ANNEXURE 21.3

Curriculum of the Proposed New, Unique and Distinct Programmes

DETAILED PROJECT REPORT

For Grant of Deemed to be University Status under Distinct Category (Existing Institution)

Ramachandra-DTBU

Curriculum of the
Proposed New, Unique, Distinct (D), Industry-Integrated (I), Multidisciplinary (M) &
Transdisciplinary (T) Programmes

Sl.No	School of	UG/PG/ Integrated	Name of the Program	Duration (Yrs)
1	Engineering	UG BTech	Semiconductor Technology & Chip Design	4
2		PG M Tech	Embedded Systems for Automotive & Defence Electronics	2
3		UG-PG Integrated BTech - MTech	Robotics, Automation & Intelligent Manufacturing	5
4	Applied Sciences	UG BSc	Semiconductor Devices & Nano-Electronics	3
5		UG BSc	Robotronics	3
6		UG BSc	Sustainable Technology & Climate Systems	3
7	Computing	UG BTech	Quantum Computing	4
8		UG BSc	Artificial Intelligence & Data Analytics	3
9		UG BSc	Cyber Systems & Forensic Sciences	3
10		M.Sc. (Research)	Foundation Models & Domain-Specific LLMs	2
11	Management	UG BBA (Hons.)	Entrepreneurship & Start-ups	4
12		PG MBA	Start-up Failure Analytics & Case Research	2
13		UG BCom	Digital Commerce & Financial Technologies	3
14		UG BVoc	Aquaculture Operations & Farm Management	3
15	Liberal Arts	UG BA	Psychology, Cognitive Science & Mental Health	3
16		UG BA	Fashion Designing - Digital Fashion	3
17		UG-PG Integrated	Interior Designing & Smart Systems	4
18	Indian Knowledge Systems	UG BA	Yoga & Life Sciences	3
19	Architecture	B.Arch-M.Arch Integrated	Integrated Architecture & Engineering	6

Curriculum Structure and Credit Allocation for the Proposed Distinct Programmes

B.Tech. – Semiconductor Technology & Chip Design (160 Credits)

Year 1: Foundation Sciences & Engineering Basics (40 Credits)
I SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Mathematics I (Calculus & Linear Algebra)	4
2	Engineering Physics (Semiconductor Physics Basics)	4
3	Engineering Chemistry / Environmental Science	3
4	Introduction to Programming (C / Python)	3
5	Basics of Electrical & Electronics Engineering	3
6	Communication Skills & Professional English	2
7	Engineering Graphics / Workshop Practice	1

Total Credits – 20

II SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Mathematics II (Probability & Statistics)	4
2	Materials Science for Electronics	3
3	Digital Electronics & Logic Design	3
4	Object-Oriented Programming	3
5	Network Theory & Basic Circuits	3
6	Design Thinking & Innovation	3
7	Internship / Industrial Orientation	1

Total Credits – 20

Year 2: Core Electronics & Semiconductor Fundamentals (40 Credits)
III SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Engineering Mathematics III (Transforms & Numerical Methods)	4
2	Electronic Devices & Circuits	4
3	Analog Electronics	3
4	Signals & Systems	3
5	Semiconductor Materials & Crystal Growth	3
6	Humanities Elective (Ethics / Indian Constitution)	2
7	Internship	1

Total Credits – 20

IV SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Integrated Circuits & Applications	4
2	Microprocessors & Microcontrollers	3
3	Semiconductor Device Physics	3
4	Digital System Design	3
5	Open Elective I (AI / IoT / Data Analytics)	3
6	Electronics Laboratory	3
7	Internship	1

Total Credits – 20

Year 3: Chip Design, Fabrication & Advanced Technologies (40 Credits)
V SEMESTER (20 Credits)

S. No	Course Title	Credits
1	VLSI Design Fundamentals	4
2	CMOS Technology	3
3	Semiconductor Manufacturing Processes	3
4	Hardware Description Languages (VHDL / Verilog)	3
5	Professional Elective I (Power Devices / MEMS)	3
6	Minor Project I (Chip Design Simulation)	4

Total Credits – 20

VI SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Analog & Mixed Signal VLSI Design	3
2	Digital IC Design & Verification	3
3	Semiconductor Packaging & Testing	3
4	Nanoelectronics & Advanced Devices	3
5	Open Elective II (Photonics / Embedded AI)	3
6	Minor Project II (Fabrication / Design Project)	5

Total Credits – 20

Year 4: Industry Integration, Research & Specialization (40 Credits)
VII SEMESTER (20 Credits)

S. No	Course Title	Credits
1	System-on-Chip (SoC) Design	3
2	Semiconductor Reliability & Failure Analysis	3
3	Professional Elective II (AI Accelerators / RF IC Design)	3
4	Professional Elective III (Automotive Electronics / Quantum Devices)	3
5	Emerging Trends in Semiconductor Technology	3
6	Semester Internship (Industry / Research Lab)	4
7	Major Project Phase I	1

Total Credits – 20

VIII SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Intellectual Property Rights & Technology Entrepreneurship	4
2	Major Project Phase II (Industry / Research Based)	10
3	Open Elective III (Interdisciplinary)	3
4	Seminar / Viva-Voce / Portfolio	3

Total Credits – 20

Credit Distribution:
Basic Sciences & Mathematics – 24 Credits
Engineering Sciences (Electrical, Electronics, Materials) – 18 Credits
Core Semiconductor & Chip Design Engineering – 46 Credits
Professional & Specialization Electives – 24 Credits
Open Electives – 9 Credits
Projects & Internships – 27 Credits
Humanities & Management – 12 Credits

Total Credits = 160

M.Tech. – Embedded Systems for Automotive & Defence Electronics (80 Credits)

Year 1: Advanced Core & Embedded Systems Foundations (40 Credits)
I SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Advanced Engineering Mathematics	4
2	Embedded Systems Architecture & Design	4
3	Advanced Digital System Design	3
4	Real-Time Operating Systems	3
5	Automotive Electronics Fundamentals	3
6	Research Methodology & Technical Writing	2
7	Industry Orientation / Laboratory Practice	1

Total Credits – 20

II SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Advanced Microcontrollers & Processors	4
2	Automotive Communication Protocols (CAN, LIN, FlexRay)	3
3	Defence Electronics Systems & Standards	3
4	Embedded Software Development	3
5	Professional Elective I (ADAS / Radar Systems / Power Electronics)	3
6	Embedded Systems Laboratory	3
7	Internship / Industrial Training	1

Total Credits – 20

Year 2: Specialization, Industry Integration & Research (40 Credits)
III SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Functional Safety & Automotive Standards (ISO 26262)	3
2	Secure Embedded Systems & Cybersecurity	3
3	Avionics & Defence Embedded Systems	3
4	Professional Elective II (Autonomous Vehicles / Missile Guidance Systems)	3
5	Open Elective (AI for Embedded Systems / IoT for Defence)	3
6	Minor Project (Industry / Defence Application)	4
7	Internship	1

Total Credits – 20

IV SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Intellectual Property Rights & Technology Management	4
2	Major Project Phase I	6
3	Major Project Phase II (Industry / Research Based)	8
4	Seminar / Viva-Voce	2

Total Credits – 20

Credit Distribution:
Advanced Mathematics & Basic Sciences – 8 Credits
Core Embedded Systems Engineering – 24 Credits
Automotive & Defence Specialization Courses – 20 Credits
Professional & Open Electives – 9 Credits
Projects & Internships – 15 Credits
Humanities, Research & Management – 4 Credits
[
Total Credits = 80

Integrated B.Tech. – M.Tech. in Robotics, Automation & Intelligent Manufacturing (200 Credits)

Year 1: Engineering Foundations (40 Credits)
I SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Mathematics I (Calculus & Linear Algebra)	4
2	Engineering Physics (Mechanics, Sensors & Measurements)	4
3	Engineering Chemistry / Environmental Science	3
4	Introduction to Programming (C / Python)	3
5	Basics of Electrical & Electronics Engineering	3
6	Communication Skills & Professional English	2
7	Engineering Graphics / Workshop Practice	1

Total Credits – 20

II SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Mathematics II (Probability & Statistics)	4
2	Materials Science & Manufacturing Processes	3
3	Digital Electronics & Logic Design	3
4	Object-Oriented Programming	3
5	Engineering Mechanics	3
6	Design Thinking & Innovation	3
7	Internship / Industrial Orientation	1

Total Credits – 20

Year 2: Core Engineering & Automation Fundamentals (40 Credits)
III SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Signals & Systems	4
2	Sensors, Transducers & Instrumentation	4
3	Analog Electronics & Linear Circuits	3
4	Microprocessors & Microcontrollers	3
5	Fluid Power Systems (Hydraulics & Pneumatics)	3
6	Humanities Elective (Ethics / Industrial Psychology)	2
7	Internship	1

Total Credits – 20

IV SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Control Systems Engineering	4
2	Industrial Automation & PLC Programming	3
3	Electrical Machines & Drives	3
4	Robotics Engineering Fundamentals	3
5	Open Elective I (AI / IoT / Manufacturing Systems)	3
6	Mechatronics & Automation Laboratory	3
7	Internship	1

Total Credits – 20

Year 3: Robotics, Control & Smart Manufacturing (40 Credits)
V SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Advanced PLC & SCADA Systems	3
2	Industrial Robotics & Machine Vision	3
3	Embedded Systems Design	3
4	Smart Sensors & Actuators	3
5	Professional Elective I (Digital Manufacturing / AI in Automation)	3
6	Minor Project I (Robotic System Design)	5

Total Credits – 20

VI SEMESTER (20 Credits)

S. No	Course Title	Credits
1	CNC Machines & Flexible Manufacturing Systems	3
2	Industrial IoT & Cyber-Physical Systems	3
3	Motion Control & Servo Systems	3
4	Human–Machine Interface & Safety Systems	3
5	Open Elective II (Smart Factories / Industry 5.0)	3
6	Minor Project II (Prototype Development)	5

Total Credits – 20

Year 4: Advanced Automation, AI & Industry Integration (40 Credits)
VII SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Smart Manufacturing & Industry 5.0	3
2	Autonomous Robots & Mobile Robotics	3
3	Artificial Intelligence & Machine Learning for Automation	3
4	Digital Twins & Simulation Technologies	3
5	Professional Elective II (Healthcare / Agricultural / Defence Robotics)	3
6	Semester Internship (Industry / Research Lab)	4
7	Major Project Phase I	1

Total Credits – 20

VIII SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Maintenance Engineering & Reliability	3
2	Advanced Manufacturing Analytics	3
3	Professional Elective III (Additive Manufacturing / Collaborative Robots)	3
4	Open Elective III (Interdisciplinary)	3
5	Major Project Phase II	8

Total Credits – 20

Year 5: PG-Level Specialization, Research & Industry Integration (40 Credits)
IX SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Advanced Robotics & Intelligent Systems	4
2	Advanced Control Systems & Optimization	4
3	Research Methodology & Technical Writing	3
4	Professional Elective IV (AI-driven Manufacturing / Autonomous Systems)	3
5	Industry-Aligned Project / Internship	4
6	Seminar	2

Total Credits – 20

X SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Intellectual Property Rights & Technology Entrepreneurship	4
2	Integrated Major Project (Industry / Research Based)	12
3	Viva-Voce / Portfolio Evaluation	4

Total Credits – 20

Credit Distribution:
Basic Sciences & Mathematics – 28 Credits
Engineering Sciences (Electrical, Electronics, Mechanics, Materials) – 32 Credits
Core Robotics, Automation & Manufacturing Engineering – 68 Credits
Professional & Specialization Electives – 32 Credits
Open Electives – 12 Credits
Projects & Internships – 24 Credits
Humanities, Management & Research – 4 Credits
Total Credits = 200

B.Sc. – Semiconductor Devices & Nano-Electronics (120 Credits)

Year 1: Basic Sciences & Electronics Foundations (40 Credits)
I SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Mathematics I (Calculus & Linear Algebra)	4
2	Engineering Physics I (Mechanics & Modern Physics)	4
3	Engineering Chemistry / Environmental Science	3
4	Basics of Electrical & Electronics Engineering	3
5	Programming Fundamentals (C / Python)	3
6	Communication Skills & Professional English	2
7	Laboratory Practice I (Physics / Electronics)	1

Total Credits – 20

II SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Mathematics II (Probability & Statistics)	4
2	Engineering Physics II (Solid State Physics)	4
3	Electronic Circuits & Network Theory	3
4	Digital Electronics Fundamentals	3
5	Materials Science for Electronics	3
6	Design Thinking & Innovation	2
7	Internship / Industrial Orientation	1

Total Credits – 20

Year 2: Core Semiconductor Devices & Nano-Electronics (40 Credits)
III SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Semiconductor Physics	4
2	Electronic Devices & Applications	4
3	Analog Electronics	3
4	Signals & Systems	3
5	Measurement & Instrumentation	3
6	Humanities Elective (Ethics / Indian Constitution)	2
7	Internship	1

Total Credits – 20

IV SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Integrated Circuits & Fabrication Technology	4
2	Microprocessors & Microcontrollers	3
3	Nano-Materials & Nano-Structures	3
4	Digital System Design	3
5	Open Elective I (Photonics / IoT / Embedded Systems)	3
6	Semiconductor Devices Laboratory	3
7	Internship	1

Total Credits – 20

Year 3: Advanced Devices, Applications & Industry Integration (40 Credits)
V SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Nano-Electronic Devices	4
2	VLSI Fundamentals	3
3	Semiconductor Manufacturing Processes	3
4	Optoelectronic Devices	3
5	Professional Elective I (MEMS / Power Semiconductor Devices)	3
6	Minor Project (Device Characterization / Simulation)	4

Total Credits – 20

VI SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Advanced Semiconductor Devices	3
2	Packaging, Testing & Reliability of Devices	3
3	Emerging Trends in Nano-Electronics	3
4	Open Elective II (AI for Electronics / Renewable Energy Devices)	3
5	Major Project (Industry / Research Based)	6
6	Seminar / Viva-Voce	2

Total Credits – 20

Credit Distribution:
    Basic Sciences & Mathematics – 20 Credits
    Core Electronics & Engineering Sciences – 28 Credits
    Semiconductor Devices & Nano-Electronics Core – 40 Credits
    Professional & Open Electives – 12 Credits
    Projects & Internships – 14 Credits
    Humanities & Skill Development – 6 Credits
Total Credits = 120

B.Sc. – Robotronics (120 Credits)

Year 1: Foundations of Science, Computing & Robotics (40 Credits)
I SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Mathematics I (Calculus & Linear Algebra)	4
2	Engineering Physics I (Mechanics & Sensors)	4
3	Engineering Chemistry / Environmental Science	3
4	Introduction to Programming (C / Python)	3
5	Basics of Electrical & Electronics Engineering	3
6	Communication Skills & Professional English	2
7	Laboratory Practice I (Physics / Electronics)	1

Total Credits – 20

II SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Mathematics II (Probability & Statistics)	4
2	Engineering Physics II (Electromagnetism & Modern Physics)	4
3	Digital Electronics Fundamentals	3
4	Engineering Mechanics	3
5	Materials Science for Robotics	3
6	Design Thinking & Innovation	2
7	Internship / Industrial Orientation	1

Total Credits – 20

Year 2: Core Robotronics Systems & Automation (40 Credits)
III SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Signals & Systems	4
2	Sensors, Transducers & Instrumentation	4
3	Analog Electronics	3
4	Microprocessors & Microcontrollers	3
5	Actuators & Drive Systems	3
6	Humanities Elective (Ethics / Indian Constitution)	2
7	Internship	1

Total Credits – 20

IV SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Control Systems Engineering	4
2	Robotics Engineering Fundamentals	3
3	Embedded Systems Design	3
4	Mechatronics Systems	3
5	Open Elective I (AI / IoT / Data Analytics)	3
6	Robotronics Laboratory	3
7	Internship	1

Total Credits – 20

Year 3: Advanced Robotics, Applications & Industry Integration (40 Credits)
V SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Industrial Robotics & Automation	4
2	Mobile Robotics & Autonomous Systems	3
3	Machine Vision & Image Processing	3
4	Human–Robot Interaction	3
5	Professional Elective I (Service Robotics / Medical Robotics)	3
6	Minor Project (Robotic System Design)	4

Total Credits – 20

VI SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Artificial Intelligence for Robotics	3
2	Industrial Safety, Standards & Reliability	3
3	Emerging Trends in Robotronics	3
4	Open Elective II (Smart Manufacturing / Agricultural Robotics)	3
5	Major Project (Industry / Research Based)	6
6	Seminar / Viva-Voce	2

Total Credits – 20
Credit Distribution:
   Basic Sciences & Mathematics – 20 Credits
   Engineering Sciences (Electrical, Electronics, Mechanics) – 26 Credits
   Core Robotronics & Automation – 40 Credits
   Professional & Open Electives – 12 Credits
   Projects & Internships – 16 Credits
   Humanities & Skill Development – 6 Credits
Total Credits = 120

B.Sc. – Sustainable Technology & Climate Systems (120 Credits)

Year 1: Basic Sciences & Sustainability Foundations (40 Credits)
I SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Mathematics I (Calculus & Linear Algebra)	4
2	Environmental Physics & Earth Systems	4
3	Environmental Chemistry	3
4	Introduction to Sustainability & Climate Change	3
5	Programming Fundamentals (Python for Data Analysis)	3
6	Communication Skills & Professional English	2
7	Laboratory Practice I (Environmental Science)	1

Total Credits – 20

II SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Mathematics II (Probability & Statistics)	4
2	Ecology & Biodiversity Conservation	4
3	Renewable Energy Fundamentals	3
4	Basics of Electrical & Energy Systems	3
5	Materials Science for Sustainable Technologies	3
6	Design Thinking for Sustainability	2
7	Internship / Field Orientation	1

Total Credits – 20

Year 2: Core Climate Systems & Sustainable Technologies (40 Credits)
III SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Climate Science & Atmospheric Systems	4
2	Energy Conversion & Storage Technologies	4
3	Environmental Monitoring & Instrumentation	3
4	Geographic Information Systems (GIS)	3
5	Sustainable Water Resources Management	3
6	Humanities Elective (Environmental Ethics / Indian Knowledge Systems)	2
7	Internship	1

Total Credits – 20

IV SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Climate Modelling & Data Analytics	4
2	Solar, Wind & Bioenergy Systems	3
3	Sustainable Manufacturing & Circular Economy	3
4	Environmental Impact Assessment & Auditing	3
5	Open Elective I (Smart Cities / IoT for Environment)	3
6	Climate Systems Laboratory	3
7	Internship	1

Total Credits – 20

Year 3: Advanced Applications, Policy & Industry Integration (40 Credits)
V SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Climate Resilient Infrastructure & Technologies	4
2	Carbon Capture, Utilization & Storage	3
3	Sustainable Agriculture & Food Systems	3
4	Environmental Economics & Climate Finance	3
5	Professional Elective I (Green Hydrogen / Waste-to-Energy Systems)	3
6	Minor Project (Sustainability Assessment / Case Study)	4

Total Credits – 20

VI SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Climate Policy, Law & Governance	3
2	Life Cycle Assessment & Sustainability Metrics	3
3	Emerging Technologies for Climate Mitigation	3
4	Open Elective II (Disaster Management / Blue Economy)	3
5	Major Project (Industry / Research Based)	6
6	Seminar / Viva-Voce	2

Total Credits – 20

Credit Distribution:
　　Basic Sciences & Mathematics – 20 Credits
　　Core Environmental & Climate Sciences – 36 Credits
　　Sustainable Technology & Energy Systems – 32 Credits
　　Professional & Open Electives – 12 Credits
　　Projects & Internships – 14 Credits
　　Humanities & Skill Development – 6 Credits
Total Credits = 120

B.Tech. – Quantum Computing (160 Credits)

Year 1: Engineering Foundations & Basic Sciences (40 Credits)
I SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Mathematics I (Calculus & Linear Algebra)	4
2	Engineering Physics I (Classical Mechanics & Waves)	4
3	Engineering Chemistry / Environmental Science	3
4	Introduction to Programming (C / Python)	3
5	Basics of Electrical & Electronics Engineering	3
6	Communication Skills & Professional English	2
7	Engineering Graphics / Workshop Practice	1

Total Credits – 20

II SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Mathematics II (Probability & Statistics)	4
2	Engineering Physics II (Modern Physics)	4
3	Digital Electronics & Logic Design	3
4	Object-Oriented Programming	3
5	Data Structures & Algorithms	3
6	Design Thinking & Innovation	3
7	Internship / Industrial Orientation	1

Total Credits – 20

Year 2: Core Computing, Electronics & Quantum Foundations (40 Credits)
III SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Engineering Mathematics III (Complex Analysis & Transforms)	4
2	Signals & Systems	4
3	Computer Organization & Architecture	3
4	Analog Electronics	3
5	Foundations of Quantum Mechanics	3
6	Humanities Elective (Ethics / Indian Constitution)	2
7	Internship	1

Total Credits – 20

IV SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Linear Algebra for Quantum Computing	4
2	Probability Models & Random Processes	3
3	Operating Systems	3
4	Quantum Information Theory	3
5	Open Elective I (AI / Cryptography / IoT)	3
6	Quantum Computing Laboratory I	3
7	Internship	1

Total Credits – 20

Year 3: Quantum Algorithms, Hardware & Systems (40 Credits)
V SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Quantum Computing Fundamentals	4
2	Quantum Algorithms	3
3	Quantum Programming (Qiskit / Cirq)	3
4	Superconducting & Trapped-Ion Qubits	3
5	Professional Elective I (Quantum Simulation / Quantum Chemistry)	3
6	Minor Project I (Quantum Algorithm Design)	4

Total Credits – 20

VI SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Quantum Error Correction & Noise	3
2	Quantum Communication & Cryptography	3
3	Cryogenics & Quantum Hardware Systems	3
4	Quantum Machine Learning	3
5	Open Elective II (High Performance Computing / Advanced AI)	3
6	Minor Project II (Quantum System Implementation)	5

Total Credits – 20

Year 4: Industry Integration, Research & Specialization (40 Credits)
VII SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Scalable Quantum Architectures	3
2	Quantum Control & Measurement	3
3	Professional Elective II (Quantum Optimization / Quantum Finance)	3
4	Professional Elective III (Photonics / Advanced Materials for Qubits)	3
5	Emerging Trends in Quantum Technologies	3
6	Semester Internship (Industry / Research Lab)	4
7	Major Project Phase I	1

Total Credits – 20

VIII SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Intellectual Property Rights & Technology Entrepreneurship	4
2	Major Project Phase II (Industry / Research Based)	10
3	Open Elective III (Interdisciplinary)	3
4	Seminar / Viva-Voce / Portfolio	3

   Total Credits – 20

Credit Distribution:
   Basic Sciences & Mathematics – 28 Credits
   Engineering Sciences (Physics, Electronics, Computing) – 30 Credits
   Core Quantum Computing & Technologies – 44 Credits
   Professional & Specialization Electives – 24 Credits
   Open Electives – 9 Credits
   Projects & Internships – 25 Credits
Total Credits = 160

B.Sc. – Artificial Intelligence & Data Analytics (120 Credits)

Year 1: Mathematical, Computing & Data Foundations (40 Credits)
I SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Mathematics I (Calculus & Linear Algebra)	4
2	Introduction to Computer Systems	4
3	Programming Fundamentals (Python)	3
4	Basics of Statistics for Data Analysis	3
5	Digital Logic & Computing Fundamentals	3
6	Communication Skills & Professional English	2
7	Computing Laboratory I	1

Total Credits – 20

II SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Mathematics II (Probability & Distributions)	4
2	Data Structures & Algorithms	4
3	Database Management Systems	3
4	Exploratory Data Analysis	3
5	Introduction to Artificial Intelligence	3
6	Design Thinking & Innovation	2
7	Internship / Industrial Orientation	1

Total Credits – 20

Year 2: Core Data Analytics & Artificial Intelligence (40 Credits)
III SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Statistical Inference & Hypothesis Testing	4
2	Machine Learning Fundamentals	4
3	Data Warehousing & Data Mining	3
4	Object-Oriented Programming	3
5	Data Visualization Techniques	3
6	Humanities Elective (Ethics / Indian Constitution)	2
7	Internship	1

Total Credits – 20

IV SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Deep Learning & Neural Networks	4
2	Big Data Analytics	3
3	Natural Language Processing	3
4	Optimization Techniques for AI	3
5	Open Elective I (IoT Analytics / Business Analytics)	3
6	AI & Data Analytics Laboratory	3
7	Internship	1

Total Credits – 20

Year 3: Advanced AI Applications, Integration & Industry Practice (40 Credits)
V SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Computer Vision & Image Analytics	4
2	Time Series Analysis & Forecasting	3
3	Cloud Computing for Data Analytics	3
4	Responsible AI & Data Governance	3
5	Professional Elective I (Healthcare Analytics / Financial Analytics)	3
6	Minor Project (AI / Data Analytics Application)	4

Total Credits – 20

VI SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Advanced Machine Learning Techniques	3
2	AI in Industry & Smart Systems	3
3	Emerging Trends in Artificial Intelligence	3
4	Open Elective II (Cybersecurity Analytics / Marketing Analytics)	3
5	Major Project (Industry / Research Based)	6
6	Seminar / Viva-Voce	2

Total Credits – 20

Credit Distribution:
Mathematics & Statistics – 24 Credits
Core Computing & Programming – 26 Credits
Artificial Intelligence & Data Analytics Core – 40 Credits
Professional & Open Electives – 12 Credits
Projects & Internships – 14 Credits
Humanities & Skill Development – 4 Credits
Total Credits = 120

B.Sc. – Cyber Systems & Forensic Sciences (120 Credits)

Year 1: Computing Foundations & Cyber Systems Basics (40 Credits)
I SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Mathematics I (Discrete Mathematics & Linear Algebra)	4
2	Fundamentals of Computer Systems	4
3	Programming Fundamentals (C / Python)	3
4	Basics of Cyber Systems & Networking	3
5	Digital Logic & Computer Organization	3
6	Communication Skills & Professional English	2
7	Computing Laboratory I	1

Total Credits – 20

II SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Mathematics II (Probability & Statistics)	4
2	Data Structures & Algorithms	4
3	Operating Systems Fundamentals	3
4	Introduction to Cyber Security	3
5	Database Management Systems	3
6	Design Thinking & Innovation	2
7	Internship / Industrial Orientation	1

Total Credits – 20

Year 2: Core Cyber Security & Digital Forensics (40 Credits)
III SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Computer Networks & Protocols	4
2	Cryptography & Network Security	4
3	Web Technologies & Security	3
4	Digital Forensics Fundamentals	3
5	Secure Programming Practices	3
6	Humanities Elective (Ethics / Indian Constitution)	2
7	Internship	1

Total Credits – 20

IV SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Cyber Crime Investigation Techniques	4
2	System & Network Forensics	3
3	Malware Analysis & Reverse Engineering	3
4	Cloud Computing & Cloud Security	3
5	Open Elective I (IoT Security / Mobile Computing)	3
6	Cyber Forensics Laboratory	3
7	Internship	1

Total Credits – 20

Year 3: Advanced Forensics, Cyber Laws & Industry Integration (40 Credits)
V SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Ethical Hacking & Penetration Testing	4
2	Mobile & Wireless Forensics	3
3	Blockchain Technology & Security	3
4	Cyber Law, Policy & Governance	3
5	Professional Elective I (AI in Cyber Security / Financial Forensics)	3
6	Minor Project (Cyber Security / Forensic Case Study)	4

Total Credits – 20

VI SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Advanced Threat Intelligence & Incident Response	3
2	Digital Evidence Management & Reporting	3
3	Emerging Trends in Cyber Systems & Forensics	3
4	Open Elective II (Cyber Risk Management / Privacy Engineering)	3
5	Major Project (Industry / Research Based)	6
6	Seminar / Viva-Voce	2

Total Credits – 20
Credit Distribution:
   Mathematics & Statistics – 16 Credits
   Core Computing & Programming – 28 Credits
   Cyber Systems & Security Core – 44 Credits
   Digital Forensics & Legal Studies – 14 Credits
   Professional & Open Electives – 8 Credits
   Projects & Internships – 10 Credits
Total Credits = 120

M.Sc. (Research) – Foundation Models & Domain-Specific LLMs (80 Credits)

Year 1: Advanced Foundations of AI, ML & Language Models (40 Credits)
I SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Advanced Mathematics for Machine Learning	4
2	Statistical Learning Theory	4
3	Foundations of Artificial Intelligence	3
4	Deep Learning Architectures	3
5	Programming for AI Systems (Python & PyTorch)	3
6	Research Methodology & Scientific Writing	2
7	Laboratory / Tool Practicum (AI Frameworks)	1

Total Credits – 20

II SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Natural Language Processing	4
2	Transformer Architectures & Attention Models	4
3	Representation Learning & Embeddings	3
4	Scalable Machine Learning Systems	3
5	Professional Elective I (Vision-Language Models / Multimodal AI)	3
6	Advanced AI Laboratory (Model Training & Evaluation)	3

Total Credits – 20

Year 2: Specialization, Industry Integration & Research (40 Credits)
III SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Foundation Models & Large Language Models	4
2	Domain-Specific LLMs (Healthcare / Finance / Law / Engineering)	4
3	Model Optimization, Fine-Tuning & Alignment	3
4	Responsible AI, Ethics & Governance	3
5	Open Elective (Edge AI / Knowledge Graphs / AI Security)	3
6	Industry Internship / Research Practicum	3

Total Credits – 20

IV SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Intellectual Property Rights & Technology Commercialization	4
2	Research Thesis / Major Project Phase I	6
3	Research Thesis / Major Project Phase II	8
4	Thesis Seminar & Viva-Voce	2

Total Credits – 20

Credit Distribution:
Mathematics & Statistical Foundations – 12 Credits
Core Artificial Intelligence & Machine Learning – 20 Credits
Foundation Models & LLM Specialization – 24 Credits
Professional & Open Electives – 6 Credits
Projects, Internship & Research Thesis – 14 Credits
Research, Ethics & Management – 4 Credits
Total Credits = 80

BBA (Hons.) – Entrepreneurship & Start-ups (160 Credits)

Year 1: Business Foundations & Entrepreneurial Orientation (40 Credits)

I SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Business Mathematics & Statistics	4
2	Principles of Management	4
3	Financial Accounting	3
4	Microeconomics for Entrepreneurs	3
5	Business Communication & Professional Skills	3
6	Digital Literacy & Productivity Tools	2
7	Field Immersion / Industry Orientation	1

Total Credits – 20

II SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Business Economics	4
2	Organizational Behaviour	3
3	Cost & Management Accounting	3
4	Marketing Management	3
5	Introduction to Entrepreneurship & Start-ups	3
6	Design Thinking & Innovation	3
7	Internship / Start-up Exposure	1

Total Credits – 20

Year 2: Core Entrepreneurship, Innovation & Venture Development (40 Credits)

III SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Entrepreneurial Finance & Funding Strategies	4
2	New Venture Creation & Business Planning	4
3	Operations & Supply Chain Management	3
4	Legal Aspects of Business & Company Law	3
5	Technology Management & Digital Transformation	3
6	Humanities Elective (Ethics / Indian Knowledge Systems)	2
7	Internship	1

Total Credits – 20

IV SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Innovation Management & Product Development	4
2	Start-up Marketing & Growth Hacking	3
3	Business Analytics for Decision Making	3
4	Intellectual Property Rights & Patents	3
5	Open Elective I (FinTech / Agri-Business / Social Entrepreneurship)	3
6	Entrepreneurship Laboratory / Incubation Practicum	3
7	Internship	1

Total Credits – 20

Year 3: Scaling, Finance, Policy & Industry Integration (40 Credits)
V SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Venture Capital, Private Equity & Angel Investing	4
2	Scaling Start-ups & Growth Management	3
3	Corporate Strategy & Competitive Advantage	3
4	Public Policy, Start-up Ecosystems & Governance	3
5	Professional Elective I (Family Business / Social Impact Ventures)	3
6	Minor Project (Business Plan / Start-up Prototype)	4

Total Credits – 20

VI SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Strategic Leadership & Negotiation	3
2	Risk Management & Business Sustainability	3
3	Emerging Trends in Entrepreneurship	3
4	Open Elective II (Global Entrepreneurship / MSME Management)	3
5	Major Project Phase I (Start-up / Industry Based)	6
6	Seminar / Viva-Voce	2

Total Credits – 20

Year 4: Advanced Entrepreneurship, Research & Global Practice (40 Credits)

VII SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Advanced Strategic Entrepreneurship	4
2	Start-up Failure Analysis & Turnaround Strategies	3
3	Global Start-up Ecosystems & International Markets	3
4	Data-Driven Decision Making for Entrepreneurs	3
5	Professional Elective II (Tech Start-ups / Impact Investing)	3
6	Semester Internship (Incubator / VC / Start-up)	3
7	Major Project Phase II	1

 Total Credits – 20

VIII SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Corporate Governance & Ethics for Start-ups	4
2	Research Methods & Case Writing in Entrepreneurship	3
3	Policy, Regulation & Compliance for New Ventures	3
4	Open Elective III (Interdisciplinary)	3
5	Integrated Honours Project / Venture Launch	6
6	Viva-Voce / Portfolio Evaluation	1

 Total Credits – 20

Credit Distribution:
 Business Foundations & Economics – 28 Credits
 Management & Functional Areas – 36 Credits
 Entrepreneurship & Innovation Core – 52 Credits
 Professional & Open Electives – 18 Credits
 Projects & Internships – 20 Credits
 Humanities, Ethics & Skill Development – 6 Credits

Total Credits = 160

MBA – Start-up Failure Analytics & Case Research (80 Credits)

Year 1: Management Foundations & Analytical Frameworks (40 Credits)
I SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Managerial Economics	4
2	Management Principles & Organizational Behaviour	4
3	Financial Accounting & Analysis	3
4	Business Statistics & Quantitative Methods	3
5	Research Methodology for Management Studies	3
6	Business Communication & Professional Skills	2
7	Industry Orientation / Field Study	1

Total Credits – 20

II SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Marketing Management	4
2	Corporate Finance & Valuation	4
3	Operations & Supply Chain Management	3
4	Management Information Systems & Analytics	3
5	Entrepreneurship & Venture Development	3
6	Design Thinking & Innovation Management	2
7	Internship	1

Total Credits – 20

Year 2: Failure Analytics, Case Research & Industry Integration (40 Credits)
III SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Start-up Failure Analytics & Diagnostic Models	4
2	Case Research Methods & Qualitative Analysis	4
3	Risk Management & Business Sustainability	3
4	Legal, Regulatory & Governance Issues in Start-ups	3
5	Professional Elective (Turnaround Strategies / Crisis Management)	3
6	Minor Project (Start-up Failure Case Study)	2
7	Industry Internship / Consulting Practicum	1

Total Credits – 20

IV SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Strategic Management & Business Recovery	4
2	Behavioral Decision Making & Cognitive Biases	3
3	Public Policy, Start-up Ecosystems & Institutions	3
4	Open Elective (Data-Driven Strategy / Corporate Governance)	3
5	Major Project Phase I (Applied Research / Industry Based)	3
6	Major Project Phase II (Thesis / Case Portfolio)	3
7	Seminar / Viva-Voce	1

Total Credits – 20

Credit Distribution:

Management Foundations & Economics – 16 Credits
Quantitative Methods & Analytics – 14 Credits
Entrepreneurship, Failure Analytics & Case Research – 24 Credits
Professional & Open Electives – 9 Credits
Projects & Internships – 13 Credits
Communication, Ethics & Policy Studies – 4 Credits

Total Credits = 80

B.Com. – Digital Commerce & Financial Technologies (120 Credits)

Year 1: Commerce Foundations & Digital Literacy (40 Credits)
I SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Business Mathematics & Statistics	4
2	Principles of Accounting	4
3	Microeconomics for Business	3
4	Fundamentals of Commerce & Trade	3
5	Digital Literacy & Office Automation	3
6	Business Communication & Professional English	2
7	Field Orientation / Industry Exposure	1

Total Credits – 20

II SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Business Economics	4
2	Financial Accounting	4
3	Principles of Management	3
4	Introduction to E-Commerce	3
5	Business Law	3
6	Design Thinking & Innovation	2
7	Internship / Digital Business Exposure	1

Total Credits – 20

Year 2: Core Digital Commerce & Financial Technologies (40 Credits)
III SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Corporate Accounting	4
2	Digital Marketing & Analytics	4
3	Banking & Financial Systems	3
4	Financial Management	3
5	Information Systems for Business	3
6	Humanities Elective (Ethics / Indian Knowledge Systems)	2
7	Internship	1

Total Credits – 20

IV SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Financial Technologies (FinTech)	4
2	Electronic Payment Systems & Digital Banking	3
3	Cost & Management Accounting	3
4	Cyber Security & Data Protection for Commerce	3
5	Open Elective I (Business Analytics / Supply Chain Management)	3
6	Digital Commerce Laboratory	3
7	Internship	1

Total Credits – 20

Year 3: Advanced Applications, Compliance & Industry Integration (40 Credits)
V SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Blockchain Technology & Applications in Finance	4
2	International E-Commerce & Trade Regulations	3
3	Investment Analysis & Portfolio Management	3
4	Taxation & GST in Digital Business	3
5	Professional Elective I (InsurTech / RegTech / WealthTech)	3
6	Minor Project (Digital Commerce / FinTech Case Study)	4

Total Credits – 20

VI SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Corporate Governance & Compliance	3
2	Risk Management & Financial Analytics	3
3	Emerging Trends in Digital Commerce & FinTech	3
4	Open Elective II (Global Financial Markets / Digital Entrepreneurship)	3
5	Major Project (Industry / Research Based)	6
6	Seminar / Viva-Voce	2

Total Credits – 20

Credit Distribution:
   Commerce & Economics Foundations – 28 Credits
   Accounting & Finance Core – 30 Credits
   Digital Commerce & Financial Technologies – 34 Credits
   Professional & Open Electives – 12 Credits
   Projects & Internships – 12 Credits
   Humanities & Skill Development – 4 Credits
Total Credits = 120

B.Voc. – Aquaculture Operations & Farm Management (120 Credits)

Year 1: Aquaculture Foundations & Basic Farm Skills (40 Credits)
I SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Basics of Aquaculture Science	4
2	Aquatic Biology & Ecology	4
3	Fundamentals of Fisheries Science	3
4	Water Quality Management	3
5	Farm Tools, Safety & Occupational Practices	3
6	Communication Skills & Professional English	2
7	Field Orientation / Farm Exposure	1

Total Credits – 20

II SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Aquaculture Species Identification & Biology	4
2	Principles of Pond Construction & Farm Layout	3
3	Aquaculture Nutrition & Feed Management	3
4	Soil & Water Chemistry for Aquaculture	3
5	Introduction to Farm Accounting & Records	3
6	Design Thinking & Innovation in Aquaculture	2
7	Internship / Farm Attachment	1

Total Credits – 20

Year 2: Core Aquaculture Operations & Technology (40 Credits)

III SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Freshwater & Brackish Water Aquaculture	4
2	Hatchery Operations & Seed Production	4
3	Fish Health Management & Disease Control	3
4	Aquaculture Engineering & Farm Mechanization	3
5	Post-Harvest Handling & Quality Control	3
6	Humanities Elective (Rural Development / Environmental Ethics)	2
7	Internship	1

Total Credits – 20

IV SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Mariculture & Coastal Aquaculture	4
2	Integrated Farming Systems	3
3	Biosecurity & Best Management Practices	3
4	Aquaculture Extension & Advisory Services	3
5	Open Elective I (Ornamental Fish Culture / Aquaponics)	3
6	Aquaculture Operations Laboratory	3
7	Internship	1

Total Credits – 20

Year 3: Advanced Farm Management, Processing & Industry Integration (40 Credits)
V SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Farm Management & Entrepreneurship in Aquaculture	4
2	Aquaculture Economics & Marketing	3
3	Fish Processing, Value Addition & Packaging	3
4	Sustainable & Climate-Resilient Aquaculture	3
5	Professional Elective I (Shrimp Farming / Cage Culture)	3
6	Minor Project (Farm Operations / Case Study)	4

Total Credits – 20

VI SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Regulatory Framework & Aquaculture Certification	3
2	Export Management & International Trade of Aquatic Products	3
3	Emerging Technologies in Aquaculture	3
4	Open Elective II (Seaweed Culture / Biofloc Technology)	3
5	Major Project (Industry / Farm Based)	6
6	Seminar / Viva-Voce	2

Total Credits – 20

Credit Distribution:
Aquaculture & Fisheries Core Sciences – 36 Credits
Farm Operations, Engineering & Technology – 30 Credits
Farm Management, Economics & Marketing – 20 Credits
Professional & Open Electives – 12 Credits
Projects & Internships – 16 Credits
Humanities & Skill Development – 6 Credits
Total Credits = 120

B.A. – Psychology, Cognitive Science & Mental Health (120 Credits)

Year 1: Foundations of Psychology & Cognitive Sciences (40 Credits)
I SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Introduction to Psychology	4
2	Foundations of Cognitive Science	4
3	Biological Basis of Behaviour	3
4	Basics of Sociology & Human Behaviour	3
5	Academic Writing & Communication Skills	3
6	Digital Literacy for Social Sciences	2
7	Field Orientation / Observational Study	1

Total Credits – 20

II SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Developmental Psychology	4
2	Learning, Memory & Cognition	4
3	Statistics for Behavioural Sciences	3
4	Philosophy of Mind & Consciousness	3
5	Social Psychology	3
6	Design Thinking & Human-Centred Approaches	2
7	Internship / Community Exposure	1

Total Credits – 20

Year 2: Core Psychological Processes & Mental Health Studies (40 Credits)
III SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Abnormal Psychology	4
2	Cognitive Neuroscience	4
3	Psychological Assessment & Testing	3
4	Research Methods in Psychology	3
5	Emotional Intelligence & Well-being	3
6	Humanities Elective (Ethics / Indian Knowledge Systems)	2
7	Internship	1

Total Credits – 20

IV SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Clinical Psychology	4
2	Mental Health Disorders & Interventions	3
3	Cognitive Behavioural Approaches	3
4	Psychology of Stress, Trauma & Resilience	3
5	Open Elective I (Positive Psychology / Health Psychology)	3
6	Psychology Laboratory / Practicum	3
7	Internship	1

Total Credits – 20

Year 3: Applied Psychology, Research & Professional Integration (40 Credits)
V SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Counselling Psychology	4
2	Organizational Behaviour & Industrial Psychology	3
3	Mental Health Promotion & Community Psychology	3
4	Cognitive Science Applications (AI, UX, Human Factors)	3
5	Professional Elective I (Child Psychology / Geriatric Psychology)	3
6	Minor Project (Psychological Case Study / Survey Research)	4

Total Credits – 20

VI SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Psychopathology & Diagnostic Systems	3
2	Ethics, Law & Professional Practice in Psychology	3
3	Emerging Trends in Psychology & Cognitive Science	3
4	Open Elective II (Neuropsychology / Addiction Studies)	3
5	Major Project (Research / Field-Based Study)	6
6	Seminar / Viva-Voce	2

Total Credits – 20

Credit Distribution:
    Core Psychology & Cognitive Science – 48 Credits
    Mental Health & Clinical Studies – 28 Credits
    Research Methods & Statistics – 10 Credits
    Professional & Open Electives – 12 Credits
    Projects & Internships – 16 Credits
    Humanities, Ethics & Skill Development – 6 Credits
Total Credits = 120

B.A. – Fashion Designing (Digital Fashion) (120 Credits)

Year 1: Foundations of Fashion & Design Basics (40 Credits)
I SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Fundamentals of Fashion Design	4
2	Elements & Principles of Design	4
3	Textile Science – I (Natural Fibres & Fabrics)	3
4	Basics of Drawing & Fashion Illustration	3
5	History of Fashion & Costume	3
6	Communication Skills & Professional English	2
7	Design Studio – I	1

Total Credits – 20

II SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Fashion Illustration & Rendering Techniques	4
2	Textile Science – II (Man-Made & Blended Fabrics)	3
3	Garment Construction – I	3
4	Colour Theory & Trend Studies	3
5	Introduction to Digital Design Tools	3
6	Design Thinking & Creative Processes	3
7	Internship / Industry Orientation	1

Total Credits – 20

Year 2: Core Fashion Design, Technology & Digital Tools (40 Credits)
III SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Pattern Making – I	4
2	Garment Construction – II	4
3	Computer-Aided Fashion Design (CAD)	3
4	Fashion Forecasting & Consumer Behaviour	3
5	Sustainable Fashion & Ethical Practices	3
6	Humanities Elective (Cultural Studies / Aesthetics)	2
7	Internship	1

Total Credits – 20

IV SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Pattern Making – II	4
2	Digital Textile Design & Surface Ornamentation	3
3	Fashion Photography & Visual Merchandising	3
4	Apparel Production & Quality Management	3
5	Open Elective I (Accessory Design / Fashion Styling)	3
6	Digital Fashion Studio	3
7	Internship	1

Total Credits – 20

Year 3: Advanced Digital Fashion, Industry Practice & Professional Integration (40 Credits)

V SEMESTER (20 Credits)

S. No	Course Title	Credits
1	3D Fashion Design & Virtual Prototyping	4
2	Fashion Technology & Smart Wearables	3
3	Branding, Marketing & Fashion Entrepreneurship	3
4	Digital Fashion Illustration & Animation	3
5	Professional Elective I (Luxury Fashion / Sustainable Apparel Design)	3
6	Minor Project (Digital Fashion Collection)	4

Total Credits – 20

VI SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Fashion E-Commerce & Digital Retailing	3
2	Fashion Law, Intellectual Property & Ethics	3
3	Emerging Trends in Digital Fashion	3
4	Open Elective II (Costume Design / Fashion Communication)	3
5	Major Project (Industry / Portfolio Based)	6
6	Seminar / Viva-Voce	2

Total Credits – 20

Credit Distribution:

Fashion Design Foundations & Textiles – 32 Credits
Garment Construction & Pattern Making – 22 Credits
Digital Fashion, CAD & Technology – 28 Credits
Professional & Open Electives – 12 Credits
Projects & Internships – 16 Credits
Humanities, Communication & Skill Development – 10 Credits

Total Credits = 120

Integrated Programme in Interior Designing & Smart Systems (160 Credits)

Year 1: Design Foundations & Built Environment Basics (40 Credits)
I SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Fundamentals of Interior Design	4
2	Elements & Principles of Design	4
3	Freehand Drawing & Visual Communication	3
4	Building Materials & Construction – I	3
5	History of Architecture & Interiors	3
6	Communication Skills & Professional English	2
7	Design Studio – I	1

Total Credits – 20

II SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Design Drawing & Drafting Techniques	4
2	Building Materials & Construction – II	3
3	Furniture Design Fundamentals	3
4	Colour Theory & Interior Styling	3
5	Computer Fundamentals for Designers	3
6	Design Thinking & Creativity	3
7	Internship / Site Orientation	1

Total Credits – 20

Year 2: Core Interior Design & Building Systems (40 Credits)
III SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Space Planning & Ergonomics	4
2	Residential Interior Design	4
3	Building Services – I (Plumbing & Sanitation)	3
4	Lighting Design & Acoustics	3
5	Computer-Aided Design (AutoCAD)	3
6	Humanities Elective (Aesthetics / Cultural Studies)	2
7	Internship	1

Total Credits – 20

IV SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Commercial Interior Design	4
2	Building Services – II (HVAC & Fire Safety)	3
3	Furniture Design & Detailing	3
4	Interior Construction & Detailing	3
5	Open Elective I (Landscape Design / Set Design)	3
6	Interior Design Studio – II	3
7	Internship	1

Total Credits – 20

Year 3: Smart Systems, Sustainability & Advanced Design (40 Credits)
V SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Smart Building Systems & Home Automation	4
2	Sustainable & Green Interior Design	3
3	Digital Visualization & 3D Modelling	3
4	Building Information Modelling (BIM)	3
5	Professional Elective I (Retail / Hospitality Interiors)	3
6	Minor Project (Interior Design Proposal)	4

Total Credits – 20

VI SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Intelligent Lighting & Energy Management Systems	3
2	Interior Services Integration & Controls	3
3	Universal Design & Accessibility	3
4	Open Elective II (Smart Furniture / Exhibition Design)	3
5	Professional Practice & Project Management	3
6	Minor Project II (Smart Interior Prototype)	4
7	Internship	1

Total Credits – 20

Year 4: Professional Practice, Industry Integration & Major Project (40 Credits)
VII SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Advanced Interior Design Studio	4
2	Interior Systems Integration & IoT Applications	3
3	Building Codes, Regulations & Safety	3
4	Professional Elective II (Healthcare / Institutional Interiors)	3
5	Entrepreneurship & Interior Design Practice	3
6	Semester Internship (Industry / Design Firm)	3
7	Major Project Phase I	1

Total Credits – 20

VIII SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Interior Design Management & Consultancy	4
2	Major Project Phase II (Industry / Live Project Based)	10
3	Open Elective III (Interdisciplinary)	3
4	Seminar / Viva-Voce / Portfolio Review	3

Total Credits – 20

Credit Distribution:

Design Foundations & Theory – 32 Credits
Interior Design Core & Studios – 44 Credits
Building Services & Smart Systems – 30 Credits
Professional & Open Electives – 18 Credits
Projects & Internships – 26 Credits
Humanities, Communication & Management – 10 Credits

Total Credits = 160

B.A. – Yoga & Life Sciences (120 Credits)

Year 1: Foundations of Yoga, Indian Knowledge Systems & Life Sciences (40 Credits)
I SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Introduction to Yoga & Indian Knowledge Systems	4
2	Human Anatomy & Physiology – I	4
3	Foundations of Life Sciences	3
4	Yogic Texts – I (Yoga Sutras & Hatha Yoga Pradipika)	3
5	Basic Yogic Practices (Asana & Shatkarma)	3
6	Communication Skills & Professional English	2
7	Practical Orientation / Ashram Exposure	1

Total Credits – 20

II SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Human Anatomy & Physiology – II	4
2	Philosophy of Yoga & Indian Thought	4
3	Yogic Texts – II (Bhagavad Gita & Upanishads)	3
4	Nutrition, Dietetics & Yogic Lifestyle	3
5	Pranayama & Meditation Techniques	3
6	Design Thinking & Holistic Living	2
7	Internship / Community Yoga Practice	1

Total Credits – 20

Year 2: Core Yogic Sciences, Human Biology & Health Applications (40 Credits)
III SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Kinesiology & Biomechanics in Yoga	4
2	Psychology of Yoga & Mindfulness	4
3	Yoga for Health Promotion & Disease Prevention	3
4	Stress Management & Mental Well-being	3
5	Research Methods in Yoga & Life Sciences	3
6	Humanities Elective (Ethics / Indian Constitution)	2
7	Internship	1

Total Credits – 20

IV SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Therapeutic Applications of Yoga	4
2	Lifestyle Disorders & Yogic Management	3
3	Ayurveda Fundamentals & Integrative Health	3
4	Yoga, Ecology & Sustainable Living	3
5	Open Elective I (Meditation Studies / Spiritual Psychology)	3
6	Yoga Therapy Practicum	3
7	Internship	1

Total Credits – 20

Year 3: Applied Yoga, Research, Therapy & Professional Integration (40 Credits)
V SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Advanced Yoga Practices & Teaching Methodology	4
2	Yoga for Special Populations (Children, Elderly, Women)	3
3	Neuroscience of Meditation & Consciousness	3
4	Yoga, Ethics & Professional Practice	3
5	Professional Elective I (Corporate Yoga / Sports Yoga)	3
6	Minor Project (Yoga Intervention / Case Study)	4

Total Credits – 20

VI SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Yoga Therapy for Chronic & Psychosomatic Disorders	3
2	Research Writing & Documentation in Yoga Studies	3
3	Emerging Trends in Yoga & Life Sciences	3
4	Open Elective II (Integrative Medicine / Spiritual Wellness)	3
5	Major Project (Research / Field-Based Study)	6
6	Seminar / Viva-Voce	2

Total Credits – 20

Credit Distribution:
Yoga Foundations & Indian Knowledge Systems – 32 Credits
Life Sciences & Human Biology – 28 Credits
Applied Yoga, Therapy & Health Sciences – 34 Credits
Professional & Open Electives – 12 Credits
Projects & Internships – 16 Credits
Humanities, Ethics & Skill Development – 8 Credits
Total Credits = 120

Integrated B.Arch. – M.Arch. in Architecture & Engineering (240 Credits)

Year 1: Foundations of Architecture, Design & Engineering Basics (40 Credits)
I SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Architectural Design Studio – I	6
2	Freehand Drawing & Visual Communication	4
3	Building Materials – I	3
4	History of Architecture – I	3
5	Mathematics & Geometry for Architecture	2
6	Communication Skills & Professional English	1
7	Site Visit / Orientation Studio	1

Total Credits – 20

II SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Architectural Design Studio – II	6
2	Architectural Graphics & Drafting	4
3	Building Construction – I	3
4	History of Architecture – II	3
5	Environmental Science & Ecology	2
6	Design Thinking & Creativity	1
7	Internship / Field Orientation	1

Total Credits – 20

Year 2: Core Architectural Design & Building Sciences (40 Credits)
III SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Architectural Design Studio – III	6
2	Building Materials – II	3
3	Building Construction – II	3
4	Structural Mechanics for Architects	3
5	History of Architecture – III	2
6	Computer Applications in Architecture – I	2
7	Internship	1

Total Credits – 20

IV SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Architectural Design Studio – IV	6
2	Building Services – I (Water Supply & Sanitation)	3
3	Structural Design – I (RCC Basics)	3
4	Climatology & Building Physics	3
5	Computer Applications in Architecture – II	2
6	Humanities Elective (Art / Cultural Studies)	2
7	Internship	1

Total Credits – 20

Year 3: Advanced Architectural Systems & Engineering Integration (40 Credits)
V SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Architectural Design Studio – V	6
2	Structural Design – II (Steel Structures)	3
3	Building Services – II (HVAC & Fire Safety)	3
4	Urban Design Fundamentals	3
5	Building Economics & Costing	2
6	Elective I (Interior Design / Landscape Design)	2
7	Internship	1

Total Credits – 20

VI SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Architectural Design Studio – VI	6
2	Sustainable Architecture & Green Buildings	3
3	Advanced Building Construction	3
4	Acoustics & Lighting Design	3
5	Professional Practice – I	2
6	Elective II (Housing / Vernacular Architecture)	2
7	Internship	1

Total Credits – 20

Year 4: Urban Contexts, Sustainability & Professional Practice (40 Credits)
VII SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Architectural Design Studio – VII	6
2	Urban Planning & Regional Development	3
3	Transportation Planning & Infrastructure	3
4	Building Codes, Regulations & By-Laws	3
5	Professional Practice – II	2
6	Elective III (Disaster-Resilient Architecture)	2
7	Internship	1

Total Credits – 20

VIII SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Architectural Design Studio – VIII	6
2	Smart Buildings & Intelligent Systems	3
3	Advanced Structural Systems	3
4	Project Management & Construction Planning	3
5	Research Methods in Architecture	2
6	Elective IV (Heritage Conservation)	2
7	Internship	1

Total Credits – 20

Year 5: PG-Level Advanced Architecture, Technology & Research (40 Credits)
IX SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Advanced Architectural Design Studio – I	6
2	Advanced Urban Design & City Planning	4
3	Computational Design & Parametric Modelling	3
4	Building Information Modelling (BIM)	3
5	Elective V (Sustainable Urban Systems)	3
6	Seminar	1

Total Credits – 20

X SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Advanced Architectural Design Studio – II	6
2	Energy Efficient Buildings & Climate Responsive Design	4
3	Research Seminar & Publication Ethics	3
4	Elective VI (Advanced Construction Technologies)	3
5	Minor Research Project	3
6	Internship	1

Total Credits – 20

Year 6: Research, Specialization & Thesis (40 Credits)
XI SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Thesis Preparation & Research Design	6
2	Specialized Elective I (Urban Analytics / Smart Cities)	4
3	Specialized Elective II (Advanced Structural Optimization)	4
4	Professional Practice – III	3
5	Industry / Research Internship	3

Total Credits – 20

XII SEMESTER (20 Credits)

S. No	Course Title	Credits
1	Thesis (Architecture & Engineering Integration)	14
2	Seminar & Viva-Voce	4
3	Portfolio & Professional Evaluation	2

Total Credits – 20

Credit Distribution:
    Architectural Design Studios – 72 Credits
    Building Materials, Construction & Structures – 48 Credits
    Building Services, Sustainability & Smart Systems – 36 Credits
    Urban Planning, Professional Practice & Management – 36 Credits
    Electives & Specializations – 28 Credits
    Projects, Internship & Thesis – 20 Credits
Total Credits = 240