



Program Structure

**Bachelor of Technology (Artificial
Intelligence)**

Duration: 04 Years

Batch: 2026-30

School of Artificial Intelligence

RPS
Vijay
28/5/26

**Proposed Outline of Course Curriculum and Credit Framework for UG Programmes
in-line with NEP 2020 & NCrF/NHEQF/FYUP etc with Multiple Entry and Multiple
Exit (MEME) options**

Semester-I

S.No	Type of Course	Subject	Course Code	L	T	P	E	Credits
1	Core	Linear Algebra & Calculus	2026MATH100	3	0	0	0	3
2	Core	Evolution of AI & ML	2026AINT100	2	0	2	0	3
3	Core	Programming Concepts in C	2026PROG100	2	0	2	0	3
4	Core	Logic Design	2026COMP100	2	0	2	0	3
5	DSE	Entropy & Information / Digital Signal Processing	2026AINT101/ 2026AINT102	3	0	2	0	4
6	MDC	Biology for Engineers	2026BIOT100	3	0	0	0	3
7	SEC	Exploration & Seminars in AI	2026AINT103	1	0	2	0	2
8	VAC	Source Code Management using GitHub	2026AINT104	1	0	2	0	2
Total				17	0	12	0	23

Semester-II

S.No	Type of Course	Subject	Course Code	L	T	P	E	Credits
1	Core	Probability, Random variables & Stochastic Processes	2026MATH151	2	0	2	0	3
2	Core	Advanced AI Mathematics	2026AINT151	3	0	0	0	3
3	Core	Python for AI/ML	2026PROG151	2	0	2	0	3
4	Core	Object Oriented Programming	2026PROG152	2	0	2	0	3
5	DSE	Data Science / Data Analytics & Visualization	2026AINT152/ 2026AINT153	2	0	2	0	3
6	MDC	Physics	2026PHYS151	3	0	0	0	3
7	AEC	Environment & Sustainability-I	2026BIOT151	2	0	0	0	2
8	VAC	Advanced Prompt Engineering	2026AINT154	1	0	2	0	2
Total				17	0	10	0	22

Students exiting the programme after securing 40 credits will be awarded UG Certificate in the relevant Discipline /Subject provided they secure 4 credits in work based /vocational courses (internship also) offered during summer term or internship / Apprenticeship. These students are allowed to re-enter the degree programme within THREE years and complete the degree programme within the stipulated maximum period of SEVEN years.



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Semester-III								
S.No	Type of Course	Subject	Course Code	L	T	P	E	Credits
1	Core	Machine Learning	2026AINT200	3	0	2	0	4
2	Core	Data Structures	2026COMP200	3	0	2	0	4
3	Core	Numerical Methods & Optimisation Techniques	2026AINT201	3	0	2	0	4
4	DSE	Theory of Computation / Microprocessor & Computer Architecture	2026COMP201/ 2026COMP202	2	0	2	0	3
5	MDC	Discrete Mathematics & Set Theory	2026MATH200	3	0	0	0	3
6	SEC	MLOps	2026AINT202	1	0	2	0	2
7	VAC	Entrepreneurship & IP	2026ENIP200	2	0	0	0	2
8	Audit	Communication skills (1)	2026COMM200	1	0	0	0	0
Total				18	0	10	0	22

Semester-IV								
S.No	Type of Course	Subject	Course Code	L	T	P	E	Credits
1	Core	Deep Learning	2026AINT251	3	0	2	0	4
2	Core	Data Management & AI Integration	2026AINT252	2	0	2	0	3
3	Core	Image Processing	2026AINT253	2	0	2	0	3
4	Core	Design & Analysis of Algorithms	2026COMP251	3	0	2	0	4
5	Core	Operating and Embedded Systems	2026AINT254	3	0	2	0	4
6	DSE	Physics Inspired ML / Compiler Design / Scientific Computing / Computational Geometry & Topology / Quantum Computing	2026AINT255/ 2026COMP252/ 2026COMP253/ 2026AINT256/ 2026AINT257	2	0	2	0	3
7	AEC	Environment & Sustainability-II	2026BIOT269	1	0	0	0	1
Total				16	0	12	0	22

Students exiting the programme after securing 80 credits will be awarded UG Diploma in the relevant Discipline /Subject provided they secure additional 4 credit in skill based/vocational courses (internship also) offered during first year or second year summer term. These students are allowed to re-enter the degree programme within THREE years and complete the degree programme within the stipulated maximum period of SEVEN years.

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Semester-V								
S.No	Type of Course	Subject	Course Code	L	T	P	E	Credits
1	Core	Internet of Things	2026AINT300	2	0	2	0	3
2	Core	Generative AI	2026AINT301	2	0	2	0	3
3	Core	Computer Networks	2026CSET300	2	0	2	0	3
4	Core	Computer Vision	2026AINT302	2	0	2	0	3
5	DSE	Specialization Elective I	2026CBOT300/ 2026INCS300/ 2026PSAI300/ 2026HEAI300	3	0	2	0	4
6	Internship	Internship Evaluation	2026AINT303	0	0	0	3	1
7	SEC	Competitive Coding-1	2026COMP300	0	0	2	0	1
8	VAC	Indian Knowledge System	2026PSIR300	2	0	0	0	2
Total				13	0	12	3	20

Semester-VI								
S.No	Type of Course	Subject	Course Code	L	T	P	E	Credits
1	Core	Cloud Computing	2026CSET351	2	0	2	0	3
2	Core	Natural Language Processing	2026AINT352	2	0	2	0	3
3	Core	Agentic AI	2026AINT353	2	0	2	0	3
4	Core	Cyber Security	2026CSET354	2	0	2	0	3
5	DSE	Specialization Elective II	2026CBOT351/ 2026INCS351/ 2026PSAI351/ 2026HEAI351	2	0	2	0	3
6	DSE	Specialization Elective III	2026CBOT352/ 2026INCS352/ 2026PSAI352/ 2026HEAI352	2	0	2	0	3
7	SEC	Competitive Coding-I	2026COMP351	0	0	4	0	2
Total				12	0	16	0	20

Students who want to undertake 3-year UG programme will be awarded UG Degree in the relevant Discipline /Subject upon securing 120 credits.

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Semester-VII								
S.No	Type of Course	Subject	Course Code	L	T	P	E	Credits
1	Core	Large Language Models	2026AINT400	3	0	2	0	4
2	DSE	Specialization Elective IV	2026CBOT400/ 2026INCS400/ 2026PSAI400/ 2026HEAI400	2	0	2	0	3
3	DSE	Specialization Elective V	2026CBOT401/ 2026INCS401/ 2026PSAI401/ 2026HEAI401	2	0	2	0	3
4	SEC	AI Design & Innovation	2026AINT401	0	0	4	0	2
5	AEC	Scientific Writing Skill	2026AINT402	2	0	0	0	2
6	VAC	AI GRC (Governance, Risk, and Compliance)	2026AINT403	2	0	0	0	2
7	Internship	Internship Evaluation	2026AINT404	0	0	0	6	2
Total				11	0	10	6	18

Semester-VIII								
S.No	Type of Course	Subject	Course Code	L	T	P	E	Credits
1	DSE	Specialization Elective VI	2026CBOT451/ 2026INCS451/ 2026PSAI451/ 2026HEAI451	2	0	2	0	3
2	AEC	Scientific Presentation & Communication Skill	2026AINT451	2	0	0	0	2
3	Dissertation	Major Project	2026AINT452	0	0	0	36	12
Total				4	0	2	36	17

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