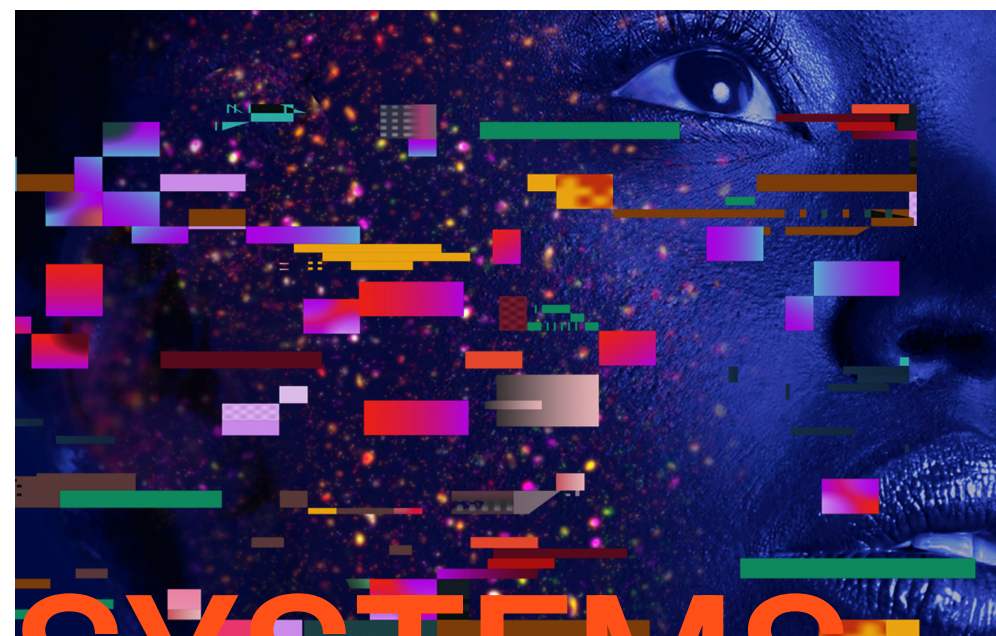




SPECIALIST CERTIFICATIONS

- Software Engineering
- Information Technology
- Information Systems
- Video Game Development

SCHOOL OF ENGINEERING



SYSTEMS ENGINEER RING

The Systems Engineering Undergraduate Program prepares highly skilled professionals to meet the challenges of organizations in a global context. Graduates are equipped to propose, implement, validate, and manage innovative information technology solutions through a comprehensive approach, helping companies achieve their strategic goals.

LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	LEVEL 6	LEVEL 7	LEVEL 8	LEVEL 9	LEVEL 10
LANGUAGE AND COMMUNICATION I 4	LANGUAGE AND COMMUNICATION II 3	APPLIED ARTIFICIAL INTELLIGENCE * 3	STATISTICS AND PROBABILITY * 4	APPLIED STATISTICS 4	BUSINESS PROCESS ENGINEERING 3	BUSINESS INTELLIGENCE SYSTEMS 4	RESEARCH PROPOSAL 3	RESEARCH SEMINAR I 4	RESEARCH SEMINAR II 4
PSYCHOLOGICAL PROCESSES 3	APPLIED PHILOSOPHY 3	CALCULUS II * 5	CALCULUS III * 3	OPERATIONS RESEARCH I * 4	COMPUTER NETWORKS 4	OPERATIONS MANAGEMENT 3	ERP SYSTEMS 3	STRATEGIC PLANNING 3	DIGITAL SERVICE MANAGEMENT 4
CIVIC ETHICS 2	FUNDAMENTALS OF ECONOMICS 3	ORGANIZATIONAL SYSTEMS * 2	SYSTEMS MODELING AND INTEGRATION 3	OPERATING SYSTEMS 4	SIMULATION 3	SOFTWARE ENGINEERING I 4	SYSTEMS CONTROL AND AUDIT 3	PROJECT MANAGEMENT * 3	SYSTEMS CAPSTONE PROJECT 4
INTRODUCTION TO ENGINEERING 3	INTRODUCTION TO INTERNATIONAL TRADE 3	PHYSICS FOR SYSTEMS ENGINEERING 4	OPERATIONS COSTING * 3	DEVELOPMENT OF MANAGERIAL SKILLS 3	DATA STRUCTURES II 4	MACHINE LEARNING 4	SOFTWARE ENGINEERING II 4	SYSTEMS SECURITY 4	ELECTIVE 3
RESEARCH METHODOLOGIES 3	LINEAR ALGEBRA 3	DISCRETE STRUCTURES IN COMPUTING 4	OBJECT-ORIENTED PROGRAMMING 4	DATA STRUCTURES I 4	WEB PROGRAMMING 3	CYBERSECURITY 4	ELECTIVE 3	ELECTIVE 3	ELECTIVE 3
PRECALCULUS 5	CALCULUS I 5	INTRODUCTION TO PROGRAMMING 4	COMPUTER ARCHITECTURE 4	DATABASE MODELING 4	FINANCIAL MANAGEMENT 3	ELECTIVE 3	ELECTIVE 3	MANDATORY CREDITS 14	MANDATORY CREDITS 12
MANDATORY CREDITS 20	MANDATORY CREDITS 20	MANDATORY CREDITS 22	MANDATORY CREDITS 21	MANDATORY CREDITS 23	ELECTIVE 3	MANDATORY CREDITS 19	MANDATORY CREDITS 13		
					MANDATORY CREDITS 20				

Elective Subjects:

PROGRAMMING PARADIGMS 3	ALGORITHM DESIGN AND ANALYSIS 3	DEEP LEARNING 3	DISTRIBUTED SYSTEMS 3	SOFTWARE DEVELOPMENT PROJECT 3	VIDEO GAMES PROJECT 3	INFORMATION TECHNOLOGY ARCHITECTURE 3	OCCUPATIONAL SAFETY, HEALTH, AND ORGANIZATIONAL WELL-BEING * 3
INTERNET OF THINGS 3	ADVANCED NETWORKS 3	MOBILE PROGRAMMING 3	BIG DATA ANALYTICS 3	CLOUD COMPUTING 3	BUSINESS ARCHITECTURE 3	DEVOPS 3	
DATABASE MANAGEMENT 3	KNOWLEDGE ENGINEERING 3	ADVANCED CYBERSECURITY TOPICS 3	BUSINESS ANALYTICS 3	DIGITAL INNOVATION 3	HUMAN-COMPUTER INTERACTION 3	SOFTWARE ARCHITECTURE 3	

To choose these subjects, it is necessary to meet the requirements set out in this curriculum.

Mandatory subjects of the General Studies Program

Mandatory subjects of the Systems Engineering Undergraduate Program

Elective subjects of the Systems Engineering Undergraduate Program

Subjects in common among the undergraduate programs of the School **

** The School of Engineering comprises the Civil Engineering, Industrial Engineering, Systems Engineering, Mechatronics Engineering, and Environmental Engineering undergraduate programs.

CREDIT SUMMARY	CREDITS	TYPE OF CREDIT
General Studies	40	Mandatory
School	144	Mandatory
Total Elective Subjects	21	Elective
Total Credits	205	

Subject to curricular change.