

DUBAI • MUMBAI • SINGAPORE • SYDNEY



MESSAGE FROM THE DEAN

DEAR STUDENT,

I take immense pleasure in introducing you to SP Jain School of Global Management whose undergraduate program is truly innovative, path-breaking, and ahead of its time. The case in point is the degree program in Artificial Intelligence that we plan to offer at the UG level. Al is everywhere. By harnessing the power of AI, organisations have amazing growth potential, and the opportunities to enhance various business areas with AI are expanding on an exponential level. We're now in an era where organisations are truly entrenched into the 4th Industrial Revolution that is spearheaded by disruptive technologies such as AI, Machine Learning, Blockchain, 3D Printing and Robotics. The world is facing the onslaught of technology in its myriad ways so much so that politics, government, collaborations, trade, and commerce and even our day-to-day life have all changed beyond recognition.

Under this environment, the role of a manager becomes that of one who can think on the fly, improvise to improve and merge resourcefulness with enterprise. It is with these needs in mind, that the Bachelor's degree in Artificial Intelligence (BAI) has been carefully crafted to provide the student with the arsenal that is needed to tackle the onslaught of business and competition and emerge victorious. In this degree program offered by SP Jain, you will examine several key forces that enable AI in business strategies including Algorithms, Networks, and data to gain a deeper understanding of how businesses in a wide variety of industries can get the most out of this exciting technology. Throughout the course, students will see real-world examples of successful companies such as Google, Toyota and Ford use AI to deal with the competition in new, innovative and creative ways, and also hear from industry experts about how AI is truly shaping the present and the future in various industries.

Do you want to be a game-changer?

Do you want to grab the proverbial bull by the horns and keep the learning constant and stay in the game?

Do you want to learn cutting-edge frameworks, technologies, and AI strategies from top-rated faculty and industry experts who teach practical, industry-relevant courses?

Do you want to learn what it takes to become a Business-ready manager from day zero? If the answer is "YES" to these questions, welcome to SP Jain and welcome to the BAI program. This is where we align academic elegance with business relevance. Our objective is to completely transform you, the student, to become a transformational leader and offer you extraordinary opportunities to interact with global business leaders and thinkers, and make deep and lasting connections with your peers who come from more than 35 countries. Our goal is for you to "aspire to inspire" and empower you to be the best you can be.

YES, we are different! Hence, we want to make and deliver that difference and provide an enriching experience. We look forward to welcoming you to one of our vibrant campuses or perhaps drop in online.

DR VAIDYANATHAN JAYARAMAN

Dean – Undergraduate Programs Professor – Supply Chain, Data Sciences & Analytics, S P Jain School of Global Management



YOUR GATEWAY TO A REWARDING CAREER IN AI

From self-driving vehicles and facial recognition to virtual assistants, personalised shopping, and more, Artificial Intelligence (AI) is increasingly shaping our world today. How would you like the opportunity to develop AI solutions that could transform our future?

The Bachelor of Artificial Intelligence (BAI) is a 4-year full-time undergraduate degree program designed to help you develop your competency in the field of AI, including its foundations in mathematics and computer science, its most important theoretical and applied topics, and its use in solving real-world business problems. The program will equip you with the knowledge and skills you need to successfully apply AI in a practical context.

You will be mentored by highly experienced faculty and industry experts who are leaders in this emerging field, and gain hands-on experience through simulations, industry projects, and activities at the SP Jain Robotics Lab.

ON SUCCESSFUL COMPLETION OF THE PROGRAM, YOU WILL:

- Understand, develop and execute disruptive AI technologies
- Learn to choose appropriate tools and techniques for the application and adoption of AI technologies in business
 and society, and analyse its philosophical and ethical implication
- Be equipped with both technical and business-oriented soft skills which are highly in demand among employers; these include quantitative, analytical, programming, automation, decision-making, problem-solving, innovation, communication, & teamwork
- Earn an undergraduate degree accredited by the Tertiary Education Quality and Standards Agency (TEQSA), Australia's national higher education regulator, and join SP Jain's global alumni network of 8,500+ members
- Be well-positioned to launch your career in AI, apply for roles across industries and sectors, become an entrepreneur or pursue an advanced degree in AI



PROGRAM STRUCTURE & CURRICULUM

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- The program brings together units in the foundations of AI and its applications to equip you with key quantitative, analytical, problem-solving, decision-making, innovation and communication skills.
- Gain in-depth knowledge of AI technologies and practical experience through an Industry/Entrepreneurship Project and two Capstone Industry Research Projects.
- Choose an elective from E-Commerce, Financial Services, Healthcare or Manufacturing and align your learning with your career goals.
- Learn to understand, execute and develop disruptive Al technologies; choose appropriate tools and techniques for the application and adoption of Al technologies in business and society, and analyse its philosophical and ethical implications.

PROGRAM ARCHITECTURE

To be eligible to graduate with the BAI degree from SP Jain, students must complete 37 units.

Core units:	80
Electives:	6
Industry / Entrepreneurship Project:	3
Capstone Industry Research Project:	15
Total:	104

CURRICULUM

S.NO	COURSE CODE	SUBJECT NAMES	TIME TABLED HOURS	PRIVATE STUDY	CREDITS	CORE/ ELECTIVE	PRE- OR CO-REQUISITES
	0						
Year 1	Semester 1						
1	BAI MAT 101	Mathematics for Data Scientists	36	36	3	Core	NIL
2	BAI MAT 102	Introduction to Statistics and Probability	36	36	3	Core	NIL
3	BAI CSC 101	Introduction to Computer Programming	36	36	3	Core	Mathematics for Data Scientists
4	BAI DSC 101	Introduction to Databases	36	36	3	Core	Mathematics for Data Scientists
5	BAI BUS 101	Writing and Communication	12	12	1	Core	NIL
ΤΟΤΑΙ	L		156	156	13		
Year 1	Semester 2						
6	BAI MAT 103	Linear Algebra	36	36	3	Core	NIL
7	BAI MAT 104	Calculus	36	36	3	Core	Mathematics for Data Scientists
8	BAI DSC 102	Introduction to Data Science	36	36	3	Core	Introduction to Computer Programming
9	BAI CSC 102	Algorithms and Data Structures	36	36	3	Core	Introduction to Computer Programming
10	BAI ECO 101	Economics and Business in the Digital Age	12	12	1	Core	NIL
ΤΟΤΑΙ	L		156	156	13		
Year 2	Semester 3						
11	BAI MAT 205	Advanced Calculus	36	36	3	Core	Calculus
12	BAI QTT 201	Statistical Data Analysis	36	36	3	Core	Introduction to Statistics and Probability
13	BAI MAT 207	Advanced Linear Algebra and Applications	36	36	3	Core	Linear Algebra
14	BAI CSC 202	Programming for Analytics	36	36	3	Core	Algorithms and Data Structures
15	BAI HRM 201	Design Thinking	12	12	1	Core	NIL
TOTA	L		156	156	13		

Year 2 Semester 4

16	BAI CSC 203	Machine Learning	36	36	3	Core	Introduction to Data Science, Advanced Linear Algebra and Applications, Advanced Calculus, Statistical Data Analysis
17	BAI CSC 204	Introduction to Artificial Intelligence	36	36	3	Core	Introduction to Data Science, Advanced Linear Algebra and Applications, Advanced Calculus, Statistical Data Analysis
18	BAI CSC 205	Software Engineering	36	36	3	Core	Algorithms and Data Structures
19	BAI CSC 206	Imperative and Functional Programming	36	36	3	Core	Algorithms and Data Structures
20	BAI PRO 201	Introduction to Information Technology Project Management	12	12	1	Core	NIL
ΤΟΤΑ	L		156	156	13		
Year 3	3 Semester 5						
21	BAI CSC 301	Reasoning and decision making under uncertainty	36	36	3	Core	Introduction to Artificial Intelligence
22	BAI CSC 302	Knowledge Representation and Logic	36	36	3	Core	Introduction to Artificial Intelligence
23	BAI CSC 303	Neural Networks and Deep Learning	36	36	3	Core	Machine Learning
24	BAI CSC 304	Applications of AI in Business and Government	36	36	3	Core	Introduction to Artificial Intelligence
25	BAI CSC 305	Visual Exploration and Analytics of Data	12	12	1	Core	NIL
ΤΟΤΑ	L		156	156	13		
Year	3 Semester 6						
26	BAI PHI 301	AI and Society: Ethics, Transparency, Regulation, & Governance	36	36	3	Core	Introduction to Artificial Intelligence
27	BAI CSC 306	Natural Language Processing	36	36	3	Core	Introduction to Artificial Intelligence, Neural Networks and Deep Learning
28	BAI CSC 307	Machine Vision and Robotics	6	36	3	Core	Introduction to Artificial Intelligence, Neural Networks and Deep Learning
29	BAI CSC 308	Visual Presentation of Data	12	12	1	Core	NIL
ΤΟΤΑ	L		120	120			
Fitho	of the following tw	o projects					
20			26	26	2		Elective Semesters 1 5
30		Entropropeurchin Project	36	30 36	ა ვ		Elective Semesters 1-5
30 TOT			30	30	5		
TOTA	L		36	36	13		

Year 4 Semester 7

31	BAI CSC 401	Theoretical Computer Science	36	36	3	Core	Algorithms and Data Structures		
32	BAI CPP 401	Capstone Project 1	36	36	3	Core	Semesters 1-6		
33	BAI SCI 401	Cognitive Psychology	12	12	1	Core	NIL		
Total			84	84					
"Two u	nits from any one from	the following four tracks: (All tracks may not be offered conditional on s	sufficient student er	nrolment)"					
Track 1	E-Commerce OR								
34	BAI CSC 402	Recommendation Engines for Marketing Applications	6	36	3		Elective Machine Learning		
35	BAI CSC 403	Computational Advertising	36	36	3		Elective Introduction to AI		
Track 2 Financial Services OR									
34	BAI CSC 404	AI-based Credit and Fraud Analysis	36	36	3		Elective Machine Learning		
35	BAI CSC 405	Machine Learning for Algorithmic Trading	36	36	3		Elective Machine Learning		
Track 3 Healthcare OR									
34	BAI CSC 406	Medical and Clinical Applications of AI	36	36	3		Elective Machine Learning		
35	BAI CSC 407	Bioinformatics	36	36	3		Elective Introduction to AI		
Track 4 Manufacturing									
34	BAI CSC 408	Predictive Maintenance	6	6	3		Elective Machine Learning		
35	BAI CSC 409	Industrial Automation	36	36	3		Elective Introduction to AI		
Total			72	72	13				
Year 4 Semester 8									
36	BAI PHI 401	Philosophy and Ethics of Artificial Intelligence	12	12	1	Core	Introduction to Artificial Intelligence		
37	BAI CPP 402	Capstone Project 2	144	144	12	Core	Capstone Project 1		
Total			156	156	13				
TOTAL				1248	104				



GAIN HANDS-ON EXPERIENCE

Within the classroom, our emphasis is on engaged learning, with our faculty using a variety of interactive techniques, including case studies, simulations, projects, laboratory work, quizzes and exercises.

For example, you will gain practical experience and exposure to multinational IT and AI business environments by completing an Industry/Entrepreneurship Project and two Capstone Industry Research Projects. You will also have the opportunity to experience hands-on learning in our Robotics Lab and get trained to:

- Program a modern micro controller
- · Operate and interface its peripheral devices and sensors
- Apply the basic concepts of wheeled locomotion, motion sub-system control, motion trajectory planning, and robotic implementation



ASSESSMENT METHODS

SP Jain uses a system of continuous student evaluation rather than a single end-of-semester final examination. The assessment methods for the BAI program include case study, simulation exercises, reflective assignment reports, group project and classroom presentation, quizzes, problems and exercises, industry projects, laboratory work, research essay, and final examination. To learn more about our assessment methods, please refer to the Student Handbook.

GRADUATE ATTRIBUTES

S P Jain's programs are designed to equip our graduates with the much needed and holistic attributes, including:

- Knowledge of Business, Management and Emerging Technologies
- Research and Business Intelligence
- Problem Solving and Decision-Making
- Creativity and Innovation
- Intercultural Competence/Communication
- Teamwork
- Global Citizenship/Ethics (Collaborate, Negotiate and Resolve Conflicts)

PROGRAM LEARNING OUTCOMES

On successful completion of the BAI program, you will graduate with the skills and knowledge that validate the following learning outcomes:

1. KNOWLEDGE OF ARTIFICIAL INTELLIGENCE AND RELATED TECHNOLOGIES

Apply coherent and comprehensive knowledge of the fundamentals of Artificial Intelligence, and related technologies of computer and data sciences, and their applications in diverse contexts and domains of business and society.

2. CRITICAL THINKING, DESIGN THINKING AND PROBLEM-SOLVING SKILLS

Be equipped with critical thinking, design thinking, and problem-solving skills to identify and provide innovative solutions to complex problems in a variety of contexts using Artificial Intelligence technology

3. COMMUNICATION AND TEAM SKILLS

Acquire communication and teamwork skills that will enable you to communicate coherently and clearly the benefits of Artificial Intelligence-based technology solutions.

4. COMPETENCE IN TECHNOLOGICAL APPLICATIONS

Apply your knowledge and skills in Artificial Intelligence and related technologies to create solutions, applications, and products for business use and operate with a high level of personal autonomy and accountability in doing so.

5. ETHICS, PROFESSIONALISM, AND SOCIAL RESPONSIBILITY

Demonstrate integrity, ethical conduct, professional accountability, and a sound awareness of regulatory requirements and professional practices in the use of Artificial Intelligence in diverse domains of business and society.

FACULTY

Our community of international faculty is dedicated to creating an engaging, rigorous, and practical educational experience for you. You will learn new knowledge about Artificial Intelligence (AI), Applied AI, Data Science, Programming, Mathematics and Statistics, Big Data Analysis, Machine Learning, Neural Networks, Deep Learning and more which will inspire you to appreciate, accept and adapt to working in a rapidly changing business environment.

ABHIJIT DASGUPTA

Assistant Professor, Director - Bachelor of Data Science and Big Data & Visual Analytics PhD in Customer Experience Management, Dr RML Avadh University, India

Area of Specialisation: Information Technology

ADITYA NARVEKAR

Assistant Professor - Data Science MS in Computer Science, Drexel University, USA; MBA, NYU Stern School of Business, USA

Area of Specialisation: Information Technology

AK CHAKRABORTY

Adjunct Faculty PhD, Indian Institute of Science, India **Areas of Specialisation:** Statistics and Statistical Machine Learning

ANISH ROY

Adjunct Faculty PhD, Indian Institute of Science, Bangalore, India Area of Specialisation: Information Technology

ARUN CHATTERJEE

Adjunct Faculty PhD, Indian Institute of Management - Bangalore, India **Area of Specialisation:** Marketing Analytics

ASHOKA CHOUDHURY

Adjunct Faculty MPhil in Mathematics, School of Mathematical Sciences, Sambalpur University, India

Area of Specialisation: Mathematics

BIJAL OZA

Director (Global) - Counseling and Coaching Center PhD in International Psychology with a special focus on Organisations and Systems - The Chicago School of Professional Psychology, USA

Area of Specialisation: Management

CHRISTOPHER ABRAHAM

Professor and Head of Campus (Dubai) PhD, Business Administration, UK Areas of Specialisation: HR & Organisation Behaviour

DEBASHIS GUHA

Associate Professor, Director - Machine Learning PhD, Columbia University, USA

Areas of Specialisation: Machine Intelligence and Deep Learning

JACINTA DSILVA

Adjunct Faculty PhD in Marketing, Coventry University, Coventry, UK Area of Specialisation: Marketing

JOHN LODEWIJKS

Professor - Economics and Vice President - Academic Area of Specialisation: Economics

JOHNNY VALBUENA SOLER

Adjunct Faculty Doctor of Philosophy, The Australian National University (ANU) Areas of Specialisation: Mathematics & Information

Areas of Specialisation: Mathematics & Information Technology

JOSEPH KONSTAN

Adjunct Faculty

PhD in Computer Science, University of California, USA Areas of Specialisation: Recommender Systems and HCI

JYOTHSNA APPAIAH SINGH Adjunct Faculty Doctor of Philosophy: Marketing, University of Gloucestershire, UK

Area of Specialisation: Marketing

KOILAKUNTLA MADDULETY

Associate Professor, Deputy Director - Doctor of Business Administration PhD in Quality Management System, Shivaji University, India Areas of Specialisation: Statistics and Operations

Research

LAWRENCE POHLMAN Adjunct Faculty

PhD in Finance, Columbia Business School, USA Area of Specialisation: Financial Technology

MONICA GALLANT

Associate Professor – Accounting Doctorate of Education, University of Southern Queensland

Areas of Specialisation: Finance & Accounting

NARASIMHA K

Adjunct Faculty MTech in Computer Science, Indian Institute of Technology - Bombay, India **Areas of Specialisation:** DevOps, Data Structures & Algorithm

NAVNIT BELUR

Adjunct Faculty MS in Computer Science (Specialisation in Machine Learning), Georgia Institute of Technology, USA

Area of Specialisation: IT/E-Business

NITIN PATWA

Associate Professor, Director – Simulation and Deputy Director of Undergraduate Programs (Dubai) Master of Financial Analysis & Control, JNV University, India

Areas of Specialisation: Probability & Statistics

NITIN SHARMA

Adjunct Faculty MSc in Information Technology, Annamalai University, India Areas of Specialisation: Cloud and Big Data

PRASAD PATIL

Adjunct Faculty Master of Science in Industrial and Systems Engineering, State University of New York at Binghamton, USA

Areas of Specialisation: Mathematics & Quantitative Analytics

SADIA RIAZ

Associate Professor (IT and Research Methods) PhD (Information Technology), Universiti Teknologi, PETRONAS, Malaysia

Areas of Specialisation: Information Technology & Research Methods

SARAH COLDWELL

Adjunct Faculty PhD in International Psychology, The Chicago School of Professional Psychology, USA

Area of Specialisation: Communication

SUCHISMITA DAS

Assistant Professor PhD, Indian Institute of Science Education and Research (IISER), India

Areas of specialisation: Mathematics and Statistics

SUNIL D LAKDAWALA

Adjunct Faculty PhD, Yale University, USA Areas of Specialisation: Data Warehousing, Data Mining

SWAGOTO CHATTERJEE

Adjunct Faculty PhD in Marketing, Indian Institute of Management -Bangalore, India **Areas of Specialisation:** Marketing Analytics, Business Analytics

UMESH KOTHARI

Adjunct Faculty Masters of Management, Willamette University, USA **Area of Specialisation:** Marketing

VAIDYANATHAN JAYARAMAN

Dean - Undergraduate Programs PhD in Operations and Supply Chain Management, The Ohio State University, USA

Areas of Specialisation: Logistics & Operations and Data Science



GLOBAL CAREER OPPORTUNITIES

The rapid growth of AI technologies and their adoption across industries, including E-Commerce, Financial Services, Healthcare and Manufacturing, has led to an increase in demand for trained AI professionals. According to 'The Future of Jobs 2018' report by the World Economic Forum, the evolution of machines and algorithms in the workplace could create 58 million net new jobs by 2022.

On successfully graduating from the BAI program, you will be wellpositioned to apply for roles such as AI Engineer, Machine Learning Researcher, Deep Learning Engineer, NLP Engineer, AI Architect, Data Scientist, AI Researcher, Automation Tester, NLP/AI Analyst and more. Our Career Services teams will assist you with personalised career planning, resume writing, one-to-one guided interviews and oncampus recruiting opportunities.

You will also be equipped to launch your start-up or pursue an advanced degree in Artificial Intelligence.

ADMISSIONS

ELIGIBILITY

ENGLISH LANGUAGE ELIGIBILITY REQUIREMENTS

- All applicants must have completed their education as detailed above in English and must provide certified evidence to the School.
- Applicants who have not completed their most recent education qualifications in English are required to take any one of the following recognised formal English language tests and obtain currently valid minimum overall scores as below:
- IELTS score of 6; or
- TOEFL iBT score of 60; or
- PTE score of 50

International applicants (including those who have completed their most recent education qualifications in English) who are undertaking study at our Sydney campus may need to meet the English language test requirements detailed by the Australian Government to obtain their student visas. For more information, please click here.

OPTIONAL

Applicants may optionally submit their SAT (Scholastic Aptitude Test) or ACT (American College Testing) scores for consideration (SAT College Code - 7579 and ACT College Code - 1473)

ACADEMIC ELIGIBILITY REQUIREMENTS

All applicants (domestic and international) are expected to have completed, or about to complete, a minimum of 12 years of schooling demonstrated by one or more of the following:

- Completion of an Australian Senior Secondary Certificate of Education authorised by a relevant state-based issuing agency with an Australian Tertiary Admission Rank (ATAR) or its interstate equivalent of 70 or above; or
- Completion of an accredited vocational education and training (VET) qualification at Diploma or Advanced
 Diploma level completed at an ASQA registered training organisation (RTO); or
- All India Senior School Certificate (issued by CBSE) or the India School Certificate (ISC) with a score of 60% or the Higher Secondary Certificate (HSC) Year 12 exam from the Indian State Board with a score of 70% or more; or
- International Baccalaureate Diploma (IB) with a score of 24 or more; or
- Completion of an international qualification where the content, level and intended outcomes are deemed to be equivalent to any of the above through official qualification recognition register or mapping of equivalence by the School.
- Preparation in Mathematics equivalent to IB Mathematics Higher Level
- In lieu of above, completion of minimum years of 11 years of schooling for the nine Commonwealth of International States (CIS) countries subject to a minimum CGPA score of 4.00 out of 5.00 issued by the National Board in these countries.

HOW TO APPLY?

STEP 1: Submit your application online

STEP 2: Appear for an Entrance Test. We accept SAT, ACT, S P Jain Entrance Test and JEE (Main) scores. In addition, select applicants may be required to take a math test developed and administered by S P Jain to assess their numerical skills. For applicants with Indian certifications, this requirement will be waived if the applicant has scored 75% or more in recognised Indian State Board Exam or Central Board exams (e.g. ICSE / CBSE).

STEP 3: Appear for further evaluation and personal interviews. The School establishes a shortlist of potential applicants based on their:

- Past academic performance and other achievements;
- English language proficiency to ensure successful participation; and
- Outcomes and scores of aptitude tests.

All shortlisted applicants will be notified in writing by the School that their application has proceeded to the shortlist for admission.

As part of the final stage of applicant evaluation, all shortlisted applicants will be required to write two essays and undertake a personal interview with a member of the School's selection committee at one of the School's campuses or via Skype/Zoom. The essays and interview are designed to assess the applicant's communication skills, aptitude and knowledge.

STEP 4: A decision regarding the outcome of your application will be emailed with 5-7 working days of the personal interview.

Please visit the corporate website for more information on the course commencement, intakes and course calendar.

IMPORTANT LINKS:

For more information about the admission process, please click here. To learn more about the fee and other applicable charges, please click here. To view our detailed Admissions Policy, please click here.



ABOUT S P JAIN

S P Jain School of Global Management (S P Jain) is an Australian business school with campuses in Dubai, Mumbai, Singapore and Sydney.

We relentlessly strive to reimagine business education and offer innovative courses in dynamic, world-class cities. Our efforts have been recognised by highly regarded global rankings that include:

AndreySuslov

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WORLD'S TOP 15

<u>Forbes</u> <u>The Best International MBAs:</u> <u>1-Year Programs (2019-21)</u>

100 WORLD'S TOP 100

<u>The Economist</u> Full-Time MBAs (2015)

#1

DUBAI'S #1

<u>Global Brands</u> <u>Best Business School (2015)</u>

#4 WORLD'S #4

<u>Times Higher Education –</u> <u>Wall Street Journal</u> <u>1-year MBAs (2018-19)</u>

50 WORLD'S TOP 50

<u>Poets & Quants</u> Best International MBAs (2015)

100 WORLD'S TOP 100 Financial Times

Financial Times Global MBA Rankings (2011 & 2012)

SYDNEY

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The program is not accredited or approved by All India Council for Technical Education (AICTE) or any regulatory body in India.