

DEPARTMENT OF INFORMATICS
PROGRAMME OF STUDIES
ACADEMIC YEAR 2020-2021

1st SEMESTER				
COURSE	TEACHING HOURS	COURSE TYPE	DIRECTION	ECTS
ANALYSIS I	4 Theory + 2 Tutorial	MANDATORY	~	5
INTRODUCTION TO PROGRAMMING	4 Theory	MANDATORY	~	5
INTRODUCTION TO COMPUTER SCIENCE	4 Theory + 2 Laboratory	MANDATORY	~	5
LOGIC DESIGN OF DIGITAL SYSTEMS	4 Theory + 2 Laboratory	MANDATORY	~	5
MATHEMATICS FOR COMPUTER SCIENCE	4 Theory + 2 Tutorial	MANDATORY	~	5
INTERNET TECHNOLOGIES	4 Theory + 2 Laboratory	MANDATORY	~	5

2nd SEMESTER

COURSE	TEACHING HOURS	COURSE TYPE	DIRECTION	ECTS
ANALYSIS II	4 Theory + 2 Tutorial	MANDATORY	~	5
OBJECT ORIENTED PROGRAMMING	4 Theory + 2 Laboratory	MANDATORY	~	5
COMPUTER ARCHITECTURE	4 Theory + 2 Laboratory	MANDATORY	~	5
DISCRETE MATHEMATICS	4 Theory + 2 Tutorial	MANDATORY	~	5
DATA STRUCTURES	4 Theory	MANDATORY	~	5
APPLIED ALGEBRA	4 Theory + 2 Tutorial	MANDATORY	~	5

3rd SEMESTER

COURSE	TEACHING HOURS	COURSE TYPE	DIRECTION	ECTS
OBJECT ORIENTED APPLICATION DEVELOPMENT	4 Theory + 2 Laboratory	MANDATORY	~	5
OPERATING SYSTEMS	4 Theory + 2 Laboratory	MANDATORY	~	5
MATHEMATICAL PROGRAMMING	4 Theory + 2 Tutorial	MANDATORY	~	5
COMPILERS	4 Theory + 2 Laboratory	MANDATORY	~	5
PROBABILITY AND STATISTICS	4 Theory	MANDATORY	~	5
INFORMATICS LAW	4 Theory	SELECTION	~	5
APPLICATIONS OF GRAPH THEORY	4 Theory	SELECTION	~	5
MANAGEMENT	4 Theory	SELECTION	~	5
PEGADOGICS	4 Theory	SELECTION	~	5
ENGLISH III	4 Theory	FOREIGN LANGUAGE	~	3
FRENCH III	4 Theory	FOREIGN LANGOUAGE	~	3

4th SEMESTER

COURSE	TEACHING HOURS	COURSE TYPE	DIRECTION	ECTS
ALGORITHMS	4 Theory	MANDATORY	~	5
PRINCIPLES AND APPLICATIONS OF SIGNALS AND SYSTEMS	4 Theory + 1 Laboratory	MANDATORY	~	5
DATABASES	4 Theory + 2 Laboratory	MANDATORY	~	5
COMPUTER NETWORKS	4 Theory + 2 Laboratory	MANDATORY	~	5
INTERNET AND WEB PROGRAMMING	4 Theory + 2 Laboratory	MANDATORY	~	5
DYNAMICAL SYSTEMS	4 Theory	SELECTION	~	5
BUSINESS STRATEGY	4 Theory	SELECTION	~	5
APPLIED COMBINATORICS	4 Theory	SELECTION	~	5
INFORMATION AND CODING THEORY	4 Theory	SELECTION	~	5
FOREIGN LANGUAGE TERMINOLOGY OF ICT	4 Theory	SELECTION	~	5
COMPUTERS IN EDUCATION	4 Theory	SELECTION	~	5

COMPUTATIONAL NUMBER THEORY	4 Theory	SELECTION	~	5
ENGLISH IV	4 Theory	FOREIGN LANGUAGE	~	3
FRENCH IV	4 Theory	FOREIGN LANGUAGE	~	3

5th SEMESTER

COURSE	TEACHING HOURS	COURSE TYPE	DIRECTION	ECTS
HUMAN COMPUTER INTERACTION	4 Theory + 2 Laboratory	MANDATORY	Core	5
PATTERN RECOGNITION	4 Theory + 2 Laboratory	MANDATORY	Core	5
SCIENTIFIC WRITING IN EDUCATION	4 Theory	MANDATORY	Core	5
INFORMATION SYSTEMS	4 Theory	MANDATORY	Core	5
ADVANCED TOPICS IN COMMUNICATIONS	4 Theory + 2 Laboratory	MANDATORY	Online and Computer Systems	5
ADVANCED COMPUTER ARCHITECTURE	4 Theory	MANDATORY	Online and Computer Systems	5
CRYPTOGRAPHY	4 Theory	MANDATORY	Information Systems and Services	5
DATABASE MANAGEMENT SYSTEMS	4 Theory + 2 Laboratory	MANDATORY	Information Systems and Services, Software Engineering and Intelligent Systems	5
PROGRAMMING IN LOGIC	2 Theory + 2 Laboratory	MANDATORY	Software Engineering and Intelligent Systems	5
SPECIAL TOPICS ON OPERATIONAL RESEARCH	4 Theory	SELECTION	~	5

QUEUING THEORY	4 Theory	SELECTION	~	5
GAME THEORY AND APPLICATIONS	4 Theory	SELECTION	~	5
THEORY OF COMPUTATION	4 Theory	SELECTION	~	5
LEARNING MANAGEMENT SOFTWARE	4 Theory	SELECTION	~	5
ENGLISH V	4 Theory	FOREIGN LANGUAGE	~	3
FRENCH V	4 Theory	FOREIGN LANGUAGE	~	3

6th SEMESTER

COURSE	TEACHING HOURS	COURSE TYPE	DIRECTION	ECTS
ARTIFICIAL INTELLIGENCE AND EXPERT SYSTEMS	4 Theory	MANDATORY	Core	5
SOFTWARE ENGINEERING	4 Theory + 2 Laboratory	MANDATORY	Core	5
HIGH SPEED NETWORKS	4 Theory + 2 Laboratory	MANDATORY	Online and Computer Systems	5
TELECOMMUNICATIONS, SERVICES AND SYSTEMS PROGRAMMING	4 Theory + 2 Laboratory	MANDATORY	Online and Computer Systems	5
COMPUTER SYSTEMS DESIGN	4 Theory	MANDATORY	Online and Computer Systems	5
DATA ANALYTICS	3 Theory + 2 Laboratory	MANDATORY	Information Systems and Services	5
DECISION SUPPORT SYSTEMS	4 Theory	MANDATORY	Information Systems and Services	5
SYSTEMIC ANALYSIS	4 Theory + 1 Laboratory	MANDATORY	Information Systems and Services	5
BIOINFORMATICS	4 Theory	MANDATORY	Software Engineering and Intelligent Systems	5
NATURAL LANGUAGE PROCESSING	4 Theory	MANDATORY	Software Engineering and Intelligent Systems	5

MULTIMEDIA SYSTEMS	4 Theory	MANDATORY	Software Engineering and Intelligent Systems	5
DIDACTICS OF INFORMATICS	4 Theory	SELECTION	~	5
SECURITY GOVERNANCE	4 Theory	SELECTION	~	5
INTELLIGENT SOCIAL NETWORKS INTERACTION	4 Theory	SELECTION	~	5
PARALLEL COMPUTING	4 Theory	SELECTION	~	5
SOFTWARE DESIGN PATTERNS	4 Theory + 2 Laboratory	SELECTION	~	5
GROUP SUPPORT SYSTEMS	2 Theory + 2 Laboratory	SELECTION	~	5
ENGLISH VI	4 Theory	FOREINGN LANGUAGE	~	3
FRENCH VI	4 Theory	FOREING LANGUAGE	~	3

7th SEMESTER

COURSE	TEACHING HOURS	COURSE TYPE	DIRECTION	ECTS
DISSERTATION A	4 Theory	MANDATORY	Core	5
DISTRIBUTED AND MULTIPROCESSING COMPUTER SYSTEMS	4 Theory	MANDATORY	Online and Computer Systems	5
MOBILE AND WIRELESS COMMUNICATIONS	4 Theory + 2 Laboratory	MANDATORY	Online and Computer Systems	5
INFORMATION SYSTEMS SECURITY	4 Theory + 2 Laboratory	MANDATORY	Online and Computer Systems, Information Systems and Services	5
INFORMATION RETRIEVAL AND SEARCHING ON THE WORLD WIDE WEB	4 Theory	MANDATORY	Information Systems and Services	5
SYSTEMS' SIMULATION	4 Theory + 1 Laboratory	MANDATORY	Information Systems and Services	5
IMAGE ANALYSIS	4 Theory + 2 Laboratory	MANDATORY	Software Engineering and Intelligent Systems	5
VIRTUAL REALITY	4 Theory + 2 Laboratory	MANDATORY	Software Engineering and Intelligent Systems	5
CURRENT TOPICS OF SOFTWARE ENGINEERING - SOFTWARE FOR MOBILE DEVICES	4 Theory + 2 Laboratory	MANDATORY	Software Engineering and Intelligent Systems	5
TUTORING PROGRAMS EVALUATION	4 Theory	SELECTION	~	5

GEOGRAPHICAL INFORMATION SYSTEMS	2 Theory + 2 Laboratory	SELECTION	~	5
KNOWLEDGE MANAGEMENT	4 Theory	SELECTION	~	5
SMART CITIES AND INTERNET OF THINGS	4 Theory	SELECTION	~	5
E-LEARNING AND SOCIAL NETWORKS	4 Theory	SELECTION	~	5
NEXT GENERATION VEHICULAR NETWORKS	4 Theory	SELECTION	~	5
MARITIME ICT SYSTEMS	4 Theory	SELECTION	~	5
PRACTICAL TRAINING	4 Theory	SELECTION	~	5
COMPUTER GAME DEVELOPMENT TECHNOLOGIES	4 Theory	SELECTION	~	5
SERVICE ORIENTED PROGRAMMING	4 Theory + 2 Laboratory	SELECTION	~	5
COMPUTATIONAL GEOMETRY	4 Theory	SELECTION	~	5

8th SEMESTER

COURSE	TEACHING HOURS	COURSE TYPE	DIRECTION	ECTS
DISSERTATION B	4 Theory	MANDATORY	Core	5
NETWORK SECURITY	3 Theory + 1 Laboratory	MANDATORY	Online and Computer Systems	5
E-BUSINESS AND INNOVATION	2 Theory + 2 Laboratory	MANDATORY	Online and Computer Systems, Information Systems and Services	5
INTERNET-BASED INFORMATION SYSTEMS	4 Theory + 2 Laboratory	MANDATORY	Online and Computer Systems, Information Systems and Services	5
IT PROJECT MANAGEMENT	4 Theory	MANDATORY	Information Systems and Services	5
EDUCATIONAL SOFTWARE	4 Theory + 2 Laboratory	MANDATORY	Software Engineering and Intelligent Systems	5
SPEECH AND AUDIO PROCESSING	2 Theory + 2 Laboratory	MANDATORY	Software Engineering and Intelligent Systems	5
INTELLIGENT AGENTS	4 Theory + 2 Laboratory	MANDATORY	Software Engineering and Intelligent Systems	5
PRACTICAL TRAINING	4 Theory	SELECTION	~	5

ADVANCED TOPICS IN NETWORK AND MOBILE COMMUNICATION MANAGEMENT	4 Theory	SELECTION	~	5
TOTAL QUALITY MANAGEMENT	4 Theory	SELECTION	~	5
ERP/CRM	4 Theory	SELECTION	~	5
BLOCKCHAIN TECHNOLOGIES AND APPLICATIONS	4 Theory	SELECTION	~	5