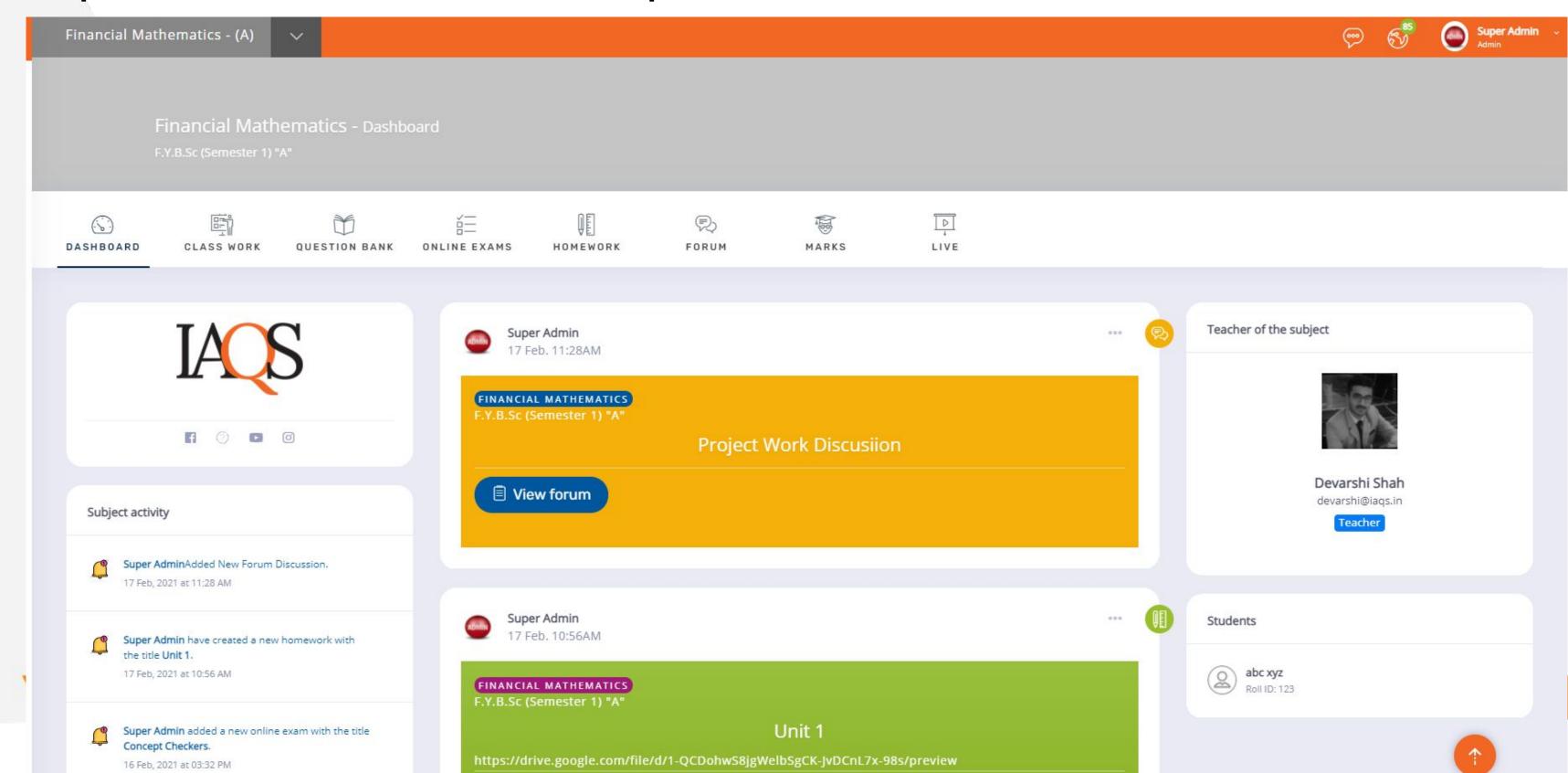
# LMS - Classroom

# Classes based on subjects



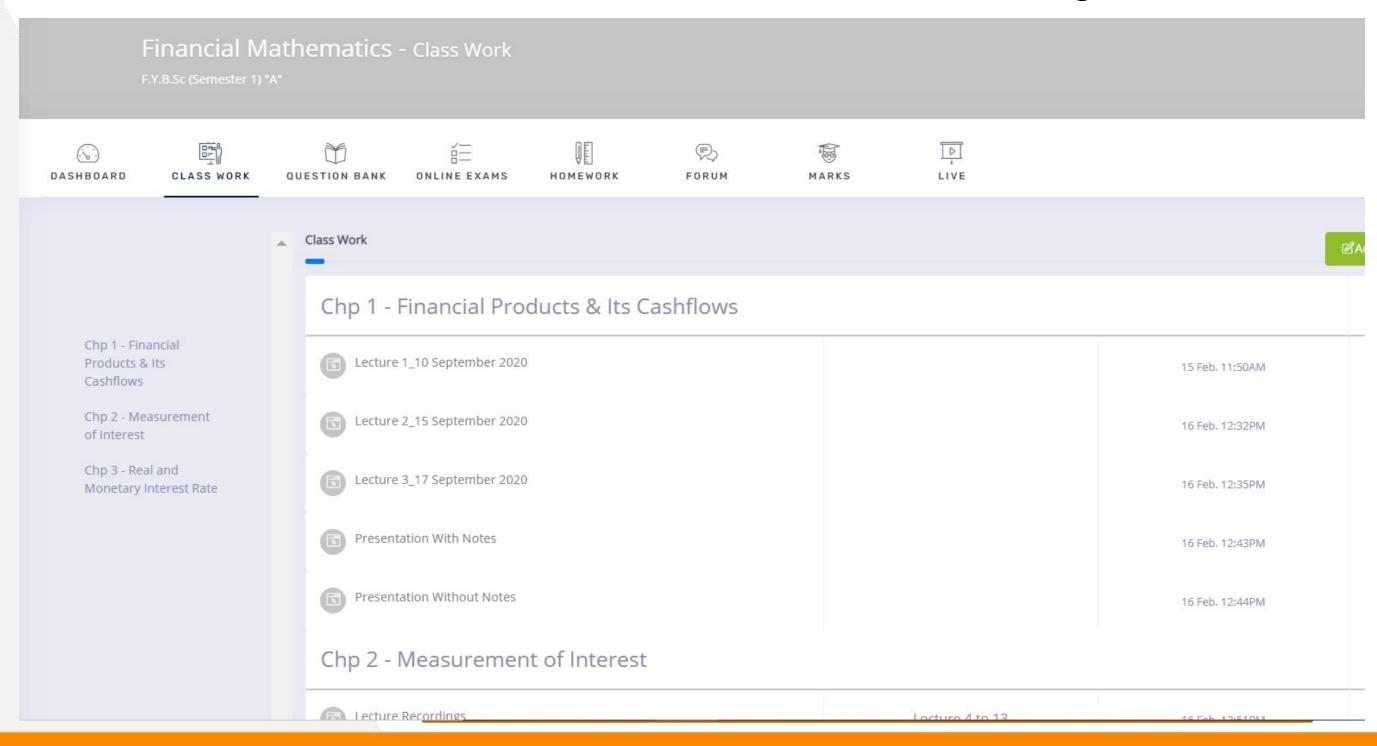
# LMS - Classroom

# Update related to material upload can be seen in stream



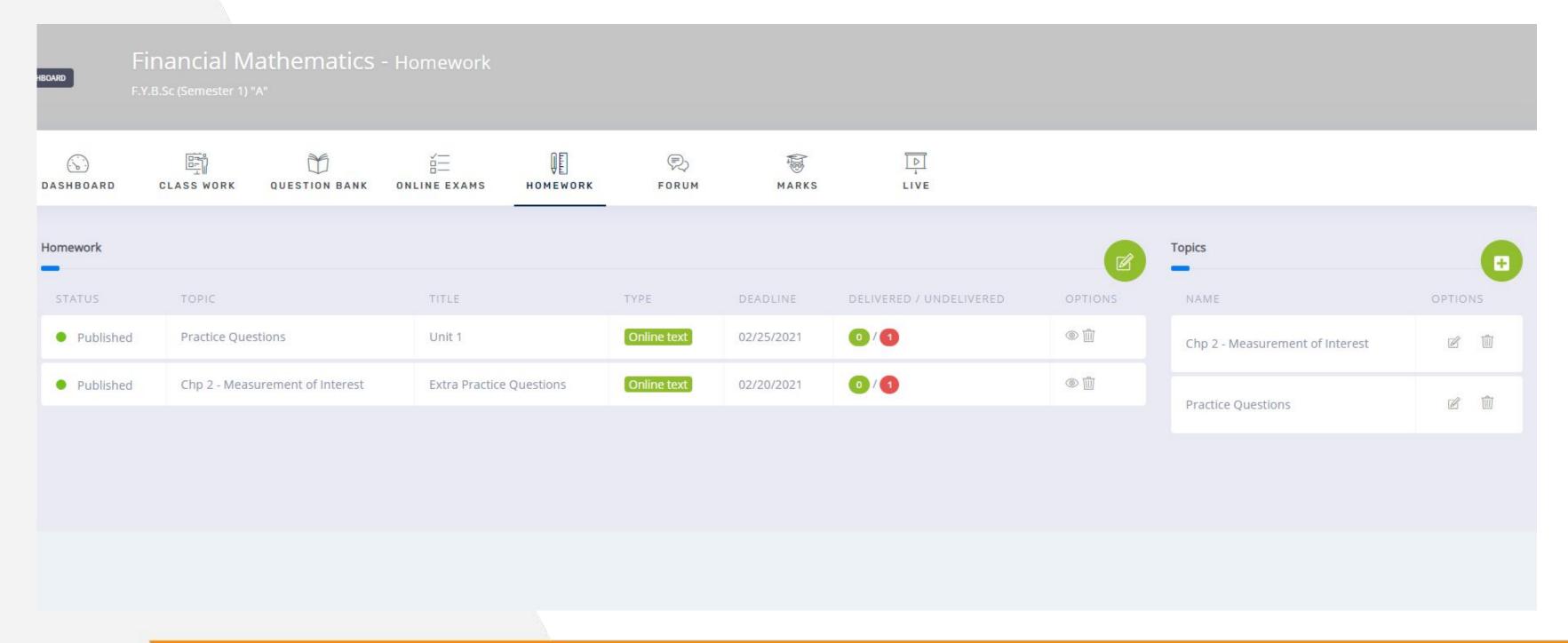
# LMS - Classroom

Chapter wise material can be seen in classwork in organised manner



### LMS - Classroom

#### Due date for submission will be shown in classes



#### **General Rules**

- Compulsory attendance is 50% as per university norms, however 90% is advisable to understand and make the most of the curriculum.
- All students must have the camera turned on for the attendance to be counted
- Students falling under the defaulters list, are supposed to fill the low attendance undertaking form at the end of the month and submit it on the Defaulters Undertaking Submission Form link.
- O Medical certificates/ proofs for attendance/ leave need to be directly submitted on the leave form. No emails for the same will be accepted.
- For every group project, a group leader will be appointed in every group. He will conduct all the meetings and divide work amongst the group members. At the time of submission, this needs to be with the admin team. Non participation in the project will be taken count of and such students will be marked accordingly

#### **Point of Contact**

For All Queries related to Lectures, LMS, Exams Administration and others - single point of contact:

OVishal Razdan – vishal@iags.in – Student Coordinator

#### **Escalation**

O Aman Loharuka - aman@iaqs.in

Escalation Level 2 – Akash Sir <u>– akash@iaqs.in</u>



# Snapshot of Assessment

### Snapshot of Assessment

Internal Examination	Marks	External Examination	Marks
Attendance	5	Semester Exams	60 marks
Class Test	10 - 2*5		
Presentation and Case Studies	15 or 25*		
Internal Test	10 or 0*		
	40 marks		60 marks

<sup>\*</sup> Application of IT subjects shall have a 35 marks project/ case study with no internal exams.

## Projects

Financial	Probability & Statistics +	Economics	Insurance
Mathematics + Excel	Fraud Analytics		

There will be 4 projects for Semester 1



## Tentative Academic Calendar

### Tentative Academic Calendar

Particulars	Tentative Dates	
Semester 1 starts	10 <sup>th</sup> August 2025	
Assignment test 1	15 <sup>th</sup> To 18 <sup>th</sup> September 2025	
Internals	13 <sup>th</sup> To 16 <sup>th</sup> October 2025	
Diwali break	17 <sup>th</sup> to 20 <sup>th</sup> October 2025	
Assignment test 2	12 <sup>th</sup> to 15 <sup>th</sup> November 2025	
Portion Completion	1 <sup>st</sup> to 3 <sup>rd</sup> December 2025	
External exams	13 <sup>th</sup> to 20 <sup>th</sup> December 2025	
Immersion sessions (At RRU Centre)	22 <sup>nd</sup> to 24 <sup>th</sup> December 2025	

## Tentative Exam Calendar

Subject	Date	
Probability & Statistics	13 <sup>th</sup> December 2025	
Economics	15 <sup>th</sup> December 2025	
Fraud Analytics	16 <sup>th</sup> December 2025	
Financial Mathematics	18 <sup>th</sup> December 2025	
Excel	19 <sup>th</sup> December 2025	
Insurance	20 <sup>th</sup> December 2025	

## IAQS Clubs

#### **Beyond The Classroom**

Experience our students' vibrant college life! Scan the QR code on the back to dive into their adventures and stories!

#### **CULTURAL COMMITTEE**



#### TED X IAQS



#### **ACTUARIAL SOCIETY**



#### E-CELL



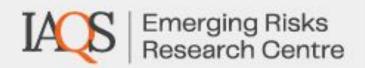
#### FINANCE SOCIETY



#### COGNIZANCE



#### EMERGENCY RISK CENTRE



## Kaushik Ashwini

**Associate Director – RRU** 





## Tanmeet Kaur

Principal Actuary at Zamara MENA,

Member of IFoA Middle East Committee



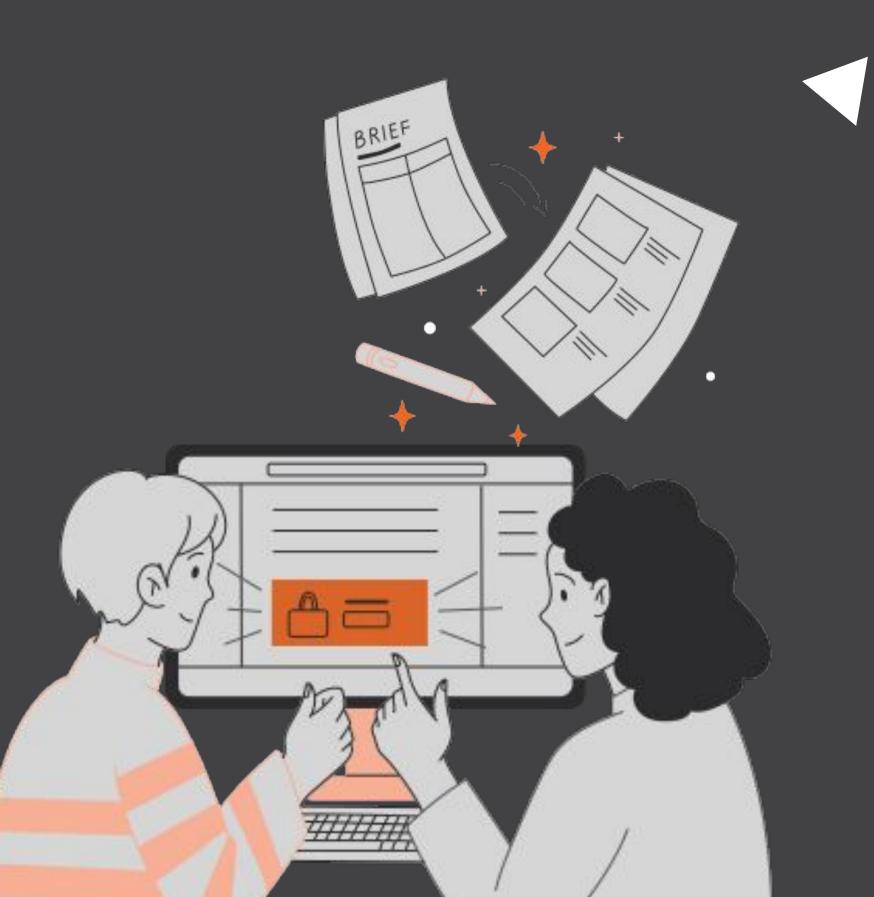


## WELCOME TOTHE IAQS





The Journey Begins......



## THANK YOU

#### Contat Us:

- info@iaqs.in
- +91 9372777615
- IAQS, CD Barfiwala Road, Juhu Ln, Yadav Nagar, Andheri West, Mumbai, Maharashtra 400058.