Curriculum Data, Software, and Systems
Study plan for students enrolled in a.y. 2026-27

1st year	
Learning activity	**CFU**
Group: Compulsory courses	
CONCURRENT AND DISTRIBUTED SYSTEMS (C.I.)	
Integrated module: CONCURRENT SYSTEMS	6
Integrated module: DISTRIBUTED SYSTEMS	6
CYBERSECURITY	6
ENGLISH PROFICIENCY B - 2	6
INFORMATION SYSTEMS	6
MACHINE LEARNING	6
SOFTWARE ENGINEERING AND COMPUTATIONAL MODELS (C.I.)	
Integrated module: FORMAL LANGUAGES AND COMPUTATIONAL MODELS	6
Integrated module: ADVANCED SOFTWARE ENGINEERING AND DEVELOPMENT	6
WEB SERVICES AND APPLICATIONS	6

2nd year	
Learning activity	**CFU**
Group: Compulsory courses	
INFORMATION SECURITY	6
Group: Elective Courses of the guided choice (24 CFU)	
ADVANCED SOFTWARE MODELLING AND DESIGN	6
BIG DATA	6
BUSINESS INTELLIGENCE	6
COMPUTER VISION	6
DATA-CENTRIC AI	6
HIGH PERFORMANCE COMPUTING AND COMPLEX INFRASTRUCTURES	6
INTELLIGENT AGENTS	6
INTELLIGENT ROBOTIC SYSTEMS	6
OPERATIONAL ANALYTICS	6
PROJECT MANAGEMENT	6
SEMANTIC WEB	6
SOFTWARE ARCHITECTURES AND PLATFORMS	6

SOFTWARE PROCESS ENGINEERING	6

Group: Elective Courses

DEEP LEARNING	6
HUMAN COMPUTER INTERACTION	6
HUMAN-CENTERED AI	6
LABORATORY OF NETWORK SECURITY AND PROGRAMMABILITY	6
MANAGEMENT OF TELECOMMUNICATION NETWORKS	6
NATURAL LANGUAGE PROCESSING	6
SMART VEHICULAR-SYSTEMS	6

Group: Final examination

Group A

FINAL EXAMINATION	24

Group B

FINAL EXAMINATION	6

The student must integrate the 6 CFU final examination with one of the following activities

FINAL EXAMINATION PREPARATION ABROAD	18
INTERNSHIP ABROAD FOR THE FINAL EXAMINATION PREPARATION	18
INTERNSHIP FOR THE FINAL EXAMINATION PREPARATION	18

Curriculum Intelligent Embedded Systems
Study plan for students enrolled in a.y. 2026-27

1st year	
Learning activity	**CFU**
Group: Compulsory courses	
DISTRIBUTED SYSTEMS	6
CONCURRENT SYSTEMS	6
CYBERSECURITY	6
EMBEDDED SENSORS	6
EMBEDDED SYSTEMS AND INTERNET OF THINGS	6
FUNDAMENTALS OF MANAGEMENT AND ORGANIZATION (I.C)	
Integrated module: FUNDAMENTALS OF MANAGEMENT	6
Integrated module: ORGANIZATION, TEAMS AND DIGITAL LEADERSHIP	6
LABORATORY OF NETWORK SECURITY AND PROGRAMMABILITY	6
Group: Elective Courses	
ENTREPRENEURSHIP	6
FUNDAMENTALS OF ACCOUNTING	6
HUMAN COMPUTER INTERACTION	6
INNOVATION STRATEGY	6
MACHINE LEARNING AND DATA MINING	6
SOFTWARE ARCHITECTURES AND PLATFORMS	6
Other activities offered by the University of Bologna (010)	
Group: Elective Courses of the guided choice	
APPLICATIONS OF DIGITAL INNOVATION	6
INDUSTRY 4.0	6

2nd year	
Learning activity	**CFU**
Group: Elective Courses	
ENTREPRENEURSHIP	6
FUNDAMENTALS OF ACCOUNTING	6
HUMAN COMPUTER INTERACTION	6
INNOVATION STRATEGY	6
MACHINE LEARNING AND DATA MINING	6

MARKETING, SALES AND PLATFORMS FOR THE DIGITAL AGE	6
SOFTWARE ARCHITECTURES AND PLATFORMS	6

Other activities offered by the University of Bologna (010)

Group: Elective Courses of the guided choice

ADVANCED SOFTWARE MODELLING AND DESIGN	6
BIG DATA	6
HUMAN COMPUTER INTERACTION	6
INTELLIGENT ROBOTIC SYSTEMS	6
MACHINE LEARNING AND DATA MINING	6
OPERATIONAL ANALYTICS	6
SMART VEHICULAR-SYSTEMS	6
SOFTWARE ARCHITECTURES AND PLATFORMS	6
SOFTWARE PROCESS ENGINEERING	6

Group: Final examination

Group A

FINAL EXAMINATION (30 CFU)	30

Group B

FINAL EXAMINATION (6 CFU)	6

The student must integrate the 6 CFU final examination with one of the following activities

FINAL EXAMINATION PREPARATION ABROAD	24
INTERNSHIP ABROAD FOR THE FINAL EXAMINATION PREPARATION	24
INTERNSHIP FOR THE FINAL EXAMINATION PREPARATION	24

Curriculum Artificial Intelligence
Study plan for students enrolled in a.y. 2026-27

1st year	
Learning activity	**CFU**
Group: Compulsory courses	
CYBERSECURITY	6
DATA-CENTRIC AI	6
INTELLIGENT AGENTS	6
MACHINE LEARNING AND DEEP LEARNING (I.C:)	
Integrated module: MACHINE LEARNING	6
Integrated module: DEEP LEARNING	6
MATHEMATICS FOR ARTIFICIAL INTELLIGENCE	6
OPERATIONAL ANALYTICS	6
SOFTWARE ENGINEERING AND COMPUTATIONAL MODELS (C.I.)	
Integrated module: FORMAL LANGUAGES AND COMPUTATIONAL MODELS	6
Integrated module: ADVANCED SOFTWARE ENGINEERING AND DEVELOPMENT	6

2nd year	
Learning activity	**CFU**
Group: Compulsory courses	
HUMAN-CENTERED AI	6
NATURAL LANGUAGE PROCESSING	6
Group: Elective Courses of the guided choice (18 CFU)	
BIG DATA	6
COMPUTER VISION	6
INFORMATION SECURITY	6
INTELLIGENT ROBOTIC SYSTEMS	6
SEMANTIC WEB	6
SMART VEHICULAR-SYSTEMS	6
Group: Elective Courses	
ADVANCED SOFTWARE MODELLING AND DESIGN	6
BUSINESS INTELLIGENCE	6
HUMAN COMPUTER INTERACTION	6
LABORATORY OF NETWORK SECURITY AND PROGRAMMABILITY	6

PROJECT MANAGEMENT	6
SOFTWARE ARCHITECTURES AND PLATFORMS	6
SOFTWARE PROCESS ENGINEERING	6

Group: Final examination

Group A

FINAL EXAMINATION	24

Group B

FINAL EXAMINATION	6

The student must integrate the 6 CFU final examination with one of the following activities

FINAL EXAMINATION PREPARATION ABROAD	18
INTERNSHIP ABROAD FOR THE FINAL EXAMINATION PREPARATION	18
INTERNSHIP FOR THE FINAL EXAMINATION PREPARATION	18