What are the requirements for the Computer Engineering program?

**M.S.** Students must demonstrate proficiency in fundamental areas by fulfilling the degree coursework requirements (48 units) and completion of a Master’s Thesis or Project.

**Ph.D.** Students must demonstrate proficiency in fundamental areas by fulfilling the degree coursework requirements (58 units), pass an oral qualifying exam and write a dissertation.

Please review the Computer Engineering graduate program requirements for more information: soe.ucsc.edu/departments/computer-engineering/graduate/requirements

The department has many ties to nearby industry, employing computer professionals as visiting faculty members and arranging for students to gain practical research experience through work in industrial labs.

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What salary (on top of tuition and fees) do first-year Graduate Student Researchers in your program earn?

Our GSRs earn between $6,300-7,600 per quarter.

When are graduate applications due for your program?

Ph.D. and M.S. Applications Due: January 3rd

Who can I contact for more information?

Katia Obraczka, Graduate Program Director  
(831) 459-4308, katia@soe.ucsc.edu  
Emily Gregg, Graduate Student Advisor  
(831) 459-2576, egregg@ucsc.edu  

ggrad.soe.ucsc.edu
Gabriel Elkaim Embedded systems, robust software architectures for real-time reactive systems, sensor fusion, guidance, navigation, and control (GNC) system identification, robust and advanced control schemes, feedback and control systems, robotics, unmanned autonomous vehicles (UAVs), cooperative control.

J. J. Garcia-Luna-Aceves Principles of computer communication, Internet, mobile and pervasive computing, wireless networks, information-centric networks, cyber-physical networks.

Matthew Guthaus Health sensor systems, digital health, mobile health applications; chip design (VLSI), electronic computer-aided design (ECAD), low-power circuits.

Richard Hughey Bioinformatics, hidden Markov models, computer architecture, parallel computation.

Tracy Larrabee Test pattern simulation and generation, fault modeling, fault diagnostics, design verification, logic simulation, technical writing.

Heiner Litz Data center operating systems, computer architecture, interconnection networks, OS design, memory and storage technology, cache coherency and parallel programming, building full stack prototypes.

Darrell Long Data storage systems, distributed computing systems, operating systems, mobile computing, performance evaluation, reliability and fault tolerance, computer security.

Roberto Manduchi Computer vision and sensor processing, with application to assistive technology for the visually impaired.

Patrick Mantey Sensor systems, internet of things, cyber physical systems, digital signal processing and control, decision support/recommender systems for real-time operations, renewable energy and micro grids, energy management, home activity monitoring and elder care/aging-in-place, geographic information systems in real-time resource allocation, information system architecture and performance, networking QoS, storage and multimedia streaming, automation, control and robotics, engineering management.

Ethan Miller File & storage systems, non-volatile memory systems, operating systems, computer security, distributed systems.

Dejan Milutinović Stochastic and nonlinear control, optimization, stochastic processes and estimation, hybrid and discrete event systems, signal processing and real-time computer control with applications to robotics, air-trafic and multi-agent systems.

Katia Obraczka Computer networks, distributed systems, operating systems, Internet information systems, mobile computing, wireless networks.

Chen Qian Computer networks, mobile and pervasive computing, security and privacy, cloud computing, internet of things.

Jose Renau Computer architecture, including design effort metrics and models, infrared thermal measurements and modeling, simulation, FPGA/ASIC design, mobile computing.

Ricardo Sanfelice Modeling, stability, robust control, observer design, and simulation of nonlinear and hybrid systems with applications to power systems, robotics, aerospace, and biology.

Martine Schlag VLSI design tools and algorithms, VLSI theory, field-programmable gate arrays, FPGA-based computing engines.

Mircea Teodorescu Dynamics, autonomous navigation, surface engineering, robotics, biomechanics.

Anujan Varma Computer networking, computer architecture, optical networks.

Michael Wehner Human-machine interface, soft robotics, soft wearable robots/exoskeletons, morphological computation, embedded intelligence, energy sources for mobile systems.