Systems Engineering

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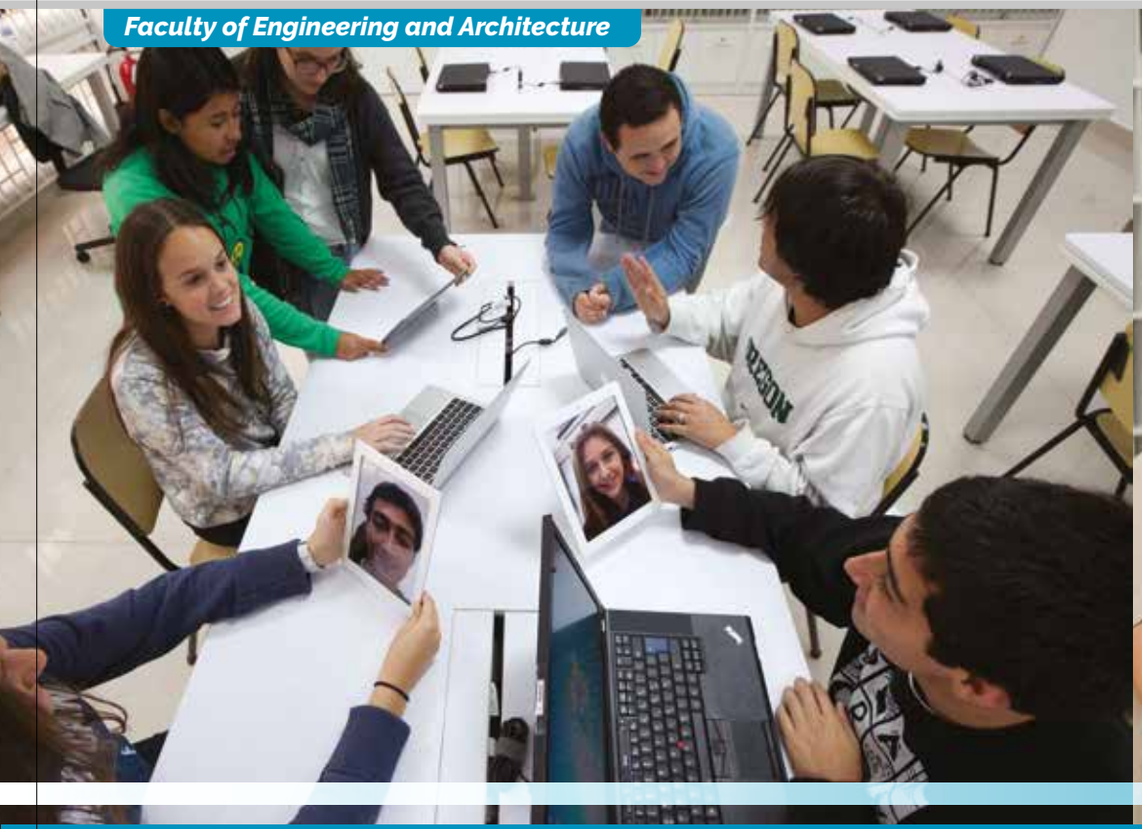

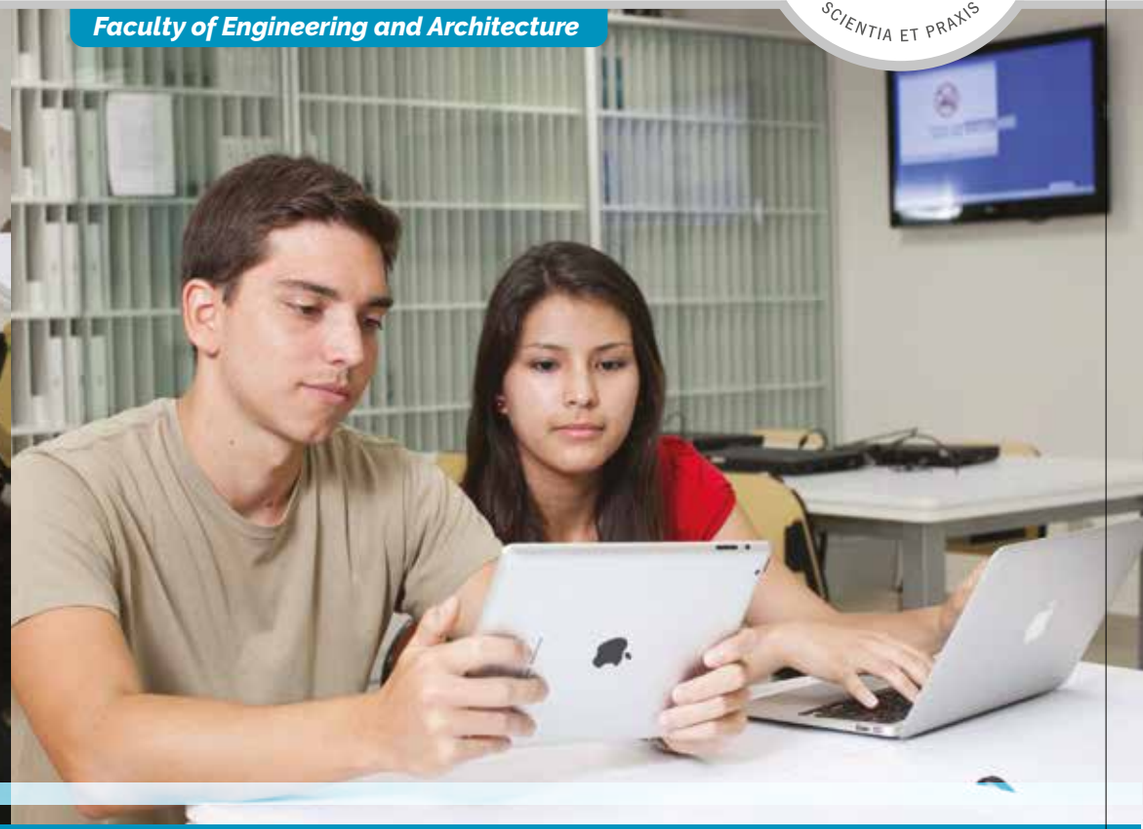

Major Diplomas in:

- Software Engineering
- Information Systems
- Information Technology

In order to graduate from the Career of Systems Engineering, students must prove that they have completed the intermediate level of English by submitting an English language proficiency certificate issued by any of the institutes recognized by the University of Lima.

Systems Engineering

Graduate students from the Career of Systems Engineering are qualified to integrate business processes, and to suggest, develop, implement and manage comprehensive information technology-based solutions. This will allow them to achieve organizations' strategic goals with a critical and research attitude. Therefore, our systems engineers will be able to:

- Lead information technology-based projects by working with multidisciplinary teams.
- Generate feasible and desirable solutions by using the information technology.
- Undertake proactively the generation of new businesses and improvement of those that already exist.

Systems Engineering
Subjects by Level

LEVEL I	LEVEL II	LEVEL III	LEVEL IV	LEVEL V	LEVEL VI	LEVEL VII	LEVEL VIII	LEVEL IX	LEVEL X
		Introduction to Business Information Technology 3 credits	Statistics and Probability I 3 credits	Statistics and Probability II 3 credits	Operations Research I 3 credits	Simulation 3 credits	Decision Support Systems 3 credits		
Basic Mathematics 5 credits	Linear Algebra 3 credits	Fundamentals of Systems Engineering 2 credits		System Modeling and Integration 3 credits		Database Administration 4 credits			Enterprise Architecture 3 credits
	Calculus I 5 credits	Calculus II 4 credits	Calculus III 4 credits	Business Process Engineering 3 credits	Data Engineering 4 credits	Business Intelligence Systems 3 credits	Digital Marketing 3 credits	Predictive Data Analytics 3 credits	Big Data Analytics 3 credits
	Economics and Business 3 credits		Business Organization 3 credits		Startup Workshop 3 credits		ERP Systems 3 credits	IT Service Management 3 credits	Wireless Networks 3 credits
Personal and Social Development 3 credits	Topics of Philosophy 3 credits		Accounting Management 2 credits	Cost of Operations 2 credits	Financial Management 3 credits	Operations Management 3 credits	Risk Management 3 credits	Strategic Planning 3 credits	IT Systems Security 3 credits
		Discrete Mathematics for Computer Science 2 credits		Development of Managerial Skills 3 credits	Legislation and Ethics 3 credits	Evaluation of IT Projects 3 credits	Research Proposal Workshop 3 credits	Thesis Seminar I 4 credits	Thesis Seminar II 4 credits
Language and Communication I 5 credits	Language and Communication II 3 credits	Introduction to Programming 3 credits	Object-Oriented Programming 3 credits	Data Structure and Algorithms 3 Credits	Programming Languages 3 credits	Web Programming 3 credits	Mobile Programming 3 credits	Project Management 3 credits	Human Capital Management 3 credits
Globalization and Peruvian Social Issues 4 credits	Social and Political Processes 3 credits	Physics I 4 credits	Fundamentals of Electricity and Electronics 3 credits	Human-Computer Interaction 3 credits		Cloud Computing 3 credits	Machine Learning 3 credits	Advanced Information Systems 3 credits	Systems Control and Audit 3 credits
Research Methodologies 3 credits				Internet of Things 3 credits		Software Engineering I 3 credits	Software Engineering II 4 credits	Quality Assurance 3 credits	Software Architecture 3 credits
		Computer Architecture 3 credits	Operating Systems 4 credits	Data Communication 3 credits	Computer Networks 4 credits	Computer Networking Seminar 4 credits	Data Center Architecture 4 credits	IT Architecture 3 credits	
Mandatory Credits 20	Mandatory Credits 20	Mandatory Credits 21	Mandatory Credits 22	Mandatory Credits 20	Mandatory Credits 20	Mandatory Credits 18	Mandatory Credits 16	Mandatory Credits 16	Mandatory Credits 10

- Mandatory Subjects of the School of Liberal Arts
- Mandatory Subjects of the Faculty of Engineering and Architecture*
- Mandatory Subjects of the Career of Systems Engineering
- Elective Subjects of the Career of Systems Engineering

* The Faculty of Engineering and Architecture comprises the Careers of Architecture, Civil Engineering, Industrial Engineering and Systems Engineering

Credit Summary	Credits	M/E
Total Liberal Arts Subjects	40	M
Total Mandatory Subjects	143	M
Total Elective Subjects	22	E
Total Credits	205	

Subject to curricular change

M.A. / R - 02 / 17