

Informatics Delivered In English Curriculum

1 st Year	
1 st Semester	Credit
Statistics	2
Religion Education	2
Pancasila	2
Introduction to Programming	3
Math Logic	3
Calculus	3
Character Building	3
Total Credit	18
2 nd Semester	Credit
Programming Algorithms	4
Discrete Mathematics	3
English	2
Advanced Calculus	3
Indonesian	2
Digital System	3
Database Modeling	3
Total Credit	20

2 nd Year	
3 rd Semester	Credit
Computer Organization and Architecture	3
Data Structure	4
Algorithm Complexity Analysis	2
Matrix and Vector Space	3
ICT Global Insight	2
Database System	3
Probability Theory	3
Total Credit	20
4 th Semester	Credit
Operating System	3
Computer Network	4

Algorithm Strategy	3
Theory of Language and Automata	3
Introduction to Artificial Intelligence	3
Software Engineering: Software Engineering Analysis and Design	3
Total Credit	19

3rd Year	
5th Semester	Credit
Parallel and Distributed Systems	4
Human Computer Interaction	3
Machine Learning	3
Software Engineering: Software Engineering Implementation and Testing	3
Object-oriented Programming	4
Cyber Security	3
Total Credit	20
6th Semester	Credit
ICT Project Management	3
Platform-based Applications	4
Socio-informatics and Professionalism	2
Specialization Courses 1	3
English for Presentations	3
Informatics for Society	1
Scientific Writing	3
Total Credit	19

4th Year	
7th Semester	Credit
Proposal Writing	2
Practical Work	3
Entrepreneurship	2
English for Career	3
Specialization Courses 2	3
Elective Courses 1	3
Elective Courses 2	3
Total Credit	19

8 th Semester	Credit
Final Project	4
Elective Courses 3	3
Civics	2
Total Credit	9
Specialization and Elective Courses	
Advanced AI Specialization	Credit
Specialization Courses 1: Advanced Machine Learning/Knowledge Representation/Multiagent System	3
Specialization Courses 2: Digital Image Processing/Natural Language Processing/Recommender System/Data Mining	3
Internet of Things (IoT) Specialization	Credit
Specialization Courses 1: IoT with Data Capabilities	2
Specialization Courses 2: Computer Network Performance Analysis/Intelligent Security System	3
Modelling and Simulation Specialization	Credit
Specialization Courses 1: Modelling and Simulation	3
Specialization Courses 2: Data Visualization/Numerical Methods for Informatics	3
Elective Courses	Credit
Process Mining	3
Interaction Design	3
Social Network Analysis	3
High Performance Computing	3
Computer Visioner	3
Digital Forensics	3
Software Verification and Validation	3