



ENGINEER YOUR MIND
FOR A **WORLD** OF
POSSIBILITIES

Prospectus

FIRST DEGREE (B.E.)
PROGRAMMES

2025-2026



YEARS OF EXCELLENCE



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BITS Pilani

Pilani | Dubai | Goa | Hyderabad | Mumbai
An Institution of Eminence

Birla Institute of Technology and Science, (BITS Pilani), is a world-renowned Indian Institute of Higher Education. Its flagship campus in Pilani, Rajasthan, received deemed university status in 1964 under Section 3 of the UGC Act. From its early years, the institute, with the help of Ford Foundation grant, collaborated with MIT (USA) and adopted the institute's best practices. Since then, BITS has grown and now boasts campuses in Dubai, Goa, Hyderabad and Mumbai.

BITS Pilani consistently ranks as the **No.1 private engineering institution in India** in media rankings, such as Education World, India Today, etc., and is the highest-ranked non-government institute in many of these surveys. It has also been granted the status of **Institute of Eminence** by the Ministry of Education, Government of India. Further affirming its commitment to excellence, BITS Pilani was accredited with **Grade A++** in November 2024 by the **National Assessment and Accreditation Council (NAAC)** for a period of 5 years, recognizing its outstanding quality status. With over 50,000 students enrolled across all its campuses, BITS Pilani offers degrees at all levels in Engineering, Sciences, Management, and Pharmacy.

Our legacy of excellence has been shaping professionals to excel beyond every parameter since inception. Today, our alumni body is a vast and thriving community of technocrats, successful entrepreneurs, renowned scientists, head of organizations, and leaders of society. We take great pride in the achievements of our alumni and are continually inspired by their success. Under the dynamic leadership of Chancellor, Dr. Kumar Mangalam Birla & Group Vice Chancellor, Prof. V Ramgopal Rao, BITS Pilani continues to scale greater heights.



Dr. Kumar Mangalam Birla
Chancellor, BITS Pilani



Prof. V Ramgopal Rao
Group Vice Chancellor, BITS Pilani



BITS Pilani, Dubai Campus

Experience a legacy of excellence in engineering education with BITS Pilani Dubai Campus (BPDC) - A top-ranked institution approved by Ministry of Education, Government of India and University Grants Commission (UGC) and permitted by Knowledge and Human Development Authority (KHDA), Dubai.

BPDC is committed to academic rigor, innovation, industry engagement, and a value-led approach to teaching. This commitment has earned us a 5-star rating from the KHDA in partnership with QS, based on four core categories of teaching, research, employability, and internationalization.

Immerse yourself in a vibrant campus life and receive quality education from highly qualified and dedicated faculty. The campus at Dubai is both teaching and research intensive. Our expert faculty and cutting-edge curriculum equip our students with a distinct blend of knowledge and skills, making them stand out from the rest.

BPDC is the ideal platform for students who want to make a tangible difference in the world. Our faculties are committed to delivering a comprehensive education that embraces the newest technologies and the latest advancements in the field. Our 7.5 months of industry experience to students through the Practice School, present market-ready graduates who are sought after by the industry!

Creative industry solutions have led to more than 50 start-ups in the last 5 years with some joining the league of unicorns. Year after year, many of our graduates continue to pursue higher education in Top Universities around the globe.

We prioritize well-rounded personality development with opportunities for co-curricular and extra-curricular activities, leading to numerous national and international awards for our students.

*Ready to set yourself on a path of lifelong success?
Choose BITS Pilani Dubai Campus!!*





Prof. Souri Banerjee

**Director
BITS Pilani, Dubai Campus**

Message from the DIRECTOR

Welcome to the Dubai campus of the Birla Institute of Technology and Science (BITS Pilani), Pilani, Rajasthan, India.

Located in the International Academic City, Dubai, the BITS Pilani, Dubai Campus (BPDC) was established in 2000 as the first offshore campus of any Indian institution of higher learning. Over the years, BPDC has grown tremendously and turned into a fully integrated international campus offering three-tier university education bachelors, masters, and doctoral degrees with residential facilities on campus for students.

An institution is only as good as its people are, and onboarding excellent human resources to facilitate and guide learning is something that BITS Pilani is committed to. The Dubai campus carries forward the dedication of the institute to achieve academic and instructional excellence by providing its students with a world-class education. The education combines academic rigor, intellectual stimulation, state-of-the-art technology and facilities, and all-round personality development to deliver values, capabilities, and skills for a global and knowledge-based economy. The broad-based education system offers a high degree of flexibility in the form of dual degrees, electives, and minors to cater to the diverse interests of students and current and future career opportunities. The Practice School, a distinctive hallmark of the BITS Pilani system, is built into the academic programme and enables every student to spend 7 months with an industry partner and imbibe professional skills and experience in applying theoretical knowledge to solve authentic, real-world problems.

The student community, drawn from various parts of the world as well as India, has grown and will continue to grow in strength and diversity. The dream to make a creative, multidisciplinary institution that delivers quality education, original research, and industry-academia linkages is what drives the academic community here. In our various endeavors, we thrive to inculcate attributes of teamwork, integrity, creativity, leadership, and societal responsibility, leading to the development of a well-rounded personality.

BITS Pilani alumni are spread globally and have distinguished themselves in their chosen careers. They serve as our valuable ambassadors and attest to our commitment to nurture individuals and groom talent in pursuit of excellence.

I invite you to explore our website and campus and set yourself on the path of innovation, achievement, and leadership by becoming part of the BITS Pilani, Dubai campus community.

WHY CHOOSE BITS PILANI DUBAI CAMPUS?



World-Class Curriculum & Faculty

We offer a world-class curriculum that is broad-based, with unique options such as 7.5 months Practice School (Internship) or Thesis and a high degree of flexibility in the form of electives, minors, dual degree and more to cater to the diverse interests of students and broaden their education beyond a single area of study. The Faculty is highly experienced with doctoral and postdoctoral degrees from reputed universities worldwide.



International Exposure

Dubai, an international business & education hub is a strategic base to hundreds of global companies and universities and offers plenty of opportunities to students to interact with professors, industry experts and seasoned professionals across the spectrum. It is home to more than 200 nationalities & offers the best healthcare, shopping, sport & entertainment and leisure opportunities in the world.



Stellar Ratings

Our institution is ranked as the top private university in India in several media rankings reflecting our commitment to quality. Our recognition in the Global University Rankings of both THE and QS, as well as a prestigious 5-star rating from the Knowledge and Human Development Authority (KHDA), based on Teaching, Research, Employability, and Internationalization, sets us apart as a premier destination for education.



All Round Development

We prioritize student development in all areas. Our curriculum seamlessly integrates soft skills through engaging presentations and hands-on learning experiences. We supplement academic journey with a diverse range of extracurricular activities and student-run clubs, providing the perfect platform to express and enhance non-academic skills. We just don't teach; we nurture future leaders through a combination of academics, personal growth opportunities and diverse learning environment, fostering critical thinking, leadership skills, and social responsibility.



State-of-the-Art Infrastructure

BITS Pilani Dubai Campus boasts cutting-edge facilities, including 30+ high-tech labs, world-class library, smart classrooms, incubation center, student housing, sports facilities and 24/7 Creative Lab.



Industry Internship

The Practice School program from BITS Pilani, Dubai Campus offers a 7.5-month industry internship with hands-on experience within the 4 years duration of the programme. Collaborating with over 300 companies, it provides ample internship opportunities and sets the foundation for a successful future.



Placement Assistance

BITS Pilani Dubai Campus is a top pick for MNCs and local conglomerates looking for talent. Our campus placements maximize job prospects by connecting you with top firms and offering endless career opportunities.



Accomplished Alumni Network

Proud of its successful alumni, BITS Pilani Dubai Campus fosters engagement between alumni, students, and the institution. Alumni, including scientists, entrepreneurs, and leaders, inspire students to excel.



**STRONG
ACADEMIC
EXCELLENCE
& GLOBAL
REPUTATION**

**RATED
5 STAR**
BY KNOWLEDGE &
HUMAN DEVELOPMENT
AUTHORITY (KHDA) IN
PARTNERSHIP WITH QS

**RANKED
GLOBALLY AMONG
TOP 300**
BY QS GRADUATE
EMPLOYABILITY
RANKINGS

**UPTO
30 WEEKS**
INDUSTRY INTERNSHIP
WITHIN THE PROGRAM
DURATION AT OVER 300
CORPORATES

**ARABIAN
BEST OF BEST
AWARD**

**RANKED
171**
BY QS ASIA UNIVERSITY
RANKINGS-2025

**MORE THAN
6000 ALUMNI**
IN LEADING POSITIONS
IN GLOBALLY REPUTED
CORPORATES

**NEARLY
AED 9.3 MILLION**
SCHOLARSHIPS
AWARDED EVERY YEAR

**50+
START-UPS**
FACILITATED IN LAST 5
YEARS ENCOURAGING
INNOVATION &
ENTREPRENEURSHIP

**UAE'S
BEST ENGINEERING
UNIVERSITY
AWARD**
BY GBM, UK

PROGRAMMES OFFERED

FIRST DEGREE PROGRAMMES



B.E. Architectural & Urban Engineering



B.E. Biotechnology



B.E. Biotechnology with specialization in Applied Molecular Biology



B.E. Chemical Engineering



B.E. Chemical with specialization in Energy, Environment & Sustainability



B.E. Civil Engineering



B.E. Computer Science



B.E. Electrical & Electronics Engineering



B.E. Electronics & Communication Engineering



B.E. Electronics & Computer Engineering



B.E. Mathematics & Computing



B.E. Mechanical Engineering



B.E. Mechanical with specialization in Aerospace



B.E. Robotics & Industrial Automation

MINOR PROGRAMMES:

- ✓ Entrepreneurship
- ✓ Data Science
- ✓ Aeronautics
- ✓ Finance

- ✓ Robotics and Automation
- ✓ Computing and Intelligence
- ✓ Materials Science and Engineering
- ✓ Philosophy, Economics and Politics

EDUCATIONAL PROCESS

FIRST YEAR	Foundation Courses	
SECOND YEAR	Discipline Core Courses, Humanities Electives	
SUMMER BREAK	Practice School (PS) - 1 (2 Months)	
THIRD YEAR	Discipline Core Courses, Discipline Electives Open & Humanities Electives	
FOURTH YEAR	Discipline Electives & Open Electives	PS II (5.5) Months
		Thesis
	PS II (5.5) Months	Discipline Electives & Open Electives
	Thesis	

Note: In the fourth year students have option to opt for either PS II or Thesis in any one of the semesters.

1. GENERAL INSTITUTIONAL REQUIREMENT COURSES

- General Biology, Biology Laboratory, General Chemistry, Chemistry Laboratory, Mechanics, Oscillations and Waves, and Physics Laboratory under Science Foundation.
- Mathematics I,II,III and Probability & Statistics under Mathematics Foundation.
- Electrical Sciences and Thermodynamics under Engineering Foundation.
- Computer Programming, Workshop Practice, Engineering Graphics, & Technical Report Writing under Technical Arts.
- Principles of Economics, Environmental Science, Principles of Management under General Awareness / Professional courses.
- Courses from Languages and Literature, History and Philosophy, Political and Social Sciences, Fine Arts and Professional Arts under Humanities

2. STRUCTURE & REQUIREMENT OF THE FIRST DEGREE PROGRAMMES

Category	Number of units required	Number of courses required
(I) General Institutional Requirement		
Humanities Electives	8	3
Science Foundation	12	6
Mathematics Foundation	12	4
Engineering Foundation	6	2
Technical Arts	10	4
General Awareness / Professional Courses	3 to 6	1 to 3
Sub-Total	51 to 54	20 to 22
(II) Discipline Requirement		
Core	33 to 48	10 to 16
Elective	12 to 27	4 to 9
Sub-Total	57 to 60	15 to 20
(III) Open Electives	15 to 27	5 to 9
Coursework Sub-Total	129 (min)	41(min)
(IV) PS-I and II or Thesis	25 or 9 to 16	2 or 1
Total	144 (min)	42 (min)

BACHELOR OF ENGINEERING in ARCHITECTURAL & URBAN ENGINEERING



Blending aesthetics with functionality, where innovation meets urban evolution

The program B.E. Architectural & Urban Engineering is a unique interdisciplinary program rooted in Architecture as the fundamental core. The program includes futuristic elements of four critical themes in the infrastructure Infrastructure, Computation & Digital Design, Sustainability & Environment, and Project Management & Finance. A graduate of this program will have fundamental knowledge in both architecture and urban engineering, gaining a significant edge.

Highlights of the program:

- State-of-the-art curriculum formulated after close consultation with top industry experts from prominent Architecture & Engineering firms.
- Curriculum is benchmarked with world-renowned universities.
- An industry rating of over 8.5/10 attests to the relevance of the curriculum to meet global needs.
- Exciting industry-led architectural projects during the program in both architecture and engineering firms.

Higher Studies: Students may pursue higher studies in architecture, urban engineering and multiple related areas

CAREER PATHWAYS

Job Roles

- Architectural Designer
- BIM (Building Information Modelling) Specialist
- Building Design/ Structural Engineer
- HVAC Engineer
- Lighting & Acoustic Designer
- Sustainability Specialist
- Building Systems Engineer
- Façade Engineer
- Urban Planning

Job Opportunities In

- Architecture Firms
- Engineering Consultancy
- Real Estate
- Building Design Firms
- Contracting & Project Management

Software Tools:

Bentley STAAD.Pro Connect | ArcGIS - GIS and Mapping softwares by Esri | PLAXIS 2D - Bentley Systems | PTV VISSIM - Traffic Simulation Software | AutoCAD - Autodesk | Abaqus FEA - Simulia | MATLAB - MathWorks | SketchUp Studio

B.E. ARCHITECTURAL & URBAN ENGINEERING

Semester-wise pattern*

First Semester

I YEAR

- Biology Laboratory
- General Biology
- Chemistry Laboratory
- General Chemistry
- Mathematics
- Physics Laboratory
- Mechanics, Oscillations and Waves
- Engineering Graphics

Second Semester

- Mathematics II
- Workshop Practice
- Computer Programming
- Electrical Sciences
- Technical Report Writing
- Probability and Statistics
- Thermodynamics

II YEAR

- Mathematics III
- Humanities Electives
- Basic Design for Visualization
- Civil Engineering Materials
- Structural Mechanics
- Fluid Mechanics and Applications
- Principles of Economics or Principles of Management

- Humanities Electives
- Architectural Design Studio I
- Building Construction & Technology
- Construction Economics
- Environmental studies

Summer Term: Practice School I

III YEAR

- Open Electives/Humanities Electives
- Architectural Design Studio II
- Geotechnical Design
- Design of Reinforced Concrete structures
- Highway Planning, Analysis and Design
- Discipline Electives

- Open Electives/Humanities Electives
- Urban Planning and Sustainable Communities
- Building Acoustics and Lighting Design
- Design of steel structures
- Directed Research in Architecture - I
- Discipline Electives

IV YEAR

- Open Electives
- Directed Research in Architecture - II

- Practice School-II / Thesis or Thesis and Electives

* This is an operative pattern for the students as approved by the Senate appointed committee, subject to change if the situation warrants

- **Discipline Core Courses - 48 Units (14 Courses)**
- **Discipline Electives - 12 Units (4 Courses)**

- **Open Electives -15 Units (5 Courses)**
- **Humanities Electives - 8 Units (3 Courses)**

Discipline Elective Courses

- Urban Hydrology
- Building Services
- Engineering Hydrology
- Landscape Architecture
- Construction Management
- Heating and Cooling of Buildings
- Airport, Railways and Waterways
- Water & Waste Water Treatment
- Financing Infrastructure Projects
- Introduction to Bridge Engineering
- Environmental Impact Assessment

- Building Information Modeling (BIM)
- Remote Sensing and Image Processing
- Renewable Energy Systems in Buildings
- Green Building and Energy Conservation
- Machine Learning in Design Optimization
- Computer Applications in Civil Engineering
- Introduction to Environmental Engineering
- Earthquake Resistant Design and Construction
- Principles of Geographical Information Systems
- Applications of Artificial Intelligence in Civil Engineering
- Urban Mass Transit Planning, Operations and Management

BACHELOR OF ENGINEERING in BIOTECHNOLOGY



BITS Pilani, Dubai Campus is the only University offering Engineering degree in Biotechnology in Dubai!

Biotechnology offers endless possibilities for those looking to leave a permanent mark in this world. From improving human health to preserving the environment, this rapidly growing field provides opportunities to work on society's most pressing challenges. Our Biotechnology program is designed to equip students with the skills and knowledge needed to succeed in this exciting niche field. Our program focuses on hands-on training and practical experience, preparing students for careers in the applied microbiology, human disease biology, environmental biotechnology, nanotechnology, metabolomics, computational biology, pharmaceutical and agricultural industries.

With our state-of-the-art labs and knowledgeable faculty, students have the resources they need to thrive. Our partnerships with biotechnology companies and research organizations offer opportunities for students to participate in cutting-edge research. The demand for biotechnology in the Middle East is driving the growth of our department, which provides world-class facilities, hands-on training, and connections to R&D projects through university partnerships. With established MOUs with organizations like the International Center for Biosaline Agriculture (ICBA), Human Biosciences, USA, and RAK Medical and Health Sciences University (RAKMHSU), our students are well-positioned for success in the industry. Enter the world of Biotechnology and begin to shape your future today.

CAREER PATHWAYS

Job Roles

- Application Scientist
- Clinical Laboratory Technician
- Quality Control Scientist
- Process Development Scientist
- Biotechnologist
- Virologist
- Forensics
- Genetic Engineer
- Research Scientist
- Food Safety Specialist
- Immunologist

Companies Hiring

- Pfizer
- Pepsico
- Al Rawabi
- Dabur International
- Ceres Nanoscience
- Cooper Gneomics
- Merck
- Medcare hospital
- Himalaya Herbals
- EUROFINS
- 10X GENOMICS

Higher Studies: Many students have joined reputed universities for their higher studies in Forensics, Bio-Medical Engineering, Genetic Counselling, Immunology, Biotechnology, Biomedical, Bio-Pharmaceutical, Bio Science etc. at Johns Hopkins, Harvard, MIT, University of Pennsylvania, Uppsala University, Umea University, TU Dresden, LMU Munich, Trinity College Dublin, McMaster University, Leiden University, Wageningen University, Bonn University, NUS, UCSD

B.E. BIOTECHNOLOGY

Semester-wise pattern*

First Semester

I YEAR

- Mathematics I
- Physics Laboratory
- Biology Laboratory
- General Biology
- Chemistry Laboratory
- General Chemistry
- Engineering Graphics
- Mechanics, Oscillations and Waves

Second Semester

- Mathematics II
- Electrical Sciences
- Probability and Statistics
- Technical Report Writing
- Workshop Practice
- Thermodynamics
- Computer Programming

II YEAR

- Mathematics III
- Biological Chemistry
- Microbiology
- Biophysics
- Cell Biology
- Environmental Studies
- Humanities Electives

- Principles of Economics or Principles of Management
- Humanities Electives
- Genetic Engineering Techniques
- Genetics
- Introduction to Environmental Biotechnology
- Instrumental Methods of Analysis

Summer Term: Practice School I

III YEAR

- Open / Humanities Electives
- Recombinant DNA Technology
- Industrial Microbiology & Bioprocess Engineering
- Discipline Electives

- Open Humanities Electives
- Immunology
- Downstream Processing
- Experiments in Biotechnology
- Discipline Electives

IV YEAR

- Open Electives
- Discipline Electives

- Practice School-II / Thesis or Thesis and Electives

* This is an operative pattern for the students as approved by the Senate appointed committee, subject to change if the situation warrants

▪ **Discipline Core Courses - 48 Units (14 Courses)**

▪ **Discipline Electives - 12 Units (4 Courses)**

▪ **Open Electives -15 Units (5 Courses)**

▪ **Humanities Electives - 8 Units (3 Courses)**

Discipline Elective Courses

- Genomics
- Proteomics
- Design Project
- Special Project
- Laboratory Project
- Immunotechnology
- Nano Biotechnology
- Food Biotechnology

- Biomolecular Modeling
- Bioethics and Biosafety
- Drug design and Delivery
- Molecular Biology of the Cell
- Introduction to Bioinformatics
- Cell and Tissue Culture Technology
- Introduction to Plant Biotechnology

Software Tools:

VMD | Chimera | Amber | Gaussian | Avogadro | xmGrace | Pymol | MetScape | R | GEPIA |
AutoDock tools | Discovery Studio | Schrodinger

BACHELOR OF ENGINEERING in BIOTECHNOLOGY with specialization in APPLIED MOLECULAR BIOLOGY

"Shape the Future with Molecular Biology: Innovate, Discover, Excel!"

"The demand for experts in applied molecular biology is rapidly growing across industries such as cell biology, biophysics, cancer research, genomics, proteomics, immunology, virology, agriculture, and computational biology. These fields rely on skilled professionals to drive innovation and address global challenges. The Bachelor of Engineering in Biotechnology with specialization in Applied Molecular Biology is designed to provide students with in-depth knowledge and practical skills in molecular biology and biotechnology. The program prepares graduates to excel in the job market while inspiring them to pursue cutting-edge research and innovative solutions. Students gain expertise in areas such as proteomics, genomics, bioinformatics, pharmaceutical biotechnology, plant biotechnology, and immunotechnology. These courses focus on topics like protein function, genetic analysis, drug development, crop improvement, and immune system mechanisms. With a strong emphasis on laboratory-based training and problem-solving, the program equips graduates with technical expertise and interdisciplinary knowledge. Aligned with international standards, it prepares students for careers in healthcare, agriculture, pharmaceuticals, bioinformatics, research, and academia on a global scale. This program offers a pathway for aspiring professionals to transform the world through advanced science and technology."

Higher Studies: Numerous Opportunities for Masters and PhD in this field in leading universities such as Johns Hopkins, Harvard, MIT, University of Pennsylvania, Uppsala University, Umea University, TU Dresden, LMU Munich, Trinity College Dublin, McMaster University, Leiden University, Wageningen University, Bonn University, NUS, UCSD

CAREER PATHWAYS

Job Roles

- Application Scientist
- Molecular Biologist
- Biotechnologist
- Virologist
- Immunologist
- Food Safety Specialist
- Clinical Laboratory Specialist
- Quality Control Scientist
- Forensic Scientist
- Genetic Engineer
- Process Development Scientist
- Research & Development Scientist

Job Opportunities In

- Government Agencies
- Bio Pharma Companies
- Bio Tech Companies
- Genetic Engineering Companies
- Research Labs

B.E. BIOTECHNOLOGY with specialization in APPLIED MOLECULAR BIOLOGY

Semester-wise pattern*

First Semester

I YEAR

- Biology Laboratory
- General Biology
- Chemistry Laboratory
- General Chemistry
- Mathematics I
- Engineering Graphics
- Computer Programming

Second Semester

- Mathematics II
- Workshop Practice
- Electrical Sciences
- Technical Report Writing
- Probability and Statistics
- Thermodynamics
- Physics Laboratory
- Mechanics, Oscillations and Waves

II YEAR

- Mathematics III
- Open/Humanities Electives
- Biological Chemistry
- Microbiology
- Biophysics
- Cell Biology
- Environmental Studies

- Principles of Economics Or Principles of Management
- Open/Humanities Electives
- Genetic Engineering Techniques
- Genetics
- Introduction to Environmental Biotechnology
- Instrumental Methods of Analysis

Summer Term: Practice School I

III YEAR

- Open/Humanities Electives
- Recombinant DNA Technology
- Industrial Microbiology & Bioprocess Engineering
- Discipline Electives

- Open/Humanities Electives
- Immunology
- Experiments in Biotechnology
- Downstream Processing
- Discipline Electives

IV YEAR

- Open Electives
- Discipline Electives

- Practice School-II / Thesis or Thesis and Electives

* This is an operative pattern for the students as approved by the Senate appointed committee, subject to change if the situation warrants

- **Discipline Core -43 Units (13 Courses)**
- **Discipline Electives-15 Units (5 Courses)**

- **Open Electives-15 Units (5 Courses)**
- **Humanities Electives-8 Units (3 Courses)**

Discipline Elective Courses

- Genomics
- Proteomics
- Immunotechnology
- Introduction to Bioinformatics
- Molecular Biology of the Cell #
- Applied Molecular Biology Project #
- Introduction to Plant Biotechnology
- Introduction to Pharmaceutical Biotechnology

Note: “#” Compulsory discipline elective courses out of the discipline electives requirement.

Software Tools:

VMD | Chimera | Amber | Pymol | MetScape | R | GEPIA | AutoDock tools | Discovery Studio | Schrodinger

BACHELOR OF ENGINEERING in CHEMICAL ENGINEERING



The Department of Chemical Engineering at BITS Pilani, Dubai Campus is one of the premier chemical engineering departments in the gulf region. The department's goal is to produce students who will become leaders in their areas.

Chemical Engineering is undoubtedly one of the most versatile engineering disciplines. Through a judicious mix of mandatory & elective courses, the students at Dubai campus gain expertise in various areas of Chemical Engineering such as petroleum and petrochemicals, renewable energy, environmental engineering, biochemical engineering, nanoscience & technology, paper, cement, ceramics & glass, polymers & plastics, food processing and products, paints and dyes, textiles and synthetic fibers, etc. Also, students are enabled to enter interdisciplinary areas like Atomic and Molecular Simulation, Surface Science, Corrosion Engineering, Combustion Engineering and Polymer Technology.

Highlights of B.E. Chemical Engineering Programme:

- Courses are designed to encompass both the industrial and computational aspects of Chemical Engineering.
- Engaging classroom sessions include STEM activities and utilize interactive panels.
- Opportunities to get involved in departments, lab projects or design projects.
- Off-Campus thesis options in the final year in any University under the supervision of faculties from both the campuses.

Higher Studies: Several graduates have pursued higher studies in Chemical Engineering, Process Engineering, Petroleum Engineering, Management, Environment Engineering, Material Engineering, Food Processing, Biomedical Engineering, Renewable energy from universities like Imperial College of London, University of Toronto, University of Waterloo, University of Melbourne and many more to further specialize.

CAREER PATHWAYS

Job Roles

- Product Engineer
- Process Engineer
- Plant Engineer
- Chemical Engineer
- Project Heads
- Quality control Engineer
- Plant Manager
- Product Sales

Companies Hiring

- Reckitt Benckiser
- Monaco Engineering Solutions
- Petrofac
- Kingspan
- DNV-GL
- Clear Water Solutions, Al Shirawi

B.E. CHEMICAL ENGINEERING

Semester-wise pattern*

First Semester

I YEAR

- Biology Laboratory
- General Biology
- Chemistry Laboratory
- General Chemistry
- Mathematics I
- Physics Laboratory
- Mechanics, Oscillations and Waves
- Engineering Graphics

Second Semester

- Mathematics II
- Workshop Practice
- Computer Programming
- Electrical Sciences
- Technical Report Writing
- Probability and Statistics
- Thermodynamics

II YEAR

- Mathematics III
- Humanities Electives
- Fluid Mechanics
- Chemical Process Calculations
- Engineering Chemistry
- Chemical Engineering Thermodynamics
- Environmental Studies

- Principles of Economics or Principles of Management
- Humanities Electives
- Heat Transfer
- Numerical Methods for Chemical Engineers
- Material Science & Engineering
- Separation Processes I

Summer Term: Practice School I

III YEAR

- Open / Humanities Electives
- Chemical Engineering Laboratory I
- Separation Processes II
- Kinetics & Reactor Design
- Process Design Principles I
- Discipline Electives

- Open / Humanities Electives
- Chemical Engineering Laboratory II
- Process Dynamics & Control
- Process Design Principles II
- Discipline Electives

IV YEAR

- Open Electives
- Discipline Electives

- Practice School-II / Thesis or Thesis and Electives

* This is an operative pattern for the students as approved by the Senate appointed committee, subject to change if the situation warrants

▪ **Discipline Core Courses - 48 Units (14 Courses)**

▪ **Discipline Electives - 12 Units (4 Courses)**

▪ **Open Electives -15 Units (5 Courses)**

▪ **Humanities Electives - 8 Units (3 Courses)**

Discipline Elective Courses

- Polymer Technology
- Process Plant Safety
- Corrosion Engineering
- Fluidization Engineering
- Transport Phenomena
- Biochemical Engineering
- Advanced Process Control
- Alternate Energy Resources
- Paper and Pulp Technology
- Sustainable Energy Systems
- Energy Systems Engineering
- Chemical Process Technology
- Environmental Pollution Control

- Petroleum Refinery Engineering
- Petroleum Reservoir Engineering
- Atomic and Molecules Simulations
- Colloids and Interface Engineering
- Petroleum Downstream Processing
- Environmental Management Systems
- Energy Conservation and Management
- Petroleum Refining and Petrochemicals
- Machine learning in Chemical Engineering
- Molecular and Statistical Thermodynamics
- Introduction to Nanoscience and Technology
- Modeling and Simulation in Chemical Engineering

Software Tools:

PYTHON | MATLAB | MINITAB | ASPEN HYSYS | MATH TYPE

BACHELOR OF ENGINEERING in CHEMICAL with specialization in ENERGY, ENVIRONMENT AND SUSTAINABILITY



Empowering the Future with Cutting-Edge Solutions for Energy, Environment, and Sustainability

Current market trends globally and in the UAE region emphasize the relevance of energy, environment and sustainability. To keep in line with the Sustainable Development Goals (SDGs) set by the United Nations and the target of “UAE Net Zero” by 2050, the Department of Chemical Engineering, BITS Pilani Dubai offers the program of B.E. Chemical with Specialization in Energy, Environment, and Sustainability. This program in Energy, Environment and Sustainability connects Chemical Engineering concepts with all-inclusive challenges with the focus on environmental friendly practices, sustainability and generation of clean and affordable energy. To solve the problems inherently associated with energy, environment and sustainability there is an utmost importance to combine the understandings of molecular, chemical, physical, mathematical sciences with a strong foundation in Chemical Engineering principles. This program focuses on developing problem solving skills and scientific knowledge in the fields of energy, environment and sustainability to allow graduates to contribute in their local and global communities through work in a wide range of fields.

Higher Studies: Students may pursue higher studies in Chemical Engineering, Sustainability, Enterprise and the Environment, Energy, Society and Sustainability, Business, Energy, Environment and Sustainability, Environmental Policy and Planning, Sustainable Systems, Process Engineering, Environment Engineering, Material Engineering, Renewable energy from universities around the world.

CAREER PATHWAYS

Job Roles

- Sustainability Consultant
- Sustainability & Energy Engineer
- Environmental Consultant
- Energy Engineer
- Process Engineer
- Quality Engineer
- Waste Management Officer
- Carbon Market Analyst
- Decarbonization and Sustainability Consultant
- Life Cycle Assessment Engineer

Job Opportunities In

- Private and Public Organizations
- Construction Service Providers
- Engineering Consultancies
- Quality Assurance Companies
- Regulatory Boards
- Government Agencies
- Energy Companies

B.E. CHEMICAL with specialization in ENERGY, ENVIRONMENT AND SUSTAINABILITY

Semester-wise pattern*

First Semester

I YEAR

- Biology Laboratory
- General Biology
- Chemistry Laboratory
- General Chemistry
- Mathematics I
- Physics Laboratory
- Mechanics, Oscillations and Waves
- Engineering Graphics

Second Semester

- Mathematics II
- Workshop Practice
- Computer Programming
- Electrical Sciences
- Technical Report Writing
- Probability and Statistics
- Thermodynamics

II YEAR

- Mathematics III
- Fluid Mechanics
- Chemical Process Calculations
- Engineering Chemistry
- Chemical Engineering Thermodynamics
- Humanities Electives

- Principles of Economics Or Principles of Management
- Heat Transfer
- Separation Processes I
- Humanities Electives
- Material Science & Engineering Numerical
- Methods for Chemical Engineers

Summer Term: Practice School I

III YEAR

- Chemical Engineering Laboratory I
- Separation Processes II
- Process Design Principles I
- Kinetics & Reactor Design
- Discipline Electives
- Open/Humanities Electives

- Open/Humanities Electives
- Chemical Engineering Laboratory II
- Process Dynamics & Control
- Process Design Principles II
- Discipline Electives

IV YEAR

- Open Electives
- Discipline Electives

- Practice School-II / Thesis or Thesis and Electives

* This is an operative pattern for the students as approved by the Senate appointed committee, subject to change if the situation warrants

▪ **Discipline Core Courses - 45 Units (15 Courses)**

▪ **Discipline Electives - 15 Units (5 Courses)**

▪ **Open Electives - 15 Units (5 Courses)**

▪ **Humanities Electives - 8 Units (3 Courses)**

Discipline Elective Courses

- Sustainable Energy Systems
- Energy Systems Engineering
- Energy Storage Technologies
- Energy Economics and Policy
- Environmental Management Systems
- Environmental Pollution Control
- Environmental Sustainability Ventures
- Environment, Development and Climate Change
- Laboratory Project or Design Project or Special Project

Software Tools:

PYTHON | MATLAB | MINITAB | ASPEN HYSYS | PROMAX

BACHELOR OF ENGINEERING in CIVIL ENGINEERING



*Civil Engineering: Designing & Building Infrastructures
that define Modern Society*

Civil Engineering, a discipline that blends creativity and practicality, stands as one of the oldest, most essential and ever-growing branches of engineering. The Bachelor of Engineering (B.E.) in Civil Engineering is not just an academic program; it's a journey towards becoming a crucial contributor to the development and sustainability of our built environment.

This program is designed to equip students with a robust foundation in engineering principles, coupled with specialized knowledge and skills in designing, constructing, and maintaining the infrastructure that is pivotal to modern society.

Highlights of B.E. Civil Engineering Program:

- State-of-the-art curriculum with modular approach taught by eminent faculty
- Frequent educational visits to UAE's major infrastructural projects for hands-on learning
- Guidance from industry through regular expert lectures
- Advanced electives on sustainability and artificial intelligence-based applications
- Opportunity to participate in live projects at leading companies through our Practice School program

Higher Studies: Several Graduates have opted for higher studies after completion of Civil Engineering from universities like TU Delft, University of Bath, HEC Paris, HTW Dresden, Heriot-Watt University and University of Melbourne etc.

CAREER PATHWAYS

Job Roles

- Project Engineers / Managers
- Structural Design Engineers
- Geotechnical Specialist
- Sustainability Consultant
- Environmental Engineer
- Transportation and Urban Planners
- Construction Engineers

Companies Hiring

- Sobha Constructions LLC
- Sobha Realty
- AESG Dubai
- EIC Global
- Asteco Property Management
- ESRI

B.E.CIVIL ENGINEERING

Semester-wise pattern*

First Semester

I YEAR

- Biology Laboratory
- General Biology
- Chemistry Laboratory
- General Chemistry
- Mathematics I
- Physics Laboratory
- Mechanics, Oscillations and Waves
- Engineering Graphics

Second Semester

- Mathematics II
- Workshop Practice
- Computer Programming
- Electrical Sciences
- Technical Report Writing
- Probability and Statistics
- Thermodynamics

II YEAR

- Mathematics III
- Humanities Electives
- Fluid Mechanics
- Mechanics of Solids
- Surveying
- Civil Engineering Materials

- Humanities Electives
- Analysis of Structures
- Construction Planning & Technology
- Soil Mechanics
- Highway Engineering
- Environmental Studies
- Principles of Economics or Principles of Management

Summer Term: Practice School I

III YEAR

- Open / Humanities Electives
- Design of Reinforced Concrete Structures
- Hydraulic Engineering
- Foundation Engineering
- Discipline Electives

- Open / Humanities Electives
- Water & Waste Water Treatment
- Design of Steel Structures
- Engineering Hydrology
- Discipline Electives

IV YEAR

- Open Electives

- Practice School-II / Thesis or Thesis and Electives

* This is an operative pattern for the students as approved by the Senate appointed committee, subject to change if the situation warrants

▪ **Discipline Core Courses - 48 Units (14 Courses)**

▪ **Discipline Electives - 12 Units (4 Courses)**

▪ **Open Electives -15 Units (5 Courses)**

▪ **Humanities Electives - 8 Units (3 Courses)**

Discipline Elective Courses

- Advanced Foundation Systems
- Airport, Railways and Waterways
- Environmental Impact Assessment
- Introduction to Finite Element Methods
- Remote Sensing and Image Processing
- Green Buildings and Energy Conservation
- Computer Applications in Civil Engineering
- Principles of Geographical Information System (GIS)
- Applications of Artificial Intelligence in Civil Engineering
- Structural Dynamics
- Disaster Management
- Geotechnical Earthquake
- Design of Foundation Systems
- Operation Research for Engineers
- Engineering & Machine Foundation
- Introduction to Bridge Engineering
- Introduction to Environmental Engineering
- Geosynthetics and Reinforced Soil Structure

Software Tools:

Bentley STAAD.Pro Connect | ArcGIS - GIS and Mapping softwares by Esri | PLAXIS 2D - Bentley Systems | PTV VISSIM - Traffic Simulation Software | AutoCAD - Autodesk | Abaqus FEA - Simulia | MATLAB - MathWorks

BACHELOR OF ENGINEERING in COMPUTER SCIENCE



The engineering degree in Computer Science at BITS Pilani Dubai Campus is designed to produce worldclass computer engineers with the ability to design and develop computer systems and applications.

The Computer Science curriculum prepares our students with knowledge and skills in computer science and engineering to solve real-world problems. It enables our students to have proficiency in modern hardware devices and software tools to meet the industry requirements.

The courses are designed to provide a comprehensive understanding of computing intricacies, with a focus on hardware, software, and networking. Most courses include both theoretical and practical sessions to improve understanding. The department has a vibrant student body, highly qualified faculty members, and is committed to achieving high standards of excellence in academic and research activities in the coming years.

The students will have opportunities to enhance their skills through professional organizations like ACM, ACM-W, Linux User Group, Google Developer Students Club (GDSC), and Microsoft Tech. Club. Our students have also won prestigious prizes and cash awards in several programming competitions and hackathons in the Middle East. Our graduates are equipped to succeed in the competitive world of computer science, with expertise in computer hardware design, software development, programming, and computing theory.

At BPDC, we believe that computing offers unlimited opportunities for true creativity and innovation. Join us and unleash your potential with a dynamic and exciting program that will help you achieve your goals.

Higher Studies: Several graduates have pursued their masters programs in Computer Science, AI & ML, Software Engineering, Software Systems, Information Security, Multimedia & Animation, Gaming, Cyber Security, AI & Data Science, at well-known institutions such as Carnegie Mellon University, University of Southern California, Pennsylvania State University, Trinity College -Dublin, University of California-Los Angeles, University of Leeds, Virginia Tech, University of Edinburgh, Technical University of Munich, University of Toronto, Northeastern University, Purdue University and many more.

Software Tools:

Arduino IDE | BlueJ | NetBeans | Java SE | MySQL Server | MySQL Workbench | Wireshark | Android Studio | QtSpim | Anaconda | Network Simulator 2 (NS2) | NetSim | Adobe Creative Cloud

CAREER PATHWAYS

Job Roles

- Computer Engineer
- Development Engineer
- Big Data Engineer
- Blockchain Developer
- Computer Network Architect
- Cyber Security Specialist
- Data Scientist
- Game Developer
- IoT Development Engineer
- Machine Learning Engineer
- Software Engineer
- System & Network Administrator
- System Analyst
- Web and Mobile App Engineer

Companies

- Microsoft
- Google
- Astrazeneca
- Schneider Electric
- dubizzle
- Noon
- Wipro
- Deloitte
- Reckitt
- Sharaf DG
- Amazon
- Emerson
- Emirates
- ESRI
- Landmark Group
- PWC
- Oracle
- Standard Chartered Bank

B.E. COMPUTER SCIENCE

Semester-wise pattern*

First Semester

I YEAR

- Biology Laboratory
- General Biology
- Chemistry Laboratory
- General Chemistry I
- Mathematics I
- Physics Laboratory
- Mechanics, Oscillations and Waves
- Engineering Graphics

Second Semester

- Mathematics II
- Workshop Practice
- Computer Programming
- Electrical Sciences
- Technical Report Writing
- Probability and Statistics
- Thermodynamics

II YEAR

- Mathematics III
- Humanities Electives
- Logic in Computer Science
- Discrete Structures for Computer Science
- Object Oriented Programming
- Digital Design

- Principles of Economics or Principles of Management
- Humanities Electives
- Data Structures & Algorithms
- Microprocessors & Interfacing
- Database Systems
- Environmental Studies

Summer Term: Practice School I

III YEAR

- Open / Humanities Electives
- Operating Systems
- Principles of Programming Languages
- Computer Architecture
- Theory of Computation
- Discipline Electives

- Open / Humanities Electives
- Compiler Construction
- Design & Analysis of Algorithms
- Computer Networks
- Discipline Electives

IV YEAR

- Open Electives
- Discipline Electives

- Practice School-II / Thesis or Thesis and Electives

* This is an operative pattern for the students as approved by the Senate appointed committee, subject to change if the situation warrants

- **Discipline Core Courses - 48 Units (14 Courses)**
- **Discipline Electives - 12 Units (4 Courses)**

- **Open Electives - 15 Units (5 Courses)**
- **Humanities Electives - 8 Units (3 Courses)**

Discipline Elective Courses

- Software Engineering
- Data Science for Healthcare
- Foundations of Data Science
- Service Oriented Computing
- Natural Language Processing
- Internetworking Technologies
- Human – Computer Interaction
- Generative Artificial Intelligence
- Software for Embedded Systems
- Neural Networks and Fuzzy Logic
- Object Oriented Analysis and Design
- Cyber Physical Systems and Security
- Cybersecurity Analytics and Forensics
- Quantum Architecture and Programming
- Quantum Information and Computation

- Data Mining
- Cryptography
- Deep Learning
- System Security
- Number Theory
- Network Security
- Image Processing
- Cloud Computing
- Machine Learning
- Real Time Systems
- Parallel Computing
- Computer Graphics
- Artificial Intelligence
- Information Retrieval
- Blockchain Technology

BACHELOR OF ENGINEERING in ELECTRICAL & ELECTRONICS ENGINEERING



Let's shape the future of technology!

Our cutting-edge curriculum blends the principles of electrical and electronics engineering to give you the skills you need to design and develop the systems that power our world. With specializations in emerging engineering sectors, our undergraduate degree program provides a comprehensive education in the core domains of Electrical and Electronics Engineering.

In Electrical and Electronics Engineering, students learn about different fundamental principles of electricity, circuit design, machines, and electronic components, in addition to the generation, transmission, distribution, and protection of power systems. They will delve into areas such as communications systems, electromagnetism, signals and image processing, microelectronics, control systems, and renewable energy technologies to understand how to design, analyse, and optimize electrical and electronic systems and devices.

Whether you are interested in protecting power system components against faults or abnormalities, exploring solid-state electronics, or making a difference in the field of renewable energy systems and solid-state drives, our program has everything you need to succeed.

Through capstone projects, thesis, and practice school programme, you will be able to make a difference that has an impact on the community and the lives of individuals. Apart from academics, students will have the opportunity to be part of international professional organizations such as the Institute of Electrical and Electronics Engineers (IEEE), Women in Engineering (WIE), and the Society of Women Engineers (SWE). Moreover, they can actively participate in institutional clubs like IFOR (Intelligent Flying Object for Reconnaissance) and AOEE (Association of Electronic Engineers).

Higher Studies: Several graduates have opted for Higher Education in Electrical Engineering, Computer Control and Automation, Industrial and Systems, Aeronautics, Communications, Digital Signal Processing, Wireless Communications, Biomedical Engineering, Engineering, Business Management etc. with globally reputed universities, such as ETH Zurich, University of Pennsylvania, Carnegie Mellon, University of California, Los Angeles, Columbia University, University of Toronto, Virginia Tech, Harvard Business School, Stanford University and many more.

CAREER PATHWAYS

Job Roles

- Electrical Engineer
- Project Engineer
- Design Engineer
- Sales and Service Engineer
- Automation & Control Engineer
- Engineering Consultant
- Energy and EV Engineer
- Technical Support Engineer
- Application Engineer
- Power System Engineer

Companies Hiring

- Emerson
- Schneider Electric
- L&T
- Du Telecom
- Honeywell
- Weidmuller
- OTIS Elevators
- Schindler
- EATON
- TUV Middle East

B.E. ELECTRICAL & ELECTRONICS ENGINEERING

Semester-wise pattern*

First Semester

I YEAR

- Biology Laboratory
- General Biology
- Chemistry Laboratory
- General Chemistry
- Mathematics I
- Physics Laboratory
- Mechanics, Oscillations and Waves
- Engineering Graphics

Second Semester

- Mathematics II
- Workshop Practice
- Computer Programming
- Electrical Sciences
- Technical Report Writing
- Probability and Statistics
- Thermodynamics

II YEAR

- Mathematics II
- Humanities Electives
- Electrical Mechanics
- Electromagnetic Theory
- Digital Design
- Electronics Devices

- Principles of Economics or Principles of Management
- Humanities Electives
- Microprocessors & Interfacing
- Control Systems
- Signals & Systems
- Microelectronic Circuits
- Environmental Studies

Summer Term: Practice School I

III YEAR

- Open / Humanities Electives
- Communication Systems
- Optimization or
- Engineering Optimization
- Analog & Digital VLSI Design
- Discipline Electives

- Open/Humanities Electives
- Analog Electronics
- Power Electronics
- Power Systems
- Discipline Electives

IV YEAR

- Open Electives
- Discipline Electives

- Practice School-II / Thesis or Thesis and Electives

* This is an operative pattern for the students as approved by the Senate appointed committee, subject to change if the situation warrants

- **Discipline Core Courses - 48 Units (14 Courses)**
- **Discipline Electives - 12 Units (4 Courses)**

- **Humanities Electives - 8 Units (3 Courses)**
- **Open Electives - 15 Units (5 Courses)**

Discipline Elective Courses

- Internet of Things
- Operating Systems
- Introduction to MEMS
- Computer Architecture
- Energy Storage Systems
- Modern Control Systems
- Digital Image Processing
- Medical Instrumentation
- Fiber Optics & Optoelectronics
- Data Communication Networks
- Computer based Control Systems

- Satellite Communication
- Wind Electrical Systems
- Advanced Power System
- Power Systems Laboratory
- Power Apparatus & Networks
- Object Oriented Programming
- Neural Networks & Fuzzy Logic
- Smart Grid for Sustainable Energy
- Power System Analysis and Control
- Electric Power Utilization and Illumination
- Electrical and Electronic Circuits Laboratory

Software Tools:

Cadence | CST Microwave Studio | Mutisim | PROTEUS | MiPower | MATLAB | LabVIEW

BACHELOR OF ENGINEERING in ELECTRONICS & COMMUNICATION ENGINEERING



Empowering the future through innovative communication and seamless connectivity for a smarter world

Electronics and Communication Engineering is among the most vibrant fields of engineering in terms of pushing boundaries, discovering new scientific breakthroughs, creating innovative technologies, and making a real impact on the world.

Electronics and Communication Engineering focuses on understanding the operational concepts and crafting the structure of electronic components, circuits, and systems, encompassing a broad spectrum from mobile phones to wireless networks and satellite communication systems.

In Electronics and Communication Engineering, students acquire foundational knowledge and theories essential for their future professional roles, encompassing analysis, system implementation, operation, production, and maintenance within the engineering sector. Students are provided with opportunities to engage with cutting-edge equipment and software across various domains, including electronic circuits, digital electronics, digital signal processing, microcontrollers, digital communications, microwaves, control systems, optical communications, the Internet of Things, and VLSI design.

Project-based learning, thesis, and practice school program are further opportunities for students to work on real-time projects and obtain practical experience.

The program is particularly suitable for students interested in dynamic industries, including aerospace, automotive, consumer goods, defence, desalination, electronics, IC design, oil and gas, satellite communication stations, and telecommunication.

Apart from academics, students will have an opportunity to be part of international professional organizations such as the Institute of Electrical and Electronics Engineers (IEEE), Women in Engineering (WIE), and the Society of Women Engineers (SWE). Moreover, they can actively participate in institutional clubs like IFOR (Intelligent Flying Object for Reconnaissance) and AOEE (Association of Electronic Engineers).

Higher Studies: Several graduates have pursued Higher Education in Electronics and Communication Engineering specializing in the areas such as Aeronautics, Communications, Digital Signal Processing, Wireless Communications, Biomedical Engineering, Computer Control and Automation, Industrial and Systems Engineering, Business Management etc., with globally reputed Universities, such as California Institute of Technology, University of Pennsylvania, Columbia University, Carnegie Mellon University, Virginia Tech, University of California, Los Angeles, Stanford University, University of Toronto, Harvard Business School, and many more.

CAREER PATHWAYS

Job Roles

- Communication Engineer
- Network Administrator
- IC Design Engineer
- System Administrator
- Deployment & Science Engineer
- Security System Engineer
- Procurement Data Analyst
- Development Operations Engineer
- Data Engineer
- Embedded Systems Analyst
- IoT Engineer

Companies Hiring

- Intel
- NVIDIA
- Microsoft
- Micron
- Qualcomm
- Samsung
- IBM
- AMD
- ARM
- L&T
- Google
- SanDisk

B.E. ELECTRONICS & COMMUNICATION ENGINEERING

Semester-wise pattern*

First Semester

I YEAR

- Biology Laboratory
- General Biology
- Chemistry Laboratory
- General Chemistry I
- Mathematics I
- Physics Laboratory
- Mechanics, Oscillations and Waves
- Engineering Graphics

Second Semester

- Mathematics II
- Workshop Practice
- Computer Programming
- Electrical Sciences
- Technical Report Writing
- Probability and Statistics
- Thermodynamics

II YEAR

- Mathematics III
- Humanities Electives
- Electrical Machines
- Electromagnetic Theory
- Digital Design
- Electronic Devices

- Principles of Economics or Principles of Management
- Humanities Electives
- Microprocessors and Interfacing
- Control Systems
- Signals & Systems
- Microelectronic Circuits
- Environmental Studies

Summer Term: Practice School I

III YEAR

- Open / Humanities Electives
- Communication Systems
- Electromagnetic Fields & Microwave Engineering
- Digital Signal Processing
- Discipline Electives

- Open / Humanities Electives
- Analog Electronics
- Communication Networks
- Information Theory & Coding
- Discipline Electives

IV YEAR

- Open Electives
- Discipline Electives

- Practice School-II / Thesis or Thesis and Electives

* This is an operative pattern for the students as approved by the Senate appointed committee, subject to change if the situation warrants

- **Discipline Core Courses - 48 Units (14 Courses)**
- **Discipline Electives - 12 Units (4 Courses)**

- **Humanities Electives - 8 Units (3 Courses)**
- **Open Electives - 15 Units (5 Courses)**

Discipline Elective Courses

- Cryptography
- Internet of Things
- Operating Systems
- Computer Architecture
- Digital Image Processing
- Reconfigurable Computing
- Analog & Digital VLSI Design
- Antenna Theory and Design
- Object Oriented Programming
- Computer based Control Systems
- Machine Learning for Electronics Engineers

- Introduction to MEMS
- Digital Communication
- Satellite Communication
- Medical Instrumentation
- Data Communication Networks
- Mobile Telecommunication Networks
- Modern Communication Technologies
- FPGA Based System Design Laboratory
- Electronic Devices Simulation Laboratory
- EM Fields and Microwave Engineering Laboratory
- Telecommunication Switching Systems & Networks

Software Tools:

Cadence | CST Microwave Studio | Mutisim | PROTEUS | MiPower | MATLAB | LabVIEW

BACHELOR OF ENGINEERING in ELECTRONICS & COMPUTER ENGINEERING



Let's innovate future intelligence to drive tomorrow's technology.

There is a growing demand for the professionals in the field of IoT (Internet of Things), Industrial Internet of Things (IIoT), Embedded System Design, Artificial Intelligence and Machine learning-based Technologies, Robotics and Drone Technology, Computer Vision based Intelligent Systems, Design of Computer hardware and Integrated Circuits (ICs). This curriculum, which is jointly offered by the departments of Electrical and Electronics Engineering and Computer Science, is designed to meet industry requirements by providing students with knowledge and skills in both computer hardware and software applications.

The students will get hands on experience in the software and hardware tools like Amazon Web Services (AWS), Python programming tools, Raspbian OS, MATLAB, Intel FPGA Kits, Semiconductor IC Design using Cadence, Raspberry pi, NVIDIA GPU kits, Embedded Systems Development using PROTEUS, CST Studio, Cisco Packet Tracer, RTOS Simulator and LabVIEW. Along with this, students will be provided with high end computing systems for Artificial Intelligence and Machine Learning applications.

Apart from academics, students will get an opportunity to be a part International professional organizations such as Institute of Electrical and Electronics Engineers (IEEE), Women in Engineering (WIE), Society of Women Engineers (SWE), Association for Computing Machinery (ACM) and Institutions of Engineers India (IEI). Moreover, they can actively participate in institutional clubs like, IFOR (Intelligent Flying Object for Reconnaissance), AOEE, (Association of Electronic Engineers), Linux user group, Google Developer Students Club (GDSC) and Microsoft Tech Club.

CAREER PATHWAYS

Job Opportunities

- Computer Systems Engineer
- Software Engineer
- Program Analyst
- System Administrator
- Firmware Engineer
- IoT Engineer
- Network Engineer
- Processor Designer
- IC Design Engineer
- Embedded System Engineer
- Database Administrator

Higher Studies Opportunities in the field of:

- Artificial Intelligence
- Machine Learning
- Data Science
- Computer Vision
- IC Design
- Communication and Networking
- Cyber Security
- Robotics
- Embedded Systems
- Mechatronics

Software Tools:

Cadence | CST Microwave Studio | Mutisim | PROTEUS | MATLAB | LabVIEW | Amazon Web Services (AWS) | Cisco Packet Tracer | RTOS Simulator

B.E. ELECTRONICS & COMPUTER ENGINEERING

Semester-wise pattern*

First Semester

I YEAR

- Biology Laboratory
- General Biology
- Chemistry Laboratory
- General Chemistry
- Mathematics I
- Physics Laboratory
- Mechanics, Oscillations and Waves
- Engineering Graphics

Second Semester

- Mathematics II
- Workshop Practice
- Computer Programming
- Electrical Sciences
- Technical Report Writing
- Probability and Statistics
- Thermodynamics

II YEAR

- Mathematics III
- Humanities Electives
- Object Oriented Programming
- Electronic Devices
- Digital Design
- Discrete Structures for Computer Science

- Principles of Economics (or) Principles of Management
- Data Structures and Algorithms
- Microprocessors and Interfacing
- Control Systems
- Signals and Systems
- Microelectronic Circuits
- Environmental Studies

Summer Term: Practice School I

III YEAR

- Open / Humanities Electives
- Analog and Digital VLSI Design
- Computer Architecture
- Communication Networks
- Discipline Electives

- Open / Humanities Electives
- Real Time Operating Systems
- Network Programming
- Discipline Electives

IV YEAR

- Open Electives
- Discipline Electives

- Practice School-II / Thesis or Thesis and Electives

* This is an operative pattern for the students as approved by the Senate appointed committee, subject to change if the situation warrants

- **Discipline Core Courses - 48 Units (14 Courses)**
- **Discipline Electives - 12 Units (4 Courses)**

- **Humanities Electives - 8 Units (3 Courses)**
- **Open Electives - 15 Units (5 Courses)**

Discipline Elective Courses

- Robotics
- VLSI Design
- Network Security
- Database Systems
- Internet of Things (IoT)
- Blockchain Technology
- Medical Instrumentation
- Control System Laboratory
- Artificial Intelligence for Robotics
- Neural Networks and Fuzzy Logic
- Computer Based Control Systems
- FPGA Based System Design Laboratory

- Cloud Computing
- Parallel Computing
- Artificial Intelligence
- Software Engineering
- Digital Signal Processing
- Digital Image Processing
- Embedded System Design
- Human Computer Interaction
- Software for Embedded Systems
- Quantum Architecture and Programming
- Data Storage Technologies and Networks
- Machine Learning for Electronics Engineers

BACHELOR OF ENGINEERING in MATHEMATICS & COMPUTING



"Empowering engineering solutions through mathematics and computing."

The B.E. Mathematics and Computing is an ideal choice for the students who are interested in the interplay between mathematical & statistical theory and modern computational tools for applications in Data Sciences, Computational Finance, and Scientific Computing. It is designed to equip students with an appropriately strong foundation in Mathematics & Statistics, and required Computer Science basics for computational thinking and enables them to develop and apply analytical and problem-solving skills in a variety of fields in Engineering including IT industry, Finance sector and Scientific organizations. With a focus on both theoretical and

computational aspects of mathematics and computing, this program prepares students for a wide range of careers in industry, academics, and research & development.

Higher Studies: Numerous opportunities for Masters & PhD in this field in leading universities in USA, UK, Germany, Australia, India, China, Japan etc

CAREER PATHWAYS

Job Roles

- Data Scientist
- Finance Analyst
- Regulatory Model Developer
- R&D Engineer
- Software Engineer

Job Opportunities In

- Banking Industry
- Insurance Companies
- Business Consulting
- IT Companies
- Trading Companies
- Government Agencies
- Quality Assurance
- Audit Firms
- Tax and Advisory Services

B.E. MATHEMATICS & COMPUTING

Semester-wise pattern*

First Semester

I YEAR

- Mathematics I
- Biology Laboratory
- General Biology
- Chemistry Laboratory
- General Chemistry
- Physics Laboratory
- Engineering Graphics
- Mechanics, Oscillations, and waves

Second Semester

- Mathematics II
- Workshop Practice
- Computer Programming
- Electrical Sciences
- Technical Report Writing
- Probability and Statistics
- Thermodynamics

II YEAR

- Mathematics III
- Linear Algebra and Applications
- Object Oriented Programming
- Discrete Mathematics
- Elementary Real Analysis
- Humanities Electives
- Environmental Studies

- Principles of Economics (or) Principles of Management
- Numerical Analysis
- Data Structures & Algorithms
- Numerical Optimization
- Stochastic Calculus and Application to Finance
- Scientific Computing Laboratory

Summer Term: Practice School I

III YEAR

- Algebra I
- Foundations of Data Science
- Statistical Data Analysis
- Mathematical Modelling
- Humanities Electives
- Discipline Electives

- Design and Analysis of Algorithms
- Computational Partial
- Differential Equations
- Humanities Electives
- Discipline Electives
- Open Elective

IV YEAR

- Open Electives
- Discipline Electives

- Practice School-II / Thesis or Thesis and Electives

* This is an operative pattern for the students as approved by the Senate appointed committee, subject to change if the situation warrants

▪ **Discipline Core Courses - 48 Units (15 Courses)**

▪ **Discipline Electives - 12 Units (4 Courses)**

▪ **Humanities Electives - 8 Units (3 Courses)**

▪ **Open Electives - 15 Units (5 Courses)**

Discipline Elective Courses

- Data Mining
- Cryptography
- Graph Mining
- Deep Learning
- Network Security
- Image Processing
- Machine Learning
- Artificial Intelligence

- Computer Graphics
- Study/Lab/Design Project
- Applied Stochastic Process
- Derivatives and Risk Management
- Introduction to Statistical Inference
- Computation of Option Pricing Models
- Time Series Analysis and Forecasting
- Mathematical Theory of Finite Element Methods

Software Tools:

AutoCAD | CATIA | SOLIDWORKS | ANSYS | MSC ADAMS | MATLAB

BACHELOR OF ENGINEERING in MECHANICAL ENGINEERING



Mechanical Engineering is the Broadest Path to Innovation and Design for the Future

As one of the multidisciplinary core engineering field, our world-class Mechanical Engineering department is dedicated to providing students with a comprehensive education that combines theoretical learning with practical hands-on experience. Mechanical Engineering offers students the chance to develop transferable skills and critical thinking abilities to solve complex industry and global problems.

Mechanical Engineers learn to solve Engineering Problems in Design, Optimization, Manufacturing, Thermo-fluids and Engineering Management. Our curriculum is designed to cover all the core topics of Mechanical Engineering, as well as specialized areas such as Robotics and Automation, Mechatronics, Energy Conversion, Energy Management, Materials and 3D Printing, HVAC, and Aeronautics. With hands-on training in industry-standard softwares our students are prepared to take on real-world challenges.

At BITS Pilani, Dubai Campus students are provided opportunities to be associated with professional organizations and clubs:

- American Society of Mechanical Engineers (ASME)
- American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE)
- BITS Motorsport (BMS)
- Mechanical Engineering Association (MEA)
- BITS Aerospace Society (BAEROS)

Our faculty is also engaged in cutting-edge research in Robotics, Energy Management, Thermo-Fluids and Material Testing through well-equipped labs.

Higher Studies: Several graduates have pursued Master's programs in fields such as Mechanical Engineering, Aerospace Engineering, Industrial Engineering, Automobile Engineering, Materials Science, Design Engineering, Robotics and Automation, Manufacturing Engineering, Mechatronics, Energy Management, and Business Administration at renowned global institutions including, ETH Zurich, Carnegie Mellon University, The University of British Columbia, Hong Kong University of Science & Technology, Stanford University, University of Liverpool, McMaster University, Georgia Tech, Purdue University, University of Glasgow, The University of Tokyo, University of Colorado Boulder, The University of Adelaide, and IIMs in India.

CAREER PATHWAYS

Companies Hiring

- | | |
|----------------------------|----------------------|
| ■ Akzo Nobel | ■ Daikin McQuay |
| ■ The Armored Group | ■ PWC |
| ■ Schindler Group | ■ Unilever |
| ■ Siemens | ■ Emerson |
| ■ Lucy Electric | ■ Schneider Electric |
| ■ Al Shirawi | ■ Lamprell |
| ■ Taurani Group | ■ Atlas Copco |
| ■ Hydro Middle East | ■ OTIS |
| ■ Channeline International | ■ Johnson Controls |
| ■ Fractal Systems | and many more... |

Job Roles

- | | |
|----------------------------|-------------------------|
| ■ Design Engineer | ■ Technology Specialist |
| ■ Production Engineer | ■ Mechatronics Engineer |
| ■ Quality Control Engineer | ■ Aerospace Engineer |
| ■ Consultants | ■ Automotive Engineer |
| ■ Estimation Engineer | |

B.E. MECHANICAL ENGINEERING

Semester-wise pattern*

First Semester

I YEAR

- Engineering Graphics
- Biology Laboratory
- General Biology
- Chemistry Laboratory
- General Chemistry
- Mathematics I
- Physics Laboratory
- Mechanics, Oscillations and Waves

Second Semester

- Thermodynamics
- Technical Report Writing
- Computer Programming
- Electrical Sciences
- Mathematics II
- Probability and Statistics
- Workshop Practice

II YEAR

- Mathematics III
- Mechanics of Solids
- Fluid Mechanics
- Materials Science & Engineering
- Applied Thermodynamics
- Humanities Electives

- Principles of Economics (or) Principles of Management
- Advanced Mechanics of Solids
- Manufacturing Processes
- Heat Transfer
- Mechanisms and Machines
- Humanities Electives
- Environmental Studies

Summer Term: Practice School I

III YEAR

- Open / Humanities Electives
- Design of Machine Elements
- Advanced Manufacturing Processes
- Manufacturing Management
- Engines, Motors and Mobility
- Discipline Electives

- Open / Humanities Electives
- Computer-Aided Design
- Vibrations and Control
- Engineering Optimization
- Prime Movers & Fluid Machines
- Discipline Electives

IV YEAR

- Open Electives
- Discipline Electives

- Practice School-II / Thesis or Thesis and Electives

* This is an operative pattern for the students as approved by the Senate appointed committee, subject to change if the situation warrants

▪ **Discipline Core Courses - 48 Units (15 Courses)**

▪ **Discipline Electives - 12 Units (4 Courses)**

▪ **Humanities Electives - 8 Units (3 Courses)**

▪ **Open Electives - 15 Units (5 Courses)**

Discipline Elective Courses

- Combustion
- Gas Dynamics
- Aircraft Propulsion
- Automotive Vehicles
- Finite Element Methods
- Power Plant Engineering
- Material Characterization
- Mechanisms and Robotics
- Principles of Aerodynamics
- Flight Mechanics and Control
- Mechatronics and Automation
- Computer Aided Manufacturing
- Artificial Intelligence for Robotics
- Composite Materials and Design
- Fuel Cell Science and Technology
- Heating and Cooling of Buildings
- Quality Control, Assurance and Reliability

- Wind Energy
- Renewable Energy
- Aircraft Structures
- Lean Manufacturing
- Energy Management
- Supply Chain Management
- Energy Storage Technologies
- Industry 4.0 in Manufacturing
- Computational Fluid Dynamics
- Rocket and Spacecraft Propulsion
- Introduction to Sports Engineering
- Refrigeration and Air Conditioning
- Solar Thermal Process Engineering
- Data Mining in Mechanical Sciences
- Total Product Integration Engineering
- Reverse Engineering and Rapid Prototyping

Software Tools:

AutoCAD | CATIA | SOLIDWORKS | ANSYS | MSC ADAMS | MATLAB | Abaqus FEA

BACHELOR OF ENGINEERING in MECHANICAL with specialization in AEROSPACE



Pioneering Innovation and Design for the skies and beyond

The Mechanical Engineering program with specialization in Aerospace aims to expose the students to the fields of aerodynamics, propulsion, structures, and flight mechanics and controls for airborne vehicles and systems. The program is designed to cover the thrust areas such as Aerodynamics (low- and high-speed), Biofuels and Propulsion Systems, Aircraft Structures, light-weight Composite Materials, and Spacecraft Design. We aim to promote “a new scientific and technical culture”, contributing to the development of a skilled, knowledgeable workforce in the field of aerospace technologies.

With hands-on training, through well-equipped industry standard laboratory facilities and softwares, our students are prepared to take on real-world challenges. Our faculty is also engaged in cutting-edge research in several areas of mechanical and aerospace engineering.

At BITS Pilani, Dubai Campus students are provided opportunities to be associated with professional organizations and clubs:

- BITS Aerospace Society (BAEROS)
- American Society of Mechanical Engineers (ASME)
- American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE)
- BITS Motorsport (BMS)
- Mechanical Engineering Association (MEA)

Higher Studies: Numerous Opportunities for Masters and PhD in this field in leading universities such as Stanford, Georgia Tech., Carnegie Mellon, ETH Zurich, Hong Kong University of Science & Technology, Purdue University, CU Boulder, University of Glasgow.

CAREER PATHWAYS

Job Roles

- Aerospace Engineer
- Principal Engineer (Aerodynamics)
- Structural Engineer
- Design Engineer
- Production Engineer
- Quality Control Engineer
- Engineering Consultants
- Estimation Engineer
- Technology Specialist
- Mechatronics Engineer
- Automotive Engineer

Job Opportunities In

- Military Logistics Services
- Aircraft Maintenance Companies
- Airline Companies
- Aircraft Manufacturing
- Space Science Research Labs
- Space Tech Start Ups
- Space Organizations
- Defence Tech Companies

B.E. MECHANICAL with specialization in AEROSPACE

Semester-wise pattern*

First Semester

I YEAR

- Engineering Graphics
- Biology Laboratory
- General Biology
- Chemistry Laboratory
- General Chemistry
- Mathematics I
- Physics Laboratory
- Mechanics, Oscillations and Waves

Second Semester

- Thermodynamics
- Technical Report Writing
- Computer Programming
- Electrical Sciences
- Mathematics II
- Probability and Statistics
- Workshop Practice

II YEAR

- Mathematics III
- Mechanics of Solids
- Fluid Mechanics
- Material Science & Engineering
- Applied Thermodynamics
- Humanities Electives

- Environmental Studies
- Principles of Economics (or) Principles of Management
- Advanced Mechanics of Solids
- Manufacturing Processes
- Heat Transfer
- Mechanisms and Machines
- Humanities Electives

Summer Term: Practice School I

III YEAR

- Open/Humanities Electives
- Design of Machine Elements
- Advanced Manufacturing Processes
- Manufacturing Management
- Engines, Motors & Mobility
- Discipline Electives

- Open/Humanities Electives
- Computer-Aided Design
- Vibrations and Control
- Engineering Optimization
- Prime Movers & Fluid Machines
- Discipline Electives

IV YEAR

- Open Electives
- Discipline Electives

- Practice School-II / Thesis or Thesis and Electives

* This is an operative pattern for the students as approved by the Senate appointed committee, subject to change if the situation warrants

- **Discipline Core Courses - 48 units (16 courses)**
- **Discipline Electives - 12 units (4 courses)**

- **Humanities Electives - 8 units (3 courses)**
- **Open Electives - 15 units (5 courses)**

Discipline Elective Courses

- Gas Dynamics
- Aircraft Structures
- Aircraft Propulsion
- Introduction to Flight
- Principles of Aerodynamics
- Flight Mechanics and Control
- Rocket and Spacecraft Propulsion
- Composite Materials and Design
- Spacecraft Systems
- Unmanned Aerial Vehicle
- Orbital Mechanics

Note: The students are required to complete a minimum of 4 and maximum of 9 courses from the discipline elective course list

Software Tools:

AutoCAD | CATIA | SOLIDWORKS | ANSYS | MSC ADAMS | MATLAB | Abaqus FEA

B.E. Robotics & Industrial Automation



"Where Robots Work and Ideas Move Industry."

The Robotics and Industrial Automation Engineering programme focuses on the use of advanced technologies to control and automate manufacturing processes. It involves computerized control systems, sensors, other tools that operate and manage machinery and equipment in industrial settings. The field offers numerous advantages including reduced downtime, increased productivity, lower energy consumption and costs, enhanced safety, minimized human errors, simplified maintenance procedures, improved quality, greater consistency and repeatability in processes.

Highlights of B.E. Robotics & Industrial Automation Programme

From smart factories to medical robots and autonomous vehicles, this program prepares you for a future where machines think, act, and transform industries.

- **Manufacturing:** Robots for assembly lines, material handling, and quality control.
- **Healthcare:** Surgical robots, rehab devices, and medical imaging systems.
- **Agriculture:** Automated systems for planting, harvesting, and crop monitoring.
- **Logistics & Transportation:** Warehousing robots, delivery drones, and autonomous vehicles.
- **Aerospace & Defense:** Robots for space missions, underwater research, and military use.
- **Industrial Automation** uses computerized systems, sensors, and control technologies to streamline manufacturing.

CAREER PATHWAYS

The possible career pathways for students graduating with this programme are as follows:

- Robotics/Automation/Mechatronics Engineer
- Robotics Technician
- Robotics Software Engineer
- Field Robotics Engineer
- Controls Engineer.

Related companies in UAE & India are as follows:

- Weidmuller
- Emerson Automation
- Schneider Electric
- Siemens
- Honeywell
- FESTO
- OMRON
- Mitsubishi Electric
- Schindler
- Unique World Robotics
- Digi Robotics
- IQ Robotics
- Reliable Robotics
- Fun Robotics
- Emirates Robotics
- Ameca Robotics
- Micropolis Robotics
- DEWA
- Emirates Airlines
- Techrobotix
- Sentient Lab
- Fractal Systems
- Larsen & Toubro
- Daikin Middle East
- SEMEA Electrical & Automation.

Software Tools:

**Python | C++ | MATLAB |
ROS | OpenCV | AutoCAD |
SOLIDWORKS | Abaqus FEA**

B.E. Robotics & Industrial Automation

Semester-wise pattern*

First Semester

I YEAR

- Biology Laboratory
- General Biology
- Chemistry Laboratory
- General Chemistry
- Mathematics I
- Physics Laboratory
- Mechanics, Oscillations and Waves
- Engineering Graphics

Second Semester

- Mathematics II
- Workshop Practice
- Computer Programming
- Electrical Sciences
- Technical Report Writing
- Probability and Statistics
- Thermodynamics

II YEAR

- Mathematics III
- Humanities Electives
- Materials and Mechanics for Robotics
- Introduction to Mechanisms & Robotics
- Foundations of Data Structures and Algorithms
- Sensors, Actuators and Signal Conditioning

- Principles of Economics Or Principles of Management
- Control Systems
- AI for robotics
- Embedded Systems for Robotics
- Signals and Systems
- Environmental Studies

Summer Term: Practice School I

III YEAR

- Open/Humanities Electives
- Fluid Power Systems
- Robot Dynamics & Control
- Computer Vision
- Discipline Electives (Capstone Project-1)

- Open/Humanities Electives
- IoT for Industrial Automation
- Computer aided design
- Autonomous Mobile Robotics
- Industrial Automation & Control
- Discipline Electives (Capstone Project-2)

IV YEAR

- Open Electives
- Discipline Electives

- Practice School-II / Thesis or Thesis Or Thesis (9) and Electives (6 to 9)

* This is an operative pattern for the students as approved by the Senate appointed committee, subject to change if the situation warrants

▪ **Discipline Core Courses - 48 units (15 courses)**

▪ **Discipline Electives - 12 units (4 courses)**

▪ **Humanities Electives - 8 units (3 courses)**

▪ **Open Electives - 15 units (5 courses)**

Discipline Elective Courses

- Data Mining
- User Interfaces
- Deep Learning
- Image Processing
- Machine Learning
- Internet of Things
- Artificial Intelligence
- Real-Time Systems
- Energy Management
- Lean Manufacturing
- Finite Element Methods
- Mechanisms and Robotics
- Introduction to MEMS
- Data Mining in Mechanical Sciences
- Digital Twins in Mechanical Engineering

- Design of Machine Elements
- Engineering Optimization
- Computer Aided Manufacturing
- Additive Manufacturing
- Communication Networks
- Computer based Control Systems
- Medical Instrumentation
- Energy Storage Systems
- Microprocessors and Interfacing
- Modern Communication Technologies
- Real Time Operating Systems
- Virtual Instrumentation
- Advanced Process Control
- Modern Control Systems
- Analog and Digital VLSI Design
- Bio-Inspired Intelligence: Algorithms and Applications

- Data Communications and Networks
- Fuzzy Logic and Applications
- Human Computer Interaction
- Neural Networks and Fuzzy Logic
- Remote Sensing and Image Processing
- Object Oriented Programming
- Foundations of Data Science
- Software Development for Portable Devices
- Software for Embedded Systems
- Autonomous Aerial Vehicles
- Cyber Physical Systems and Security
- Digital Signal Processing
- Industry 4.0 in Manufacturing
- Underwater Robotics
- Autotronics and Vehicle Intelligence

PRACTICE SCHOOL (INTERNSHIP)

BITS is a pioneer in the field of university industry collaboration and its innovative, bold and radical internship program called the Practice School has no parallel.

We are a leader in the university-industry partnerships, setting the standard with our approach that presents the students a platform to transfer their theoretical knowledge to practical settings. The Practice School (PS) program is indeed a unique opportunity for students to bridge the gap between the classroom and the real world. Over the course of 7.5 months, students work as employees of real organizations, applying their knowledge and skills to real-life challenges under the supervision of faculty and professional experts.

The PS program includes two components: PS I, a 2-month summer internship after the second year, and PS II, a 5½ - month semester-long internship in the final year. During this time, students will participate in daily activities, work on assigned projects, and be evaluated on their interdisciplinary approach, decision-making skills, leadership, teamwork, and more.

The PS program has opened the door for fruitful collaborations between faculty and industry, providing students with an unparalleled educational experience that prepares them for success in the professional world.

Over 30% of our students get job offers from the companies where they complete their Practice School commitment.

COLLABORATION WITH OVER 300 COMPANIES FOR INTERNSHIP

- Emerson Automation Solutions
- PwC Middle East
- Atkins
- Zutari
- Lamprell
- Siemens
- ESRI
- Reckitt Benckiser (Arabia) FZE
- Thyssen Krup
- Schindler
- Schneider Electric
- Dubai Islamic Bank
- Sharaf Retail
- SEMEA Electrical & Automation FZE
- The Emirates Group
- Al Shirawi
- MSD DIC
- Bosch
- Aster Hospital Group
- Star Cement
- Fly Dubai
- Carrier Middle East Limited
- Landmark Group
- GRUNDFOS Gulf Distribution FZE
- Lucy Switchgear FZE
- TUV Rheinland
- Organon
- Casamia
- Aqar Landscape LLC
- Protiviti Member Firm Middle East
- Daikins
- TUV Nord
- Weidmueller
- Petrofac
- Redington
- Sharaf DG.
- Volta
- Savills LLC
- Lloyd's Register EMEA
- Emirates Hospital Group
- Wipro
- Civil Matrix Contracting LLC
- Al-Bawadi and many more

EMPLOYERS SPEAK



"When it comes to recruitment, we always look for excellence. That is why we partnered with BITS Pilani, Dubai as their students are professional, full of hunger and have all the drive that we look for in new recruits".

Jide Ore

Talent Acquisition Manager,
Emerson Middle East & Africa



"Our experience with BITS Pilani has been very rewarding and satisfying as an organisation, we see the quality of talent to be sustainable and strategic investment to us when we host their internship program".

Rainier Tayao

HR Director,
Schindler Group, U.A.E.



"The students have positively added to the projects that we are working on by taking active development, testing and QA roles. They exhibited good sense of teamwork, academic acumen and were eager to learn and assimilate new technologies".

Satish Kumar Menon

Talent Acquisition Manager,
Emerson Middle East & Africa

EXTRA CURRICULAR ACTIVITIES



Extracurricular Activities at BPDC provide a refreshing symphony to the students involved in the rigors of academic activities. We understand the importance of a comprehensive education and hence we provide a dynamic environment with ample opportunities for students to pursue their interests and showcase their talents through a diverse range of extra-curricular and co-curricular activities. Whether you are looking to develop your social skills, embrace your cultural heritage, or strengthen your interpersonal relationships, we have something for everyone.

INTER-UNIVERSITY EVENTS & FESTS

Some of our popular inter-university events include:

- JASHN - The Cultural Extravaganza
- BSF - BITS Sports Festival
- Enginuity - The BITS Tech Fest

STUDENT CLUBS

The rich mosaic of student life is enhanced by the student clubs. Student clubs add a vibrant and diverse dimension to campus life. With active clubs focused on dance, astronomy, music, art, sports, photography, drama, public speaking, literary, wall street, quiz, fashion design, and social and environmental issues, there is something for everyone. The aim of each club is to enrich the social and cultural experience on campus, offering students a platform to showcase their talents, pursue their interests, and make meaningful connections. Join the community and discover how student clubs can bring new energy and excitement to your college experience.

PROFESSIONAL ASSOCIATIONS

Experience the best of both worlds with opportunities to engage with professional organizations and academic disciplines. Join a community of like-minded individuals and gain valuable insights into your field. Our student chapters offer a unique platform to connect with industry leaders, build your professional network, and stay ahead of the curve in your academic pursuits. Take your education to the next level and explore the limitless possibilities of professional growth and development.

We are one of the few institutions in the Middle East which have student chapters of renowned professional bodies, such as ACM, ASME, AIChE, ASHRAE, IEEE, SAE, SWE and WIE. A wealth of resources and opportunities, are provided to the students including distinguished lectures, conferences and seminars, international competitions and other activities throughout the semester.

Student Clubs and Professional Bodies play an active role in various campus events that provide an opportunity for all students to build lifelong memories.

INTERNATIONAL STUDENT SERVICES

We have a dedicated International Student Services Division which facilitates the student visa process for non-residents of the UAE through Dubai International Academic City (DIAC) as required by BPDC and the Government of the UAE.

This facility is also extended to UAE resident students who require BPDC to facilitate their visa.



INSURANCE

Dubai's Health Insurance Law mandates that all residents must maintain a level of health insurance that either meets or exceeds the minimum benefits outlined by the Dubai Health Authority (DHA). All students are required to have a valid medical insurance policy covered in the UAE, which includes direct billing. This mandatory medical insurance ensures that every student has access to healthcare services. Possessing valid medical insurance, students can feel assured about receiving the necessary medical care. To facilitate this process, we have partnered with a leading insurance company to provide comprehensive medical insurance coverage for our students. Students who are already insured must furnish evidence of coverage that is valid in the UAE.

ON-CAMPUS ACCOMMODATION

BITSians experience a well-rounded student life, complete with comfortable and convenient on campus housing options. Our hostel facilities provide students with everything they need to thrive in a supportive and nurturing environment.

BPDC offers separate hostel facilities for male and female students. Living on campus is mandatory for students who are non-residents of the UAE and are on University visa.

Our hostels are designed to provide a safe, secure, and comfortable living environment. Each hostel building is staffed with a resident warden, who is a BPDC staff and other essential personnel, ensuring the well-being of our students. The rooms are fully air-conditioned and single occupancy, offering students a private and comfortable space to study and rest. Each room is equipped with a bed, cupboard, and study table. The hostels provide Wi-Fi access, recreational rooms, a laundromat, a gymnasium, first-aid facilities, and sports equipment.





DINING HALLS

The caterers provide quality meals daily which includes breakfast, lunch, snack and dinner complying with the health and safety regulation as stipulated for food preparation and distribution. Students choose the menu items from multiple diet options that cater to the diverse dietary needs of our students including strictly vegetarian meals.

Students enjoy special menu during festivals and special events. During the month of Ramadan, kitchen staff ensures that special fasting meals are available for those who need it.

The hostel fee includes all the meals and utilities.

MAHA MALL

The one-stop shop for exclusive BPDC merchandise.

From mugs to sweatshirts, take home a piece of the BPDC spirit.



MINI MART

The campus Mini Mart serves all students, staff and visitors during regular working hours. One can easily purchase many items including food and stationery items.

Strategically placed vending machines offer snacks and beverages throughout the campus, ensuring that everyone has convenient access to refreshments at all times.

With a variety of dining options available, we strive to make it easy for students and faculty to take breaks, grab a bite, and recharge for the rest of the day. The campus has it all to make sure you have what you need to stay focused and productive.

CAFETERIA

Coffee, tea, mouth-watering snacks or a meal...our cafeteria serves it all!

Visitors and students have access to our cafeteria food and drinks throughout the day.

STUDENT WELL-BEING

COUNSELING SERVICES

BPDC is mindful of the effects of separation from family, loneliness, stress, etc. that students may experience during their transition into the university. We understand the importance of mental health and well-being.

A professional Counselor is available on campus for students and staff. Those requiring support and guidance can approach the Counselor who is available Monday through Friday during the working hours on campus and through email and phone at other times.

The counseling sessions are completely confidential, ensuring that students can feel comfortable and safe when discussing their concerns. Our goal is to provide students with the support they need to succeed both academically and personally, and our on-campus counseling services play an important role in achieving this.



HEALTH SERVICES

Student's health and safety is of utmost importance to all of us. We offer 24 x 7 on-campus paramedical facilities to all students. There is a clinic on campus and a doctor is available for consultation during stipulated hours. A male nurse stays on campus and is available for first aid and emergency care. A female nurse visits the campus on all days.

In the event of a serious emergency, students are promptly transported to the hospital for further treatment.



SAFE AND INCLUSIVE ENVIRONMENT

BITS Pilani Dubai Campus has a zero-tolerance for violence, drug abuse, ragging, sexual harassment, and any other form of unacceptable behavior. Any act of misconduct will result in disciplinary action, up to and including suspension or expulsion. University is committed to fostering a safe and inclusive learning environment for all students.

FACULTY ADVISORS

Our goal is to provide a personalized and supportive academic experience, equipping students with the tools they need to succeed. Every student at the time of admission is assigned a faculty member who will be the Advisor for the entire program of study.

Faculty Advisors at BPDC provide the support to students in reaching their full potential. Advisors work closely with students to help them overcome any educational and vocational challenges. Through regular check-ins and discussions, students receive guidance on their performance, reducing stress and maximizing opportunities for academic success.

In addition to one-on-one advising, students also have the opportunity to meet with their course faculty during designated consultation hours. Here, they can clarify any doubts and receive help in their studies.



LIBRARY AND LABORATORIES

Whether you are an early bird or a night owl, BPDC's library is designed to accommodate your needs, providing a supportive and inspiring environment for learning and growth.

BPDC's library is a modern and welcoming space that provides students with the resources they need to succeed. Spread over two floors, the library offers a variety of study areas, including reading halls, reference sections, stacking areas, discussion rooms, and individual study carrels. Additionally, students have access to a digital library and internet browsing center.

The library is open seven days a week, weekdays from 7:15 am to 10:00 pm and weekends from 1:00 pm to 6:00 pm. During crucial times, such as comprehensive exams and tests, the library extends its hours, staying open until midnight to support students in their academic pursuits.

The library has a collection of 24,476 print books, 5116 e-books, 7502 e-journals, 7000+ e-magazines & e-newspapers, 1611 CD-ROMs, 3237 project reports, theses/dissertations, and 918 back volumes in the core disciplines of Engineering, Management and Sciences.



We have well-equipped laboratories of international standards for different lab-based courses.

- Biology Lab
- Advanced Molecular Biology Lab
- Analog Electronics Lab
- Chemical Engineering Lab I & II
- Chemistry Lab
- Communication Lab
- Computer Aided Design Lab
- Computer Programming Lab
- Concrete Lab
- Creative Lab
- Digital Design Lab
- Electrical Machines Lab
- Engineering Graphics Lab
- Environmental Lab
- Fluid Mechanics Lab
- Genetic Engineering Lab
- Heat Transfer Lab
- Industrial Microbiology & Bioprocess Engineering Lab
- Instrumental Methods of Analysis Lab
- Instrumentation Lab
- Intelligent Computing Lab
- Mechatronics & Robotics Lab
- MEMS Lab
- Materials Testing Lab
- Microbiology Lab
- Microprocessor Programming & Interfacing Lab
- Petroleum Lab
- Physics Lab
- Power Electronics Lab
- Prime Movers and Fluid Machinery Lab
- Process Control Lab
- Production Technique I & II Lab
- Signal and Simulation Lab
- Software Systems Lab
- Aerospace Material & 3D Printing Lab
- Soil Mechanics and Foundation Engineering Lab
- Surveying Lab
- Transportation Engineering Lab
- Workshop
- Thermo Fluids Lab
- Advanced Computing Lab

IT INFRASTRUCTURE FACILITIES AND SUPPORT SERVICES

The Campus, the hostels rooms and outdoor area are covered with the latest technology HP Aruba Wi-Fi network. Cisco network Infrastructure is available for the LAN environment. Both Wi-Fi and wired network provides the internal and external connectivity to fulfill the computing needs of the BPDC community. Hyper converged Infrastructure(HCI) is adopted to support the server infrastructure requirement of the campus. Most of our key critical applications are configured in virtualized environment with load balancing and cluster mode. We have Business continuity and disaster recovery plan in place and we have a disaster recovery site is configured in different location to continue our operation in case of any unforeseen scenario. Periodic backup is scheduled by disk to disk method to backup the data as snapshots.



CISCO TELEPRESENCE SYSTEMS

Cisco Telepresence system (under BITS Connect 2.0 project) is implemented in the campus which is interconnected to all BITS' campuses in India.

CISCO TELEPRESENCE MEETING ROOM

Telepresence Systems (Model: IX5200 – CISCO) is the 1st device of its kind in the entire CCG installed by CISCO in BITS Pilani, Dubai Campus. This model incorporates an elegant triple 4K Ultra High Definition camera cluster, three high-definition 70 inch LCD screens and theater quality audio to bring people together as if they were just across the table. Other meeting rooms are equipped with Model No.: EX-90 & SX-10 used for a smaller group members or individual can have one to one interaction across all the campuses. These technologies make it possible for users to communicate as naturally as they would in person.

CISCO TELEPRESENCE CLASSROOM

The Classroom is equipped with C90 system with 160 seating capacity used for inter campus meetings and lectures. The benefits of this technology will be easy to connect with management across all three campuses, offering more specialized electives to students, knowledge exchange between students from the other three campuses, helping students to attend guest lecture sessions from a remote location, expediting the recruitment process.

E-CAMPUS SOLUTION

As an initiative and creative vision from the Director of BITS Pilani, Dubai Campus to make the Institute a smart campus, E-campus solution is adopted to achieve the Smart University environment. E-campus involves cashless transactions using a single card solution for all institute facilities. The faculty members, staff and students can access all the services and facilities in the University campus by using E-Campus smart card. It reduces the administrative overheads, automates the workflow efficiently for a complete university lifecycle of students. All the classrooms are equipped with integrated Interactive screens to enable the teaching learning into more interactive manner. As a part of Institute sustainability and energy saving initiative, one of the laboratory is installed with Virtual Desktop Infrastructure (Centralize Lab Infrastructure). The advantage of the VDI laboratory is Secure, environment friendly, flexible, centrally manageable and reduce power and bandwidth consumption implemented in one of the lab. Easy manageability, flexibility, accessibility, user experience, increased productivity, secure cost energy saving are key advantages of the VDI.

ONLINE LEARNING AND EVALUATION PLATFORM

Institute has adopted online platforms such as Impartus, Webex, Google Meet, Zoom, Google Classroom and Microsoft Teams to continue the education and make the learning uninterrupted to the students during the pandemic situation. Online evaluation platforms such as CodeTantra, Socrative, Google Classroom, WebEx and Google Meet are being used for conducting examination. Lab and lab comprehensive examination are conducted by using the virtual labs such as Platify, Cisco WebEx hands on lab and physical labs by remote lab component. All the classrooms are equipped with Interactive screens. Moodle Learning management system (LMS) is implemented for faculty members and students which enables educators to build, share content, conduct assessment and communicate with the students.

BITS SERVICE DESK PORTAL

Online service desk portal is implemented to all the users in the campus. Every support request is assigned a unique ticket number which the users can track the progress and response online. It will streamline the support request and provide a effective service to the users.



TELEPRESENCE ROOM



CREATIVE LAB

BPDC's Creative Lab is a haven for our enterprise-driven students! This on-campus facility is open 24X7 all throughout the year!!

Students past and present test their ideas, create prototypes, work on their projects etc. at the Creative Lab.



INCUBATION CENTRE

BPDC has a vibrant entrepreneurial ecosystem that encourages innovation and start-ups. This entrepreneurial ecosystem took a further leap forward by joining the Dubai Business Incubator Network (DBIN) through partnership with Dubai SME as a certified business incubator.

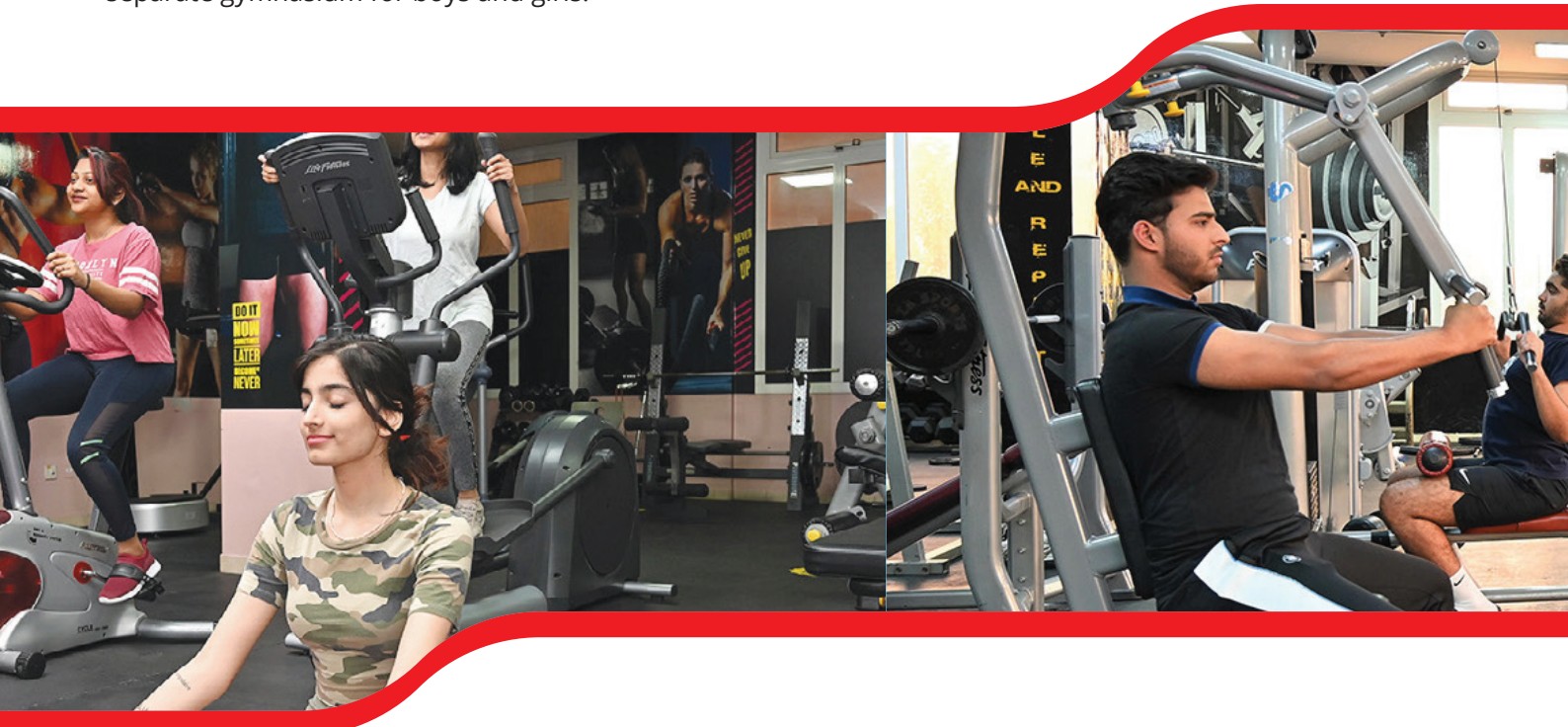
The setting up of the Incubation Centre with this partnership has transformed the university into an entrepreneurial hub by supporting students with access to mentors, business experts and legal advisors, thereby creating new opportunities for the student entrepreneurs to make significant contributions to the society and intellectual capital of the country.

SPORTS AND FITNESS

Our commitment to providing a well-rounded student experience extends to our sports facilities, giving students the opportunity to stay healthy and active. Whether you prefer indoor or outdoor sports, our facilities have you covered.

BPDC offers a wide range of indoor and outdoor sports facilities. Our indoor sports complex includes facilities for badminton, table tennis, carrom, chess, etc.

For those who look for engaging in outdoor sports, we offer tennis, basketball, volleyball, throwball, football, handball, and cricket practice nets. We also have a turf cricket ground, a grass football field, and a professional synthetic track for athletics. In addition to these facilities, BPDC provides a separate gymnasium for boys and girls.



TRANSPORT SERVICES

BPDC provides transportation services on a semester basis within Dubai, as well as to Sharjah and Ajman. The pickup and drop locations within each emirate are evaluated and approved by our transport department to ensure feasibility.

Hostel students are also given the added convenience of a free shuttle service during the weekends, providing them with easy access to the nearest metro station or local mall. Additionally, students participating in our Practice School program who are staying in the hostel are provided with free transportation to their designated workstation.



CAREER SERVICES

The **Career Services Division** at BITS Pilani, Dubai Campus empowers students to explore and pursue meaningful, fulfilling career paths through comprehensive support and guidance.

Employment and Higher Education Support

Through our comprehensive support and guidance system students obtain relevant information, tools, and opportunities, whether they are seeking to secure their ideal jobs or pursue further education. The Career Services Division plays a crucial role in preparing students for their professional journeys through targeted initiatives such as skill development workshops, career counseling sessions, mock interviews, and networking events. These activities ensure that students are equipped with the necessary skills and industry connections to thrive in today's competitive job market.

The division manages a comprehensive range of internship and placement initiatives, including both on-campus and off-campus recruitment drives, career fairs, and strategic partnerships with prominent local and international companies. These efforts are aimed at providing students with valuable career opportunities and strengthening our industry connections.

The Career Services team, through the Center for Higher Education, offers vital guidance and support to students pursuing higher education opportunities. Serving as a central hub, it facilitates a range of activities, including higher education counseling, college fairs, admission guidance, and on-campus preparation sessions for GRE and GMAT. These resources ensure students are well-prepared and informed as they navigate their academic futures.

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CENTER FOR HIGHER EDUCATION

The **Center for Higher Education** at BITS Dubai was founded with a vision to provide comprehensive advising, knowledge and skills essential for students to successfully pursue their international education aspirations. For students aspiring to continue their academic journey, our Centre for Higher Education offers personalized guidance on selecting the right universities, including prestigious Ivy League institutions. We assist students in identifying programs that align with their academic and career goals, helping them transition smoothly into the next phase of their education or career.

The center's primary objective is to equip our students with the necessary tools and insights to make well informed decision regarding their higher education pathways. Serving as a focal point for various activities, the center offers:

- Personalized Higher education counselling sessions both one on one and group sessions
- Expert guidance on graduate program applications and admission process
- Preparation session for GRE/GMAT examinations
- Informative session tailored to specific Ivy league colleges and universities.

Through this holistic approach, we are committed to supporting students in achieving their full potential, whether that's through immediate employment or advanced studies.

Several Graduates have opted for further studies and have completed or pursuing Masters and Ph.D. from reputed universities across the world. Some of the reputed Universities are:

- Biology Harvard University, USA
- John Hopkins University, USA
- IIM Calcutta, India
- IIM Bangalore, India
- Illinois Institute of Technology, USA
- McMaster University, Canada
- MIT Sloan School of Management, USA
- New Jersey Institute of Technology, USA
- Rutgers-State University of New Jersey, USA
- Stanford University, USA
- Texas A&M University, USA
- University of Buffalo, New York, USA
- University of California, USA
- University of Cambridge, UK
- University of Leicester, UK
- University of Manchester, UK
- University of Pennsylvania, USA
- University of Texas, Dallas & Austin, USA
- University of Toronto Canada & many more.



REPUTED COMPANIES HIRING OUR STUDENTS

- ABB, UAE
- Accenture Middle East, UAE
- BAIN & Company, UAE
- Bosch, UAE
- Careem, UAE
- Dell International Services, India
- DNVGL, UAE
- Dubizzle / Bayut, UAE
- EMERSON, UAE
- Coca-Cola, UAE
- Noon, UAE
- Ernst & Young, India
- ESRL Sharjah, UAE
- Mitsubishi Elevators, UAE
- Etisalat, UAE
- Fly Dubai, UAE
- Haliburton, KSA
- Honeywell Middle East, UAE
- HSBC, India
- IBM, India
- Johnson Controls, UAE
- L&T, UAE
- Lucy Switchgear, UAE
- Maersk, UAE
- McKinsey, India
- Microsoft, USA
- Nestle, UAE
- Oracle, USA
- Panasonic-Middle East, UAE
- Petrofac International, UAE
- Procter & Gamble Gulf FZE, UAE
- Protiviti, UAE
- PWC, UAE
- Qualcomm, UAE
- Reckitt, UAE
- Redington Gulf
- RTA Dubai, UAE
- Schindler, UAE
- Schneider Electric, UAE
- Siemens LLC, UAE
- Sony Ericsson NC, USA
- Standard Chartered Bank, UAE
- Talabat, UAE
- Tandeeth-Emirates NBD Group Company, UAE
- Tata Consultancy Services, India
- Tetrapak, UAE
- WS Atkins, UAE
- Wipro, India
- Worlery Parsons, UAE
- Zomato, UAE and many more...



Coca-Cola

Honeywell

flydubai

amazon

Emirates
SkyCargo



Careem



L'ORÉAL



FLEXIBILITIES IN FIRST DEGREE PROGRAMME



DUAL DEGREE

Our flexible educational structure allows students to earn two degrees in a reasonable period of time, giving you a competitive edge in your chosen fields. All admitted students have the opportunity to participate in this exciting programme, which is based on their performance during the first year of study. By taking an additional 2-3 semester and paying the additional semester's fee, they will receive two degrees in their chosen disciplines, opening up a world of possibilities for their future.

Imagine the potential you will unlock by earning a degree in Chemical Engineering & mastering Computer Science, both at the same time!



MINOR PROGRAMMES

Expand your education with BPDC's Minor Programme. Choose an area of your interest from the list below and graduate with a minor in

- Data Science
- Aeronautics
- Robotics and Automation
- Finance
- Entrepreneurship
- Materials Science and Engineering
- Philosophy, Economics and Politics
- Computing and Intelligence

You can enroll at the end of your first year and use your open elective slots to fulfill the Minor program requirements.



ADMISSION WITH ADVANCED STANDING

BPDC offers "Admission with Advanced Standing" for students with preparation higher than the minimum entrance requirement having studied one year or two of the undergraduate degree program in some other recognized university. This allows them to receive credit for coursework completed at the previous university with good academic performance matching with the course requirements of the program to which they seek admission. Thus, the students avoid repeating classes, and their hard work and efforts elsewhere are recognized.

Eligibility criteria for admission with advanced standing is available in the Admission Bulletin



ADMISSION IN BOTH SEMESTERS

Join the elite cohort of students at BPDC with flexible admission intake periods. Start in either semester! If you missed the deadline for September intake, then our second-semester admissions for February intake offer a chance to become a BITSian. Benefit from our 4-year, well-rounded program including Practice School and a diverse student body.



CASUAL STUDENT PROGRAMME

BITS Pilani, Dubai Campus is proud to offer a unique opportunity for students and community members to deepen their expertise and stay ahead of the curve by registering as casual students. With a wide range of courses available for auditing, you will have access to top-notch faculty, state-of-the-art resources, and engaging learning experiences that will take your skills and knowledge to new heights.



TRANSFER BETWEEN DISCIPLINES

BPDC allows you to transfer to a different discipline that aligns with your goals and interests by applying at the end of first year. Exceptionally meritorious students in a limited number of cases can expect to compete for transfer to another program based on the availability of seats. The students are given credit for what they have studied till then towards the requirements of the program to which they seek the transfer. This allows you to take control of your education and reach your full potential.

READY TO APPLY?

APPLICATION PROCEDURE

Here is a step-by-step guide for the online application process.

- Visit the BITS Pilani Dubai Campus Admission page: www.bits-pilani.ac.in/dubai or scan the QR code given below to access the online admission portal.
- Access the application form by clicking on **"Apply Online"**
- Fill in the form with your personal and academic details, program preference & few additional details.
- Pay application fee of AED 220.
- Upload a copy of your passport, 10th and 12th grade marksheets.

» Scan to Apply



- The estimated time to complete the online application process is approximately 20 minutes.
- **Note:** The admission process may vary depending on the program and the specific requirements of BITS Pilani, Dubai Campus.

ELIGIBILITY CRITERIA

- For admission to all first degree programmes, candidates must have passed the requisite qualifying examination, which is the General Secondary Education Certificate Examination of Ministry of Education, U.A.E. or All India Senior School Certificate Examination of the Central Board of Secondary Education (CBSE) or A Level from Cambridge International examinations / Edexcel or IB Diploma or its equivalent from any recognized State, National or International board.
- The candidates must have obtained a minimum 60% overall aggregate of marks in the qualifying examination and a minimum aggregate of 60% in Physics, Mathematics and Chemistry / Biology / Computer Science or any other vocational subjects with at least 50% marks in each subject. However, for admission to B.E. Biotechnology, candidates without Mathematics in Grade 12 will also be accepted with a minimum aggregate of 60% in Physics, Biology and Chemistry or any other vocational subject with at least 50% marks in each subject.

- If instead of marks any letter grades or GPA are awarded (or any other system of evaluation), their equivalences in marks will be decided by the Admissions Committee. If a Candidate has secured less than 50% marks in any one of these subjects - Physics, Mathematics /Biology, but has passed in the subjects and meets the aggregate criteria mentioned above, he/she may be considered for provisional admission. The admission will be confirmed only upon the successful completion of a foundation course in that subject with a minimum grade of " C ", offered by the university preferably before the commencement of the first semester.
- English is the medium of instruction and a good proficiency in English is essential for admission. Hence, candidates who have completed their qualifying examination from a Non-English medium school must have a TOEFL Score of 500 in paper based test or 61 in internet based test or have an IELTS Score of 6. If required, they may also be assessed by the Admission committee for English comprehension.



Meet Our Admissions Team

FEE STRUCTURE

FEE STRUCTURE FOR ACADEMIC YEAR 2025-26 FIRST DEGREE (B.E.PROGRAMMES)

The normal duration of the program is 4 years (8 Semesters)

First Semester: **September - January** Second Semester: **February - June**

PARTICULARS	AMOUNT
A. One-time Fee (payable at the time of Admission)	
Application Fee**	AED 220
Admission Fee*	AED 2,000
Activity Fee*	AED 1,200
Caution Deposit\$	AED 5,000
B. Tuition Fees	
Tuition Fee*(payable in 2 installments)	AED 26,420 per semester
Practice School I (PS I) Fee*	AED 6,000
(One-time fee payable after second year for the summer term)*	
C. Visa and Insurance Fee (For students availing Visa/Insurance)	
Visa Fee (For Students on Visa provided by the institute)	
Fresh Visa Fee**	AED 2,900
Visa Renewal Fee**	AED 2,150 per annum
Medical Insurance Fee*	AED 3,000 per annum
(Current prevailing Visa & Insurance Fee, subject to change)	
D. Hostel Fee (For students availing Hostel)	
Hostel Fee***	AED 15,000 per semester
Facility Fee*	AED 850 per annum
Summer Term (if availing) ***	AED 5,200 per term
Hostel Caution Deposit\$	AED 2,000
*Laundry charges and Service charge for using refrigerator in room are additional	
E. Transport Fee** (For Day Scholars availing Institute Transport)	
For Dubai	AED 2,500 per semester
For Sharjah & Ajman	AED 2,800 per semester
(Current prevailing Transport Fee, subject to change)	

Note: A fee of AED 4000 per course plus VAT is applicable for casual students registering for any course on audit only during any semester apart from a one-time admission fee.

*VAT of 5% is applicable on this fee; **VAT of 5% is included in this fee; ***VAT of 5% will be charged on the food cost of this fee.

\$ Refundable on graduation or on leaving the institute, after due adjustment for damages, breakages caused by the student, if any.

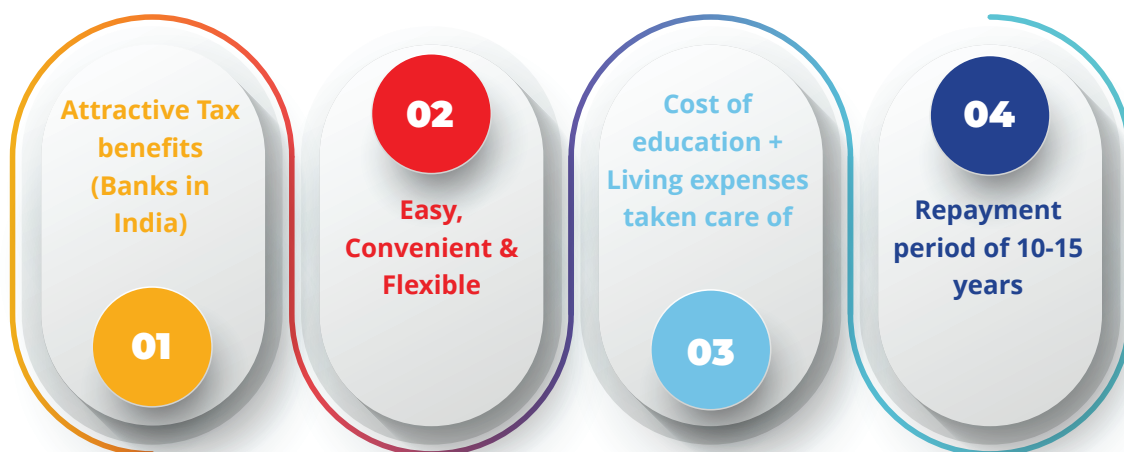
FINANCIAL ASSISTANCE

BITS Pilani, Dubai has an arrangement with SBI, ICICI, HDFC Credila, Axis Bank in India for providing student loans to all the students seeking admission in Dubai Campus and with Emirates NBD UAE for providing financial assistance. Cover the full cost of your education and most of your living expenses with competitive interest rates and flexible repayment options. Repay your loan after graduation with some Indian banks.

**FOR UAE RESIDENTS, 0% INTEREST FREE
INSTALLMENT PLAN FOR FEE PAYMENT BY**



ADDITIONAL ADVANTAGES:



IMPORTANT DATES FOR FIRST DEGREE ADMISSION 2025-26

EVENT	First Semester	Second Semester
Last Date for receipt of Application	25 June 2025	15 December 2025
Finalization of admission list	30 June 2025	18 December 2025
Reporting for Admission	26 August 2025	30 January 2025
Orientation	26 Aug - 29 Aug 2025	30 January 2026
Registration	29 August 2025	30 January 2026
Classwork begins	1 September 2025	2 February 2026

Note: Applications received after the last date will be considered as 'Late Applications' and will be accepted for admissions, subject to merit and availability of seats.

SCHOLARSHIPS & CONCESSIONS

MERIT SCHOLARSHIPS

1.1 Board Toppers

Students who secure the top position in their grade 12 exams in their respective school board, (Ministry of Education, UAE, CBSE India, or any other State, National, or International boards) are eligible for a 50% scholarship on their first year tuition fee. To receive this scholarship, candidates must have a minimum overall aggregate of 90% or equivalent in their qualifying exam.

1.2 UAE School Topper

Candidates who have secured one of the top two positions in the 12th Grade examination in their respective schools are given a merit scholarship of 50% of the first year tuition fee. This scholarship is limited to students studying in the U.A.E. Schools only and the overall aggregate of the candidate must be a minimum of 90% or equivalent in the qualifying exam to avail the scholarship.

1.3 Merit in BITSAT (BITS Admission Test)

Tuition fee scholarship:

Earn a merit scholarship for your first year tuition fee & hostel concession with a BITSAT score as given below:

BITSAT Score	Scholarship on 1st year tuition fee	Hostel Concession For 4 Years
>260	75% of Tuition Fee*	25%
216 - 259	50% of Tuition Fee*	25%
175 - 215	25% of Tuition Fee	25%
150 - 174	-	25%

This scholarship only applies to the first-year tuition fees and students will be eligible for the merit scholarships in subsequent semesters as mentioned under 1.5 below.

**Note: Students who receive this scholarship will not be eligible for any other scholarship or concession in the first year.*
BITSAT is not needed for admission to BITS PILANI DUBAI CAMPUS

1.4 Excellence in the Qualifying Examination

Receive a merit scholarship & hostel concession at BITS Pilani Dubai Campus based on your school leaving qualifying exam as given below:

Qualifying Examination overall aggregate	Scholarship on I -Year Tuition Fee	Hostel Concession For 4 Years
95% & above	40%	25%
90% to 94.9%	25%	25%
80% to 89.9%	15%	25%
70 % to 79.9%	10%	25%

1.5 Merit Scholarship for Continuing Students:

Students with a CGPA of 8.0 or above on a 10.0 scale at the end of previous semester will be given the following merit scholarship on the tuition fee for the current semester, based on the CGPA secured for the normal duration of the programme:

CGPA	Scholarship on Tuition fee
≥ 9	25%
8.5 to 8.99	15%
8.0 to 8.49	10%

1.6 Sports Concession

a. **ENTRY LEVEL:** Students who have participated and won medals in International championship by representing their Country are given a **scholarship of 50% of the first year tuition fee** and students who have participated in International Championships are given **scholarships of 20% of first year tuition fee**. The Sport and the eligibility criteria of all applicants will be evaluated on a case by case basis and the scholarship will be awarded based on the committee's recommendation.

b. **CONTINUING STUDENTS:** Students who participate and win in three inter-university tournaments at the end of one academic year will be considered for a **scholarship of 20% of the tuition fee** for the current year for the normal duration of the program based on the committee's recommendation.

FEE CONCESSIONS

2.1 For GCC/Arab Nationals

GCC/Arab Nationals with exceptional academic performance may receive up to 100% concession on their tuition fee for the normal duration of the programme. This discount is based on their Grade 12 performance and their ability to maintain a minimum CGPA of 4.5 throughout the programme. Limited scholarships are available under this category.

2.2 For the sudden bereavement of earning member of the family

The University provides support for students who experience financial hardship due to the sudden demise of the sole earning family member of the family. In such a case, the tuition fee for that semester will be fully waived. In subsequent semesters, a reduction of up to 75% of tuition fee may be offered based on individual circumstances, need, conduct and academic performance of the student.

2.3 People of Determination

All students with special needs who meet the admission requirements are eligible for a 15% reduction in tuition fee throughout the programme, provided they maintain satisfactory academic performance in each semester.

2.4 For Siblings

- Families who have more than one child enrolled concurrently are eligible for a 25% tuition fee concession for the second child until the first child graduates.

Please Note:

- All students must pay their specified fee at the time of Admission and any amount awarded as scholarship will be adjusted in the subsequent fee payment.
- At any given time, a student can avail more than one scholarship/ concession unless otherwise mentioned, provided the total scholarship/concession amount does not exceed more than 50% of the tuition fee amount of that semester including all or any scholarship/concession availed by the student.
- A student can avail hostel fee concession under one category only.
- The decision of the university shall be final and cannot be contested on all matters of scholarships and concessions at BITS Pilani, Dubai Campus. The university has the right to discontinue the scholarship/concession at any time in case the student is found guilty in any disciplinary case.
- While Scholarship based on "Merit in Qualifying Examination" will be given automatically based on the Grade 12 marks of the student, application for scholarship under all other categories must be submitted within one month from the date of registration to the Admissions Office. Any application received after one month will not be considered.

INNOVATION & ENTREPRENEURSHIP

BITS Pilani, Dubai has taken a leap forward to encourage innovation & entrepreneurship skills among students by taking the following Initiatives

INITIATIVES BY BITS PILANI, DUBAI

- Incubation Centre – Powered by Dubai SME
- 24x7 Creative Lab
- Minor program offered in Entrepreneurship with courses such as
- Entrepreneurship, New Venture Creation, Business Management and more
- Seed funding support through Alumni and Dubai SME
- Meeting and interactions with experts and investors
- Mentor allocation to all start-ups through alumni & Dubai SME
- Encouraging students participation in various events, pitching sessions and B-Plan competitions



PRESENTING AT INNOVATION HUB

MORE THAN 50 STARTUPS INITIATED IN THE LAST 5 YEARS



24X7 CREATIVE LAB



Falcon X, started by Mr. Prabhakar Reddy, and **MASER**, started by Mr. Prateek Suri, both alumni of BITS Pilani, Dubai Campus have achieved Unicorn status.

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ADMISSIONS OFFICE:

Dubai International Academic City
 P.O.Box: 345055,
 Dubai, UAE
 Tel: +971 4 275 3700 / +971 4 275 3711

3rd floor, Spaces & More Business Centre
 Plot No: 645, Above SBI, Road No. 36, Jubilee Hills,
 Hyderabad, Telangana 500033
 Mob: +91 7207899869 / +91 9121907799

✉ admission@bitspilanidubai.ae
 🌐 www.bits-dubai.ac.ae/admissions/

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