

B.Sc. Degree Program

Actuarial Science & Quantitative Finance

3 YEARS | FULL TIME



India's
Only Degree Program
to be Accredited by IFoA
for Exemptions

UNIQUE BLEND OF ACTUARIAL SCIENCE AND QUANTITATIVE FINANCE

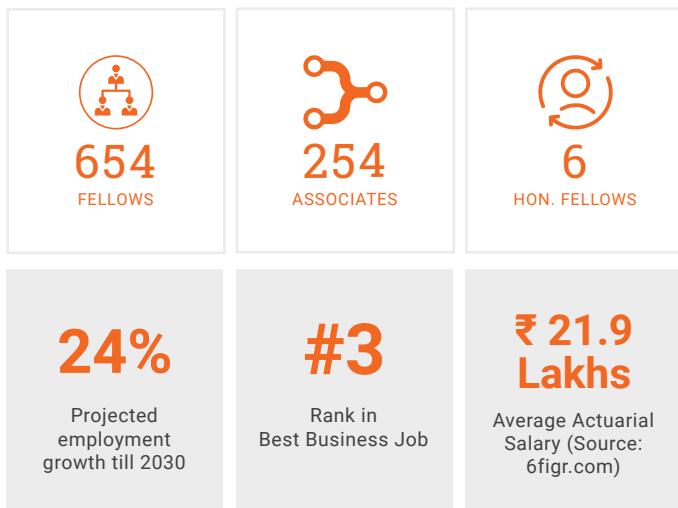
Actuarial Science

Actuarial science is a discipline that assesses financial risks in the insurance and finance fields, using mathematical and statistical methods.

Traditional Fields: Life, pensions, insurance.

Emerging Fields: Health, banking, finance, tech, climate change.

Roles: Product pricing, financial modeling, valuations, risk management, peer reviews, social security design.



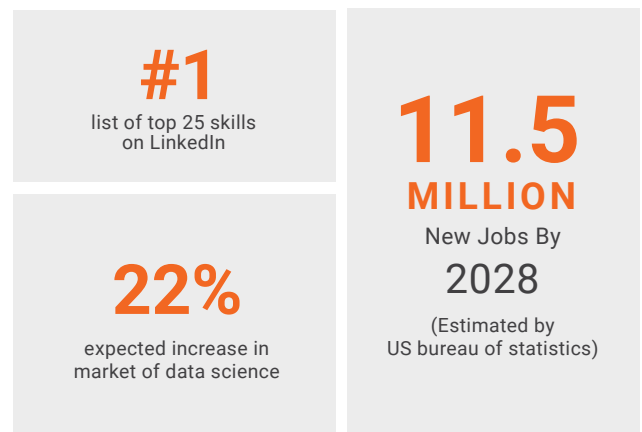
Data Science

Data science is an interdisciplinary field that uses scientific methods, processes, algorithms and systems to extract or extrapolate knowledge and insights from noisy, structured and unstructured data, and apply knowledge from data across a broad range of application domains.

Methods: Uses scientific methods, algorithms, and systems.

Emerging Fields: Healthcare analytics, cybersecurity, artificial intelligence, and big data.

Roles: Data scientists collect, analyze, and interpret large datasets.



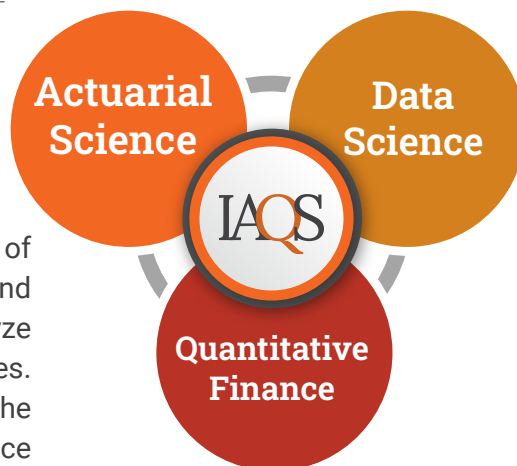
Quantitative Finance

Quantitative finance is the use of mathematical models and extremely large datasets to analyze financial markets and securities. Quantitative finance focuses on the mathematical models used to price securities and measure risk.

Methods: Uses scientific methods, algorithms, and systems.

Emerging Fields: Cryptocurrency and Blockchain, Sustainable Finance (ESG), High-Frequency Trading.

Roles: Predictive modeling, data visualization, machine learning, and decision support.



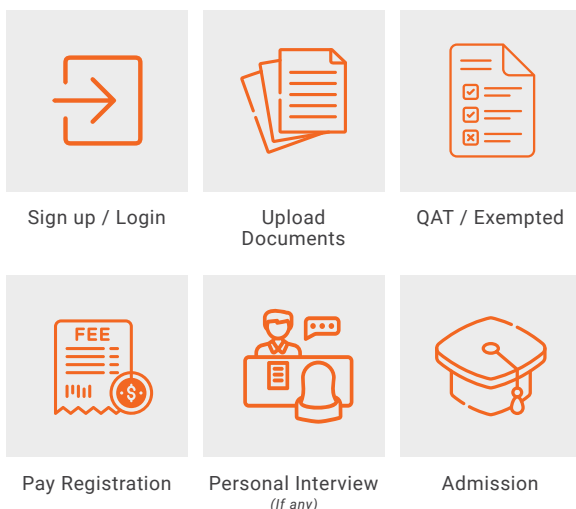
About IAQS

Founded in **2018**, **IAQS** is a premier education institute helping students to pursue Actuarial Science and Quantitative Finance studies. The institute is associated with **Patkar-Varde College, University of Mumbai** in offering the **Bachelors and Masters program**.

The Institute has curated a degree which is a unique blend of **Actuarial Science and Quantitative Finance** keeping in mind their growing interdependencies. These courses have been developed to sync education with industry realities and to impart knowledge with holistic development, while offering **exemptions for upto 6 of the IFoA Core Principle subjects - (CM1, CM2, CS1, CS2, CB1 and CB2)**.



ADMISSION PROCESS



ELIGIBILITY:

- 10 + 2 Years Of Education From Any Stream
- Cleared QAT/ ACET/ Any Actuarial Paper and Personal Interview Round

QAT:

- MCQ Based Test on Math, Stats and English (11th and 12th Grade – All Streams)

FEES STRUCTURE:

Rs. 230,000 per annum
 Fees includes Tution fee, Library fee, Exam fee, University charges, Study material fee, and Industry training fee.

Students from
15+ States
& 5 Countries



53%
MALE

300+
STUDENTS

47%
FEMALE



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

IAQS | Emerging Risks
Research Centre



Global Accreditations

How will it help?

This 3 - Year, Full Time, B.Sc. (Actuarial Science and Quantitative Finance) degree program offered by Patkar-Varde College, University of Mumbai, provides a complete solution to the various issues faced by an actuarial aspirant in India. It not only equips students with the relevant technical skills but also focuses on holistic development.



**Institute
and Faculty
of Actuaries**

Exemptions

B.Sc. (Actuarial Science & Quantitative Finance) is currently the only undergraduate program in India that offers exemptions for **upto 6 of the IFoA Core Principle subjects - (CM1, CM2, CS1, CS2, CB1 and CB2).**

Graduates from the programme who meet the IFoA's exemption threshold in the relevant university subjects will be eligible for exemption from the corresponding IFoA subjects and will not need to sit the IFoA exam for those subjects.

Depending on the modules taken and the grades obtained, completion of these degree programmes at the University of Mumbai, Patkar Varde College can lead to a recommendation for exemption.

Details available at:

Exemption > <https://bit.ly/ifo-a-exemptions>



Pathway To



Students who have completed the B.Sc. (Actuarial Science and Quantitative Finance) may be eligible for admission to the following CBE programs:



- Master of Actuarial Practice
- Master of Actuarial Studies
- Master of Applied Finance
- Master of Finance
- Master of Financial Management
- Master of Statistics

Details available at:

<https://bit.ly/ANU-CBE>



- Actuarial Management
- Actuarial Science
- Actuarial Science With Business Analytics

Details available at:

<https://www.bayes.city.ac.uk/>



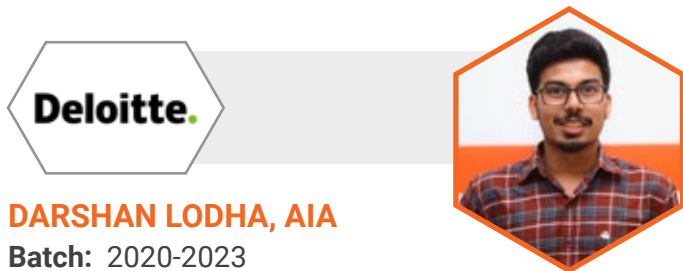
- MSc in Actuarial Management
- MSc in Actuarial Management with Data Science
- MSc in Actuarial Science and Management

Details available at:

<https://www.hw.ac.uk/>

Alumni Achievements: Paths to Success

Explore the inspiring journeys of how our program has shaped their success and envision your own future with us!

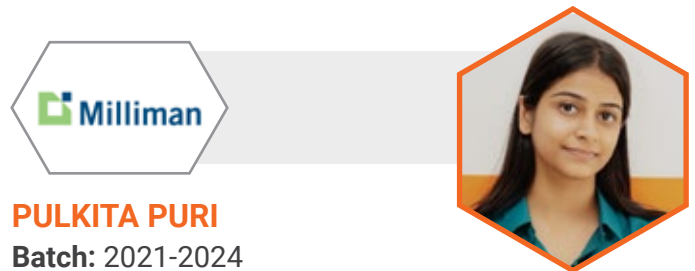


DARSHAN LODHA, AIA

Batch: 2020-2023

Specialization: Actuarial Science

Starting with actuarial science at IAQS in 2020, he has cleared 12 actuarial papers. Starting as an intern at Deloitte to advancing to Assistant Manager, where he manages risk projects.



PULKITA PURI

Batch: 2021-2024

Specialization: Actuarial Science

While studying, she secured two internships and her efforts earned her six course exemptions, showcasing the program's powerful alignment with real-world experience.



KAREENA TATED

Batch: 2019-2022

Specialization: Actuarial Science

She enhanced her actuarial skills with IAQS and is now pursuing actuarial exams. Over 2.5 years at Marsh, she has managed pricing projects and led complex initiatives.

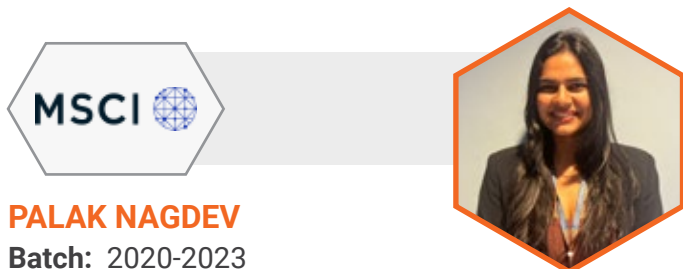


KRUNAL MODI

Batch: 2019-2022

Specialization: Quantitative Finance

While co-founding a legal-tech startup. He discovered IAQS for its versatility, broad applicability and the industry connections which unlocked new skills and diverse opportunities.

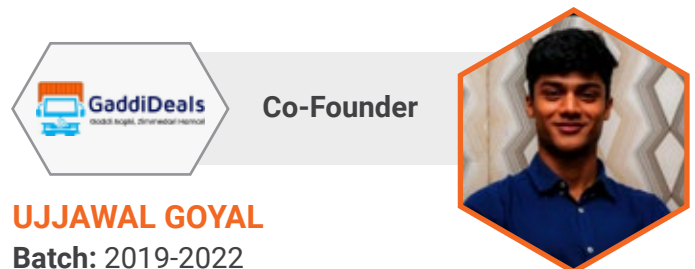


PALAK NAGDEV

Batch: 2020-2023

Specialization: Quantitative Finance

Landing multiple internships, in Mumbai and Nigeria, she gained diverse experience. Upon graduating, she joined MSCI in the Fixed Income Research Department.



UJJAWAL GOYAL

Batch: 2019-2022

Specialization: Quantitative Finance

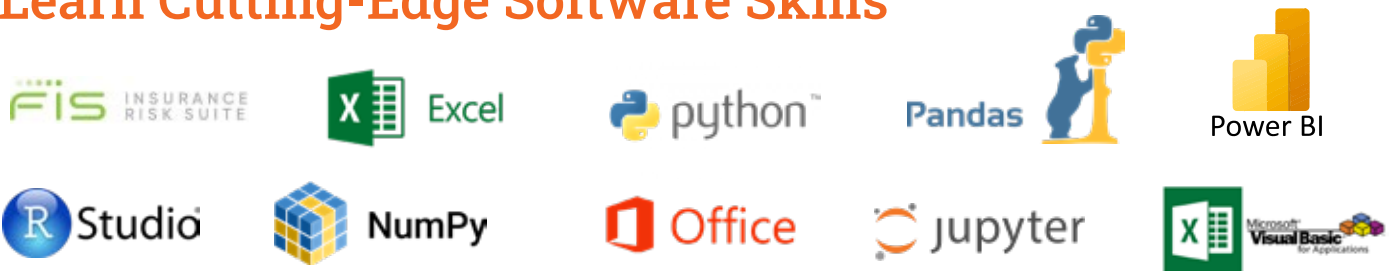
Fund Manager at Appleton Investments, he now runs a startup, Gaddideals.com. The IAQS course equipped him with essential data analysis and financial modeling skills.

Career Opportunities

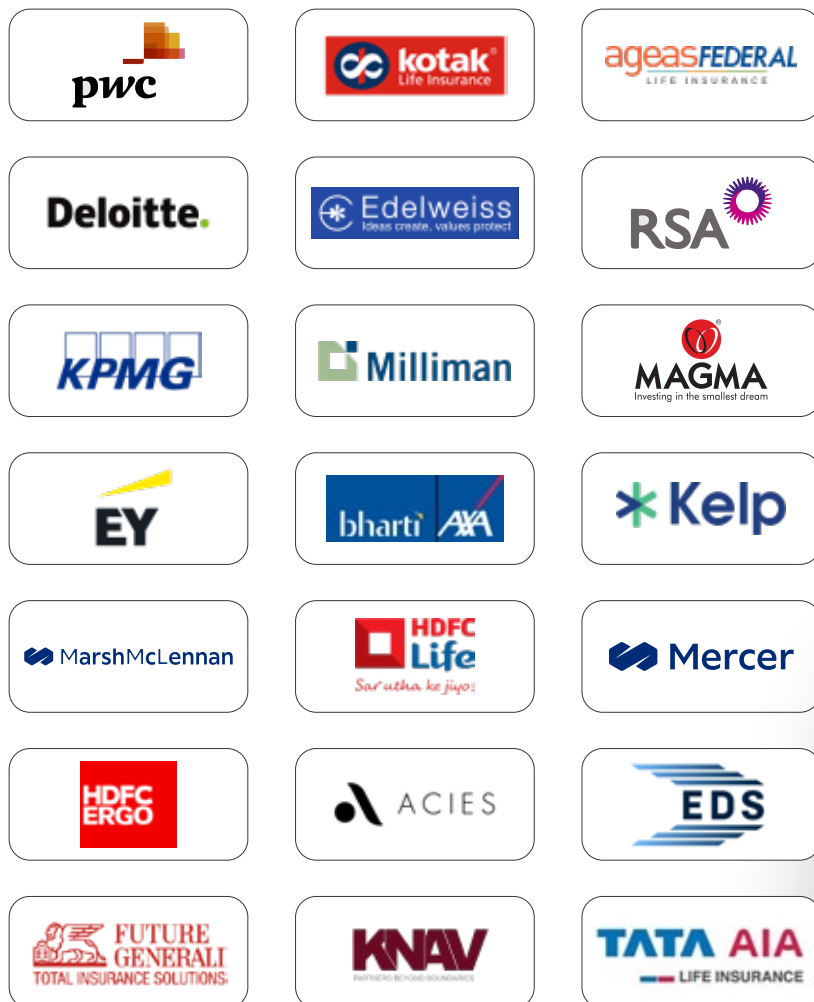
This one-of-a-kind degree aims at providing students various career opportunities like:

- | | |
|------------------------|--------------------------------|
| • Actuarial Analyst | • Equity Research |
| • Investment Banking | • Asset - Liability Management |
| • Specialist Insurance | • Financial Analysis |
| • Risk Modelling | • Private Equity |

Learn Cutting-Edge Software Skills



Build a career with our Top Recruiters



Advisory Board



Thomas Mathew

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

- Formal Chairman-in-charge & MD of LIC of India.
- Ex member - Panel of experts (Ministry of Finance, Govt. of India)
- Ex member - Quality review board (Institute of Actuaries of India)



JV Prasad

Ex-Director, Willis Towers Watson

- Ex Appointed Actuary & Vice - President - ICICI Lombard GIC
- Ex CRISIL - Structured finance Ratings.



Pratibha Jain

Founder & Managing Director, Eduabroad Consultant.

- Education Counsellor, Mumbai University affiliated colleges.



D Sivanandhan

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

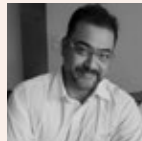
- Ex member - Central Security Cell (Reserve Bank Of India Panel)
- Ex member - Special task force, National Security Council (Prime Minister's Office).
- Recipient of the President's Distinguished Service Medal.



Nilesh Shah

Managing Director, Kotak AMC Ltd

- Ex MD CEO - Axis Capital Ltd.
- Ex Chief Investment Officer - ICICI Prudential AMC Ltd. & Franklin Templeton India.



Sauvik Banerjee

President - Products, Tech and AI at Rezolve AI
Co-founder at Yukio, Founder, MD & CEO at Cirrus AI & Ziki

- Ex VP Tata Industries, CTO TataCLiQ, SAP, Accenture, Infosys, Netsuite Author, Tedx Speaker, MIT starter hub mentor.



Rajesh Khairajani

Partner - KNAV International,
Partner - Inde Global Advisory

- Valuation expert, Speaker at Indo American Chamber of Commerce & NASSCOM
- Candidate of the American Society of Appraisers.



Tanveer Quraishi

Senior VP & Head of Advisory, Marsh
McLennan Global Services India Pvt Ltd (MMGS)

- Ex Consultant, Ernst & Young, Insurance and Actuarial Advisory Services
- Ex Senior Analyst – Actuarial, WNS Global Services



All India Institute of Local Self Government (AII LSG),
Sthanikraj Bhavan, C.D. Barfiwala Road, Juhu Galli,
Andheri (West), Mumbai – 400 058.



+91 9372777615



www.iaqs.in



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instituteofactuarialandqua128

Patkar-Varde College

S.V. Road, Piramal Nagar,
Goregaon (West), Mumbai – 400062.

IAQS



FAQs

ABOUT IAQS AND PROGRAM

Why choose IAQS?

- India's only IFoA accredited course in India which provides exemptions of upto 6 actuarial exams.
- Internship program in the course with current year stipend going upwards of 45k per month
- Dedicated placement cell for 100% placement assistance with placements going upwards of 13LPA
- International Tie ups in Australia and UK
70% subject Faculties coming from the industry

Is this a private institute?

- IAQS operates as a department within Patkar Varde College, Goregaon. The University of Mumbai confers the degree for all programs.
- B.Sc in Actuarial science and Quantitative finance degree and MSc in Actuarial science is awarded by Patkar Varde College which is affiliated with the University of Mumbai.

<https://www.patkarvardecollege.edu.in/department/undergraduate/science/actscience>

ADMISSION PROCESS

Is the student capable of pursuing Actuarial Science or Quantitative Finance?

Admission is based on a

- QAT entrance test
- Personal interview.

The mechanism is robust to identify the alignment of a student's interests and intellect with the course requirement. Additionally, the stellar education support provided by the institute ensures that students have the best shot at clearing the papers.

ACCREDITATION

Does an accredited program hold the same value as the institute exam?

Yes, it holds the same value.

What is the passing percentage in every paper to get the exemption?

IFoA exemption criterion is scoring around eligibility threshold set by the IFoA. Typically, the range is around 60% - 65%. However, the threshold is with discretion of Independent Examiners appointed by IFoA.

ELIGIBILITY / ADMISSION PROCESS

What does it take to get into IAQS, is it the stream or selection of specific subjects in 11th and 12th or any specific skill set or examination?

IAQS has a two-step entrance criterion. Irrespective of your stream choice in 11th and 12th the students can apply for QAT (Quantitative Assessment Test) which assesses them upon their 11th and 12th English, Maths and Stats skills and upon clearing the QAT the applicants move on to the personal interview round.

<https://iaqs.in/qat/>

When to take the QAT Exam?

QAT is an online computer-based photo proctor exam. The student can schedule the exam on the portal based on their preparation.

<https://admissiondesk.iaqs.in/app/#/auth/register>

Scholarship

Scholarship is need based. It has been granted to the students who are willing to study but could not afford the fees due to financial issues. Scholarships are provided once the student is enrolled with IAQS.

FACULTY

How is your faculty different?

- About 70% of the faculty comes from industry, and the rest are seasoned academicians.
- Faculties includes, Fellow actuaries, associate actuaries, CA, CFA, FRM holders and other distinct professionals.

INDUSTRY EXPOSURE, INTERNSHIPS, AND PLACEMENTS

Do you guarantee Internships and Placements?

- We have a dedicated placement team that assists our students during and even after graduation to attain the best opportunities. There are currently 24 placement partners who come to campus to hire our students. Latest Placement report is available on

www.iaqs.in

MEET THE ENTRY REQUIREMENT

Semester 1

- Probability and Statistics - 1
- Data Analytics - Calculus
- Financial Mathematics
- Business Finance - 1
- Life Insurance - Principles, Products and Practices
- Problem Solving & Critical Thinking
- Generative AI
- Indian Knowledge System
- Physical Education

Semester 2

- Probability and Statistics – 2
- Application of Financial Mathematics using Excel
- Data Analytics - Numerical Methods and Algebra
- Financial Markets
- Business Finance - 2
- Non-Life Insurance - Principles, Products, Practices
- Application of IT- Basics of Excel
- Prompt Engineering 101
- Yoga

Semester 3

- Statistical and Risk Modelling-1
- Portfolio Theory and Security Analysis
- Data Analytics - Applications of IT – R Basics
- Business Economics - Micro
- Introduction to Derivatives and Financial Markets
- IKS - Vedic Maths
- Career Development: Resume Building and Networking using LinkedIn
- E-Learning
- Project Work with Acies

Semester 4

- Statistical and Risk Modelling-2
- Financial Engineering-1
- Fixed Income Products
- Data Analytics - Application of IT-Python
- Business Economics - Macro
- Advance Application of Excel
- Career Development: Interview Preparations
- E-Learning
- Engagement project

MANDATORY INTERNSHIP

Choose your area of Specialization

Semester 5

- Statistical Modelling in R
 - Business Studies **OR** Emerging Risks and Challenges in 21st Century
 - **Elective A: Core - Actuarial**
 - Statistical & Risk Modelling - 3
 - Pricing & Reserving for Life Insurance Products - 1
 - Model Development & Analysis
 - **Elective B: Core - Quant Finance**
 - Risk Management & Investment Management - 1
 - Financial Engineering - 2
 - Financial Modelling
- Research Project / Internship / Minor Project / Field project / Project with NGO*

Semester 6

- Networking using social media
 - Predictive Analytics & Machine Learning **OR** Data Visualisation using Power BI
 - **Elective A: Core - Actuarial**
 - Statistical & Risk Modelling - 4
 - Pricing & Reserving for Life Insurance Products - 2
 - Application of Actuarial Software
 - **Elective B: Core - Quant Finance**
 - BASEL
 - Blockchain Fundamentals: Technology and Applications
 - Application of Financial Trading Software
- Research Project / Internship / Minor Project / Field project / Project with NGO*



CONGRATULATIONS! YOU ARE A GRADUATE

**Value Added - Subject contributing to holistic development of the students, apart from the course specific subjects*



At IAQS, our courses have been developed to sync education with industry realities, compliment professional qualifications and designed to impart knowledge coupled with holistic development.

- Akash Rughani
Program Director