



## SPECIALIZATION IN

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

In order to graduate from the Systems Engineering Undergraduate Program, students must prove that they have completed the intermediate level of English, French, German, Italian or Portuguese by submitting a language proficiency certificate issued by any of the institutes recognized by Universidad de Lima.

# SYSTEMS ENGINEERING

Faculty of Engineering

Graduate students from the Systems Engineering Undergraduate Program are prepared to face the challenges and demands of organizations in a globalized context. They propose, implement, validate and manage innovative solutions based on information technologies with a comprehensive approach, allowing organizations to satisfy their needs and achieve their strategic objectives.



UNIVERSIDAD  
DE LIMA



# SYSTEMS ENGINEERING

Faculty of Engineering

LEVEL I	LEVEL II	LEVEL III	LEVEL IV	LEVEL V	LEVEL VI	LEVEL VII	LEVEL VIII	LEVEL IX	LEVEL X
Basic Mathematics <sup>5</sup>	Calculus I <sup>5</sup>	Fundamentals of Systems Engineering <sup>2</sup>	Statistics and Probability <sup>3</sup>	Applied Statistics <sup>3</sup>	Operations Research I <sup>3</sup>	Simulation <sup>3</sup>	Research Proposal Workshop <sup>3</sup>	Research Seminar I <sup>4</sup>	Research Seminar II <sup>4</sup>
Research Methodologies <sup>3</sup>	Economics and Business <sup>3</sup>	Calculus II <sup>4</sup>	Calculus III <sup>4</sup>	Systems Modeling and Integration <sup>3</sup>	Financial Management <sup>3</sup>	Operations Management <sup>3</sup>	Risk Management <sup>3</sup>	Strategic Planning <sup>3</sup>	Systems Control and Audit <sup>3</sup>
Personal and Social Development <sup>3</sup>	Linear Algebra <sup>3</sup>	Computer Management <sup>3</sup>	Accounting Management <sup>2</sup>	Operations Costing <sup>2</sup>	Legislation and Ethics <sup>3</sup>	Evaluation of Systems Engineering Projects <sup>3</sup>	Digital Marketing <sup>3</sup>	Project Management <sup>3</sup>	Human Capital Management <sup>3</sup>
Language and Communication I <sup>5</sup>	Philosophy Topics <sup>3</sup>	Discrete Structures in Computer Science <sup>2</sup>	Business Organization <sup>3</sup>	Development of Managerial Skills <sup>3</sup>	Startup Workshop <sup>3</sup>	Business Intelligence Systems <sup>3</sup>	ERP Systems <sup>3</sup>	Advanced Information Systems <sup>3</sup>	Enterprise Architecture <sup>4</sup>
Globalization and Contemporary Peruvian Issues <sup>3</sup>	Language and Communication II <sup>3</sup>	Introduction to Programming <sup>3</sup>	Object-Oriented Programming <sup>3</sup>	Business Process Engineering <sup>3</sup>	Data Engineering <sup>4</sup>	Database Management <sup>4</sup>	Decision Support Systems <sup>3</sup>	Predictive Data Analytics <sup>3</sup>	Big Data Analytics <sup>3</sup>
Civic Ethics <sup>1</sup>	Social and Political Processes <sup>3</sup>	Physics I <sup>4</sup>	Fundamentals of Electricity and Electronics <sup>3</sup>	Data Structures and Algorithms <sup>3</sup>	Programming Languages <sup>3</sup>	Software Engineering I <sup>3</sup>	Machine Learning <sup>3</sup>	Quality Assurance <sup>3</sup>	Video Game Programming <sup>5</sup>
		Computer Architecture <sup>3</sup>	Operating Systems <sup>4</sup>	Human-Computer Interaction <sup>3</sup>	Computer Networks <sup>4</sup>	Web Programming <sup>3</sup>	Software Engineering II <sup>4</sup>	Information Technology Services Management <sup>3</sup>	Software Architecture <sup>4</sup>
				Data Communication <sup>3</sup>		Seminar on Networks <sup>4</sup>	Mobile Programming <sup>3</sup>	Information Technology Architecture <sup>4</sup>	Information Technology Systems Security <sup>3</sup>
				Internet of Things <sup>3</sup>		Cloud Computing <sup>3</sup>	Data Center Architecture <sup>4</sup>		Cybersecurity <sup>3</sup>
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 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 Faculty\*



Credit Summary	No. of Credits	Type of Credit
General Studies	40	Mandatory
Faculty	143	Mandatory
Total Elective Subjects	22	Elective
Total Credits	205	

\* The Faculty of Engineering comprises the Civil Engineering, Industrial Engineering and Systems Engineering undergraduate programs.

Subject to curricular change.

