

## Post-graduate Certificates for International Students

Become eligible for one year of paid work  
in the US after your program





# Welcome to UCSC Silicon Valley

"UCSC Silicon Valley Extension welcomes and values international students. Our international program has grown in popularity attracting students from over 30 countries. Because we are located in the heart of Silicon Valley, we can offer students the opportunity to personally experience this dynamic hub of technology and innovation."

**Lynda M. Rogers, Ed.D**

*Dean of UCSC Extension*



## About UCSC Silicon Valley Extension

### A worldwide reputation for excellence

UCSC Silicon Valley is a branch of the world-renowned University of California, Santa Cruz, one of the US's premier public higher education institutions (ranked #82 in the 2016 U.S. News & World Report).

Located in Santa Clara, Silicon Valley Extension offers practical, career-oriented certificate programs right in the heart of Silicon Valley – an area world-famous for cutting edge innovation in IT, global business, and entrepreneurship.

The school's modern facility shares a neighborhood with some of the nation's top companies, including Apple, eBay, Intel, and Cisco. Its perfect location has helped make UCSC Extension attuned to the needs of industry.

## About Silicon Valley

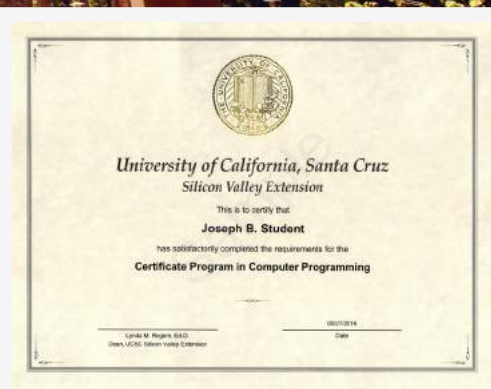
### The global hub for technological innovation

Silicon Valley is the nickname for the southern part of the San Francisco Bay Area, which is located in Northern California. It is home to many of the world's largest high-tech corporations and thousands of startup companies.

Silicon Valley is all of Santa Clara plus a little of neighboring counties. It's generally the southern part of the San Francisco Bay Area an hour by car to San Francisco and about 30 minutes by car to the beach at Santa Cruz.

With 300 sunny days per year the weather is hard to beat.



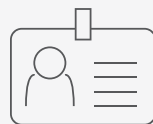


## Why choose UCSC Silicon Valley Extension?



### Become qualified in less than one year

Certificate programs are focused programs designed to give you advanced skills in a particular area of specialization. Certificates are earned in less than a year and cost a lot less than a traditional degree.



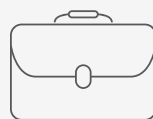
### Gain valuable Silicon Valley work experience

Benefit from at least one unpaid internship in your field of study during your time at UCSC extension.



### Learn from industry professionals and experts

Instructors are industry professionals and experts currently working in their fields. Instructors have strong academic credentials and are approved by the University of California.



### Optional fulltime work post graduation

Once you complete your certificate you may qualify for up to 12 months of paid work on your student visa with Optional Practical Training (OPT), granted through USCIS (*United States Citizenship and Immigration Service*).



### Valuable networking opportunities

Students are local Californian graduates and professionals who want to take their careers to the next level.

# ADMISSION REQUIREMENTS:

- Bachelor's Degree
- English Proficiency (TOEFL 80 iBT, IELTS 6.5, TOEIC 760) or enroll in the International Pathway Program

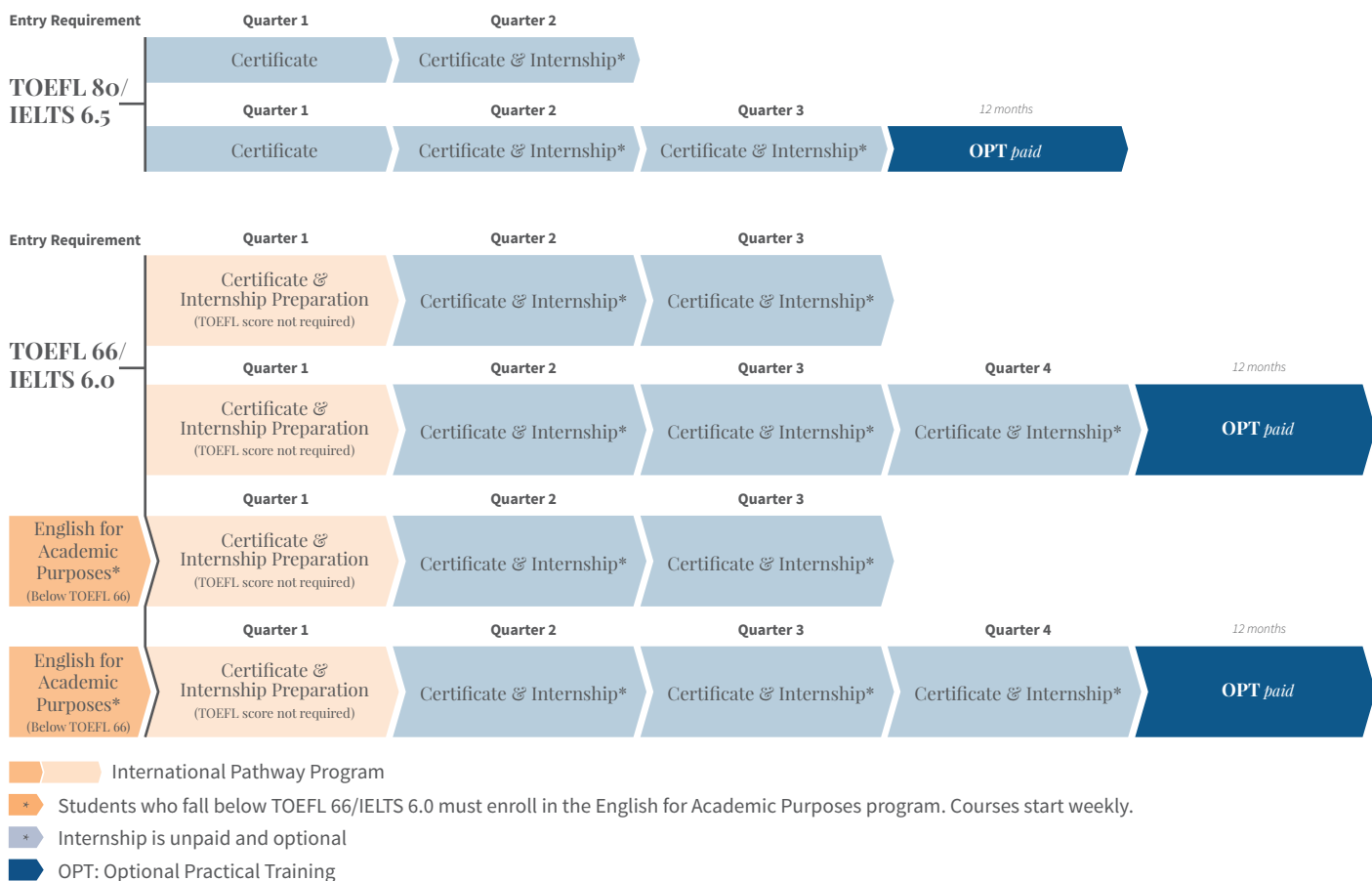
Documents to submit as part of a complete application are:

- ✓ Completed application form
- ✓ Copy of passport
- ✓ Bank statement (min \$25,000 USD\*)
- ✓ Copy of English level certification if available (TOEFL, IELTS, TOEIC)
- ✓ Copy of Degree Diploma (in English)

If you're applying from within the US as a transfer student the following additional documents need to be submitted as part of a complete application:

- ✓ Copy of visa stamp
- ✓ Copy of I-20
- ✓ Electronic I-94

\*\$25,000 covers both tuition and living expenses for one academic year and it's not a requirement for admission but a need for I-20



## Course Dates

International Pathway Program		Quarter	Certificate & Internship
English for Academic Purposes	Certificate & Internship Preparation		
Courses start weekly	2016: March 21 - June 10	Summer 2016	June 16 - August 31
	2016: June 13 - September 3	Fall 2016	September 1 - December 31
	2016: September 26 - December 17	Winter 2017	January 1 - March 31
	2017: January 9 - March 31	Spring 2017	April 1 - June 15
	2017: March 27 - June 16	Summer 2017	June 16 - August 31
	2017: June 13 - September 1	Fall 2017	September 1 - December 31

## FEES:

Registration Fee: \$150

I-20 Courier Fee: \$50

Student Insurance: \$19/week

Internship Advising\*: \$200 (not applicable for students enrolling in the International Pathway Program - Certificate & Internship Preparation Course)

\*Placements are not guaranteed

English for Academic Purposes: \$1,500/4 weeks

Additional week: \$375

Accommodation Placement Fee: \$300

Homestay: \$1,360/4 weeks

Homestay extra week: \$340

Airport Transfer one way (San Francisco /San José): \$120

### International Pathway Program

#### English for Academic Purposes

Although you may be confident in using English in everyday situations, the style of English you need to study at a university or college is quite different. In this intensive program, you will learn the high-level academic English you will need to succeed in your certificate program.

As part of this program you will improve in all four communication skills: speaking, listening, reading and writing, with a strong academic focus.

By the end of this course you will have raised your English level to TOEFL 66/IELTS 6.0 equivalent, and be eligible to progress onto the Preparation Course.

### International Pathway Program

#### Certificate & Internship Preparation

*Minimum level: TOEFL 66/IELTS 6.0*

After successfully completing this intensive 12-week course you will be able to enter your certificate program without having to take a TOEFL or IELTS exam.

You will be 100% ready to begin your certificate, and fully prepared with all the language and business skills you'll need to commence your first internship.

Remember, as an intern you will be working in a real-life business environment, where you will have to use English professionally at all times. Make sure your ability and confidence are high enough for tasks such as talking on the phone and dealing with clients. The better your English, the better the internship you will secure, and the better your OPT prospects upon graduation.

#### Language Benefits

- › Improve your level to a TOEFL 80 / IELTS 6.5 equivalent
- › Work on your Academic English: lecture, notetaking, academic writing, reading, public speaking and discussion skills
- › Become familiar with UCSC's teaching methods and learn what's expected of you in the classroom and from course assignments

#### Career Benefits

- › English for the Workplace: presentations, writing formal emails, calls, team discussions, participate in meetings
- › Learn American workplace culture
- › Enhance your resume writing (necessary for internship)
- › Develop interview skills (necessary for internship)
- › Support securing your first internship

### Internships (*unpaid*)

*Minimum level: TOEFL 80/IELTS 6.5*

Enrolling in a certificate program allows you to participate in multiple unpaid internships at local companies in your field of study.

Attending the 12-week Certificate & Internship Preparation course allows you to take an internship immediately in your first quarter. Students skipping this course spend the first quarter securing internships commencing in the second quarter. Generally, students taking the preparation course can take one internship per quarter.

Through an internship you will acquire valuable practical experience, add to your resume, and boost your career opportunities back home or for securing 12 months of paid work through Optional Practical Training. Gaining maximum exposure to companies in Silicon Valley during your internships is key to securing a strong OPT placement.

Each internship gives you 3 course credit units and requires a minimum of 90 hours during the quarter you are enrolled. As most American UCSC students are working professionals many certificate courses are held in the evenings and weekends which makes it easy for you to meet your internship hours requirement.

Internships are available across a variety of sectors, generally at mid-sized companies and startups.

Good internships are much sought after and highly competitive. To stand the best chance of securing your preferred placement, our Internship Coordinators are on hand with expert support and guidance.

### Optional Practical Training (OPT)

Optional Practical Training allows F-1 students, who have successfully completed three quarters of full time studies and gained a professional certificate, to apply for 12 months paid work in the US.

After completing 12 months of OPT, 23% of UCSC extension international students have found local companies to sponsor their visa applications, and have gone on to have careers in Silicon Valley and beyond.

Others students continue on to pursue graduate degrees or return to their home countries equipped with new skills and a brighter future.

Internships are crucial to finding a good job. Employers increasingly want to see experience in the graduates they hire. According to an annual survey by the National Association of Colleges and Employers (NACE), 95% of employers said candidate experience is a factor in hiring decisions. Nearly half of surveyed employers wanted new-graduates' experience to come from internships.

*Additional fees to U.S. Department of Homeland Security and UCSC to be paid when you complete your OPT Application will apply.*

# Certificate Programs

Courses in the certificate programs are subject to change based on schedule availability and/or student aptitude. Equivalent course substitutions will be made to accommodate.



## Applied & Natural Science

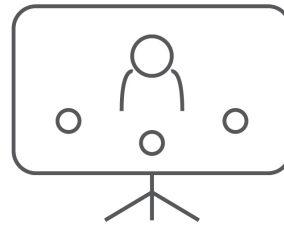
### Biotechnology

■ Certificate & OPT: 3 Quarters (29 Units)

Gain a solid understanding of the scientific disciplines that underlie the industry's activities, a foundation in the principles that guide drug discovery & development and an appreciation of cutting-edge bioscience research and technology.

#### Curriculum

- 29 units
- > Drug Discovery, Introduction | 3 Units
  - > Biochemistry, Introduction | 3 Units
  - > Drug Development Process | 2 Units
  - > Experimental Methods in Molecular Biology | 3 Units
  - > Cellular Biology | 3 Units
  - > Immunology, Principles | 3 Units
  - > Next Generation DNA Sequencing: Methods and Applications | 3 Units
  - > Human Physiology in Health and Disease | 3 Units
  - > Good Manufacturing Practices | 3 Units
  - > Regulation of Drugs and Biologics | 3 Units



## Business & Management

### Business Administration

■ Certificate & OPT: 3 Quarters (28 Units) - No Winter start date

Take advantage of the classes you need to prepare for your Masters in Business Administration (MBA), and fulfil some of the general business education requirements to become a Certified Public Accountant (CPA).

#### Curriculum

- 28 units
- > Finance I, Fundamentals | 3 Units
  - > Management and Organization Principles | 2 Units
  - > Principles of Marketing | 2 Units
  - > Microeconomics, an Introduction | 4 Units
  - > Intro to Accounting: Managerial Accounting | 4 Units
  - > Business Law and Its Environment | 3 Units
  - > Macroeconomics | 4 Units
  - > Organizational Development and Change | 2 Units
  - > Intro to Accounting: Financial Accounting | 4 Units



## Project and Program Management

■ *Certificate: 2 Quarters (15 Units)*

■ *Certificate & OPT: 3 Quarters (27.5 Units)*

Study with Silicon Valley's finest instructional team, all of whom are PPM certified. This, together with our 100 percent home-grown course content, makes our program truly one of a kind. Graduates state the PPM Certificate is one of the best known and most respected programs around.

### Curriculum



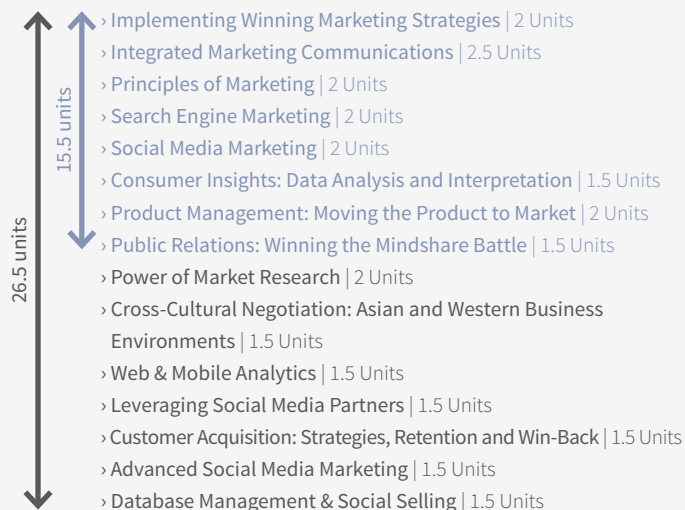
## Marketing Management

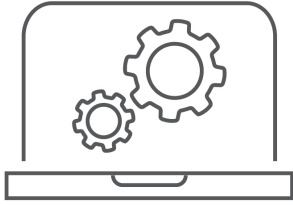
■ *Certificate: 2 Quarters (15.5 Units) - Fall only start date*

■ *Certificate & OPT: 3 Quarters (26.5 Units) - No Winter start date*

Acquire the knowledge, resources, tools, and ideas needed to succeed as a marketer in the nation's fastest moving marketplace. Today in Silicon Valley, demand for customer-savvy marketing professionals has never been greater.

### Curriculum





## Engineering & Technology

### Computer Programming

- Certificate: 2 Quarters (14.5 Units)
- Certificate & OPT: 3 Quarters (29.5 Units)

Establish a solid working knowledge of programming that goes beyond foundation level. Learn how to apply your new-found expertise to platforms and applications across the industry.

#### Curriculum

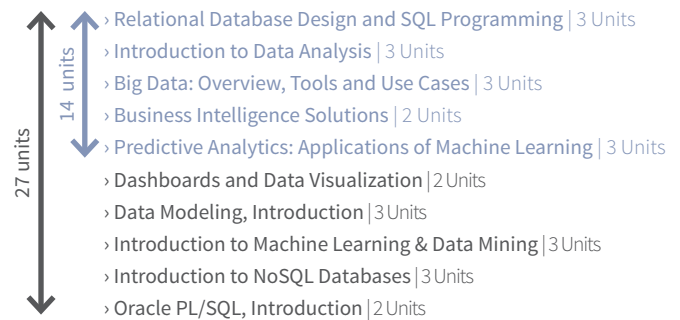


### Database and Data Analytics

- Certificate: 2 Quarters (14 Units)
- Certificate & OPT: 3 Quarters (27 Units)

Learn the principles and practices involved in handling business data and analysis, which are suitable for anyone who designs, administers, tunes, and uses shared databases.

#### Curriculum



*Instructors do more than teach; they share their industry experience and encourage students to explore networking events in Silicon Valley."*

– Motoko Tanaka *from* Japan

**COMPUTER PROGRAMMING, ENGINEERING**



## Embedded Systems

■ **Certificate:** 2 Quarters (14.5 Units)

■ **Certificate & OPT:** 3 Quarters (28 Units)

Equip yourself with the hands-on experience and the practical expertise needed to fully master embedded design. There are vast career and business opportunities in the industry in Silicon Valley and internationally.

### Curriculum

- 28 units
- 14.5 units
- › C Programming for Beginners | 3 Units
  - › C Programming, Advanced | 3 Units
  - › Digital Logic Design Using Verilog | 3 Units
  - › Embedded Systems Hardware Architecture, Introduction | 1.5 Units
  - › Practical Design with Xilinx FPGAs | 3 Units
  - › System Design for Low Power Management | 1 Units
  - › Linux, Introduction | 2.5 Units
  - › Embedded Firmware Essentials | 2 Units
  - › Real-time Embedded Systems Programming, Introduction | 3 Units
  - › Embedded Design with Xilinx FPGAs | 3 Units
  - › The Internet of Things: Communication and Cloud | 3 Units

## Information Technology

■ **Certificate:** 2 Quarters (14 Units)

■ **Certificate & OPT:** 3 Quarters (29.5 Units)

Keep up-to-date on current industry trends on this focused and efficient program. Courses are taught by senior professionals from major Silicon Valley companies. The accredited certificate provides a professional credential that can help you succeed in Silicon Valley.

### Curriculum

- 29.5 units
- 14 units
- › Computer Networking Essentials | 3 Units
  - › Computer, Network and Internet Security Fundamentals | 3 Units
  - › Mobile Payments, e-Commerce Security, and Cryptocurrency | 3 Units
  - › TCP/IP Essentials | 2 Units
  - › Linux, Introduction | 2.5 Units
  - › Cloud Computing | 0.5 Units
  - › Storage Technology in Data Centers | 3 Units
  - › Switching and Routing | 3 Units
  - › VMware vSphere: Configuration and Management | 3.5 Units
  - › Linux System and Network Administration | 3 Units
  - › Wireless Communications and Mobile Antenna Design, Introduction | 3 Units

## Internet Programming and Development

■ **Certificate & OPT:** 3 Quarters (28.5 Units)

Obtain a deeper understanding of the major development frameworks and software architectures on the Internet today. Cover all major platforms, including Java Enterprise Edition, Microsoft .NET, and Open Source. Topics range from basic programming languages and server development to Rich Internet Applications (RIA).

### Curriculum

- 28.5 units
- › JavaScript and AJAX, Comprehensive | 3 Units
  - › Developing Java and Java EE Applications with Spring Framework and Hibernate | 3 Units
  - › Cloud Computing, Introduction | 0.5 Units
  - › Designing, Building and Integrating RESTful API | 2 Units
  - › Developing JavaScript-based Rich Web UI with JQuery | 2 Units
  - › Introduction to Web Programming: JavaScript and PHP | 2 Units
  - › Programming for Cloud Computing: Amazon Web Services | 2 Units
  - › Ruby and Ruby on Rails | 2 Units
  - › Java Programming for Beginners | 2 Units
  - › Java Programming, Comprehensive | 3 Units
  - › User Experience Design Fundamentals | 3 Units
  - › Designing with Cascading Style Sheets, Fundamentals | 2 Units
  - › HTML Fundamentals | 2 Units

## Linux Programming and Administration

■ **Certificate:** 2 Quarters (14 Units)

■ **Certificate & OPT:** 3 Quarters (29 Units)

Develop a solid foundation in configuring, operating and programming open, multi-user, multi-tasking Linux operating systems. The skills learned here are highly applicable to today's work environment.

### Curriculum

- 29 units
- 14 units
- › C Programming for Beginners | 3 Units
  - › Computer Networking Essentials | 2.5 Units
  - › Linux Introduction | 2.5 Units
  - › Linux Systems Programming | 3 Units
  - › Linux System and Network Administration | 3 Units
  - › Linux System Performance in the Cloud and Data Center | 3 Units
  - › Linux Based Web Application Development - Apache, MySQL, PHP | 3 Units
  - › Linux Kernel Architecture and Programming | 3 Units
  - › Embedded Linux Design and Programming | 3 Units
  - › Linux Device Drivers | 3 Units
  - › Storage Technology in Data Centers | 3 Units



*It was very cool being around people that work in the big companies you've always followed. You get to study with them and understand the work they're doing. Everything you need to get your skills up and running."*

– Alejandro Jimenez *from* Colombia

**EMBEDDED SYSTEMS, ENGINEERING**

## Software Engineering and Quality

■ Certificate & OPT: 3 Quarters (28 Units)

Follow a program unique in the way it brings together software engineering, testing and software design courses under a single umbrella. This provides students with integrated training across key disciplines to better position them for growth in the software development industry.

### Curriculum

- 28 units
- › Object-Oriented Analysis and Design | 3 Units
  - › Software Quality Assurance and Testing | 2 Units
  - › User Experience Design Fundamentals | 3 Units
  - › Data Structures and Algorithms Using Java | 3 Units
  - › JUnit Test Framework | 1.5 Units
  - › Mobile Interface Design | 3 Units
  - › Object-Oriented Development: Architectures and Design Patterns, Advanced | 3 Units
  - › Software Testing: Techniques, Tools and Practices | 3 Units
  - › Java Programming for Beginners | 2 Units
  - › Machine Learning & Data Mining, Introduction | 3 Units
  - › Adobe Illustrator, Introduction | 1.5 Units

## VLSI Engineering

■ Certificate & OPT: 3 Quarters (28.5 Units)

Gain practical experience using the latest EDA tools on Linux in fully upgraded state-of-the-art VLSI Lab at the Santa Clara facility. Courses do not just focus on the tools but also offer an overall understanding of the design methodology and flows.

### Curriculum

- 28.5 units
- › Developing the Nanometer ASIC: From Spec to Silicon | 2 Units
  - › Practical Design with Xilinx FPGAs | 3 Units
  - › Digital Logic Design Using Verilog | 3 Units
  - › Linux, Introduction | 2.5 Units
  - › Physical Design Flow from Netlist to GDS-II | 3 Units
  - › Logic Synthesis, Introduction | 3 Units
  - › Low-Power Design of Nano-Scale Digital Circuits | 3 Units
  - › System Verilog for ASIC and FPGA Design | 3 Units
  - › Mixed-Signal Design | 3 Units
  - › System Verilog Essentials: Functional Verification and Simulation | 3 Units

## Web and Interactive Media Design

■ Certificate & OPT: 3 Quarters (29 Units)

Meet the needs of a changing industry. This newly revised certificate program organizes courses in several tracks of study, including visual design, design implementation, user experience design and site management.

### Curriculum

- 29 units
- › HTML Fundamentals | 2 Units
  - › Designing with Cascading Style Sheets: Fundamentals | 2 Units
  - › Designing with Cascading Style Sheets: Advanced | 2 Units
  - › HTML5: The Living Language | 3 Units
  - › Introduction to Website Hosting and Optimization | 1 Unit
  - › Mobile Interface Design | 3 Units
  - › Adobe Photoshop, Introduction | 1.5 Units
  - › Visual Design for the Interactive Web | 2.5 Units
  - › Adobe Illustrator, Introduction | 1.5 Units
  - › User Experience Design Fundamentals | 3 Units
  - › Graphical Production for the Web | 1.5 Units
  - › Web Design Using Open Source Design Patterns, Libraries and Frameworks | 2 Units
  - › Multimedia Fundamentals | 2 Units
  - › Web Design Project | 2 Units



*"I loved the program; it was an excellent chance to exchange ideas with people from Cisco, Intel, Apple, Netflix, and see what approaches they were using."*

– Fernando Barbosa de Azevedo *from* Brazil

**INTERNET PROGRAMMING & DEV, ENGINEERING**

# 2016/2017 Academic Year

		Qualify for Certificate only NOT eligible for OPT				Qualify for Certificate & OPT				Estimated Course Materials
		Quarters/Terms	Internships*	Units	Fee	Quarters/Terms	Internships**	Units	Fee	
<b>Applied &amp; Natural Science</b>										
<b>Biotechnology</b>	IPP - Certificate & Internship Preparation Course + Certificate					4	3	29 + max 9	\$16,000	\$1,000
	Certificate only					3	2	29 + max 6	\$11,500	
<b>Business &amp; Management</b>										
<b>Business Administration</b>	IPP - Certificate & Internship Preparation Course + Certificate					4	3	28 + max 9	\$15,000	\$250
	Certificate only					3	2	28 + max 6	\$10,500	
<b>Project &amp; Program Management</b>	IPP - Certificate & Internship Preparation Course + Certificate	3	2	15 + 6	\$14,000	4	3	27.5 + max 9	\$19,000	\$485
	Certificate only	2	1	15 + 3	\$9,500	3	2	27.5 + max 6	\$14,500	
<b>Marketing Management</b>	IPP - Certificate & Internship Preparation Course + Certificate	3	2	15.5 + 6	\$13,500	4	3	26.5 + max 9	\$17,500	\$700
	Certificate only	2	1	15.5 + 3	\$9,000	3	2	26.5 + max 6	\$13,000	
<b>Engineering &amp; Technology</b>										
<b>Computer Programming</b>	IPP - Certificate & Internship Preparation Course + Certificate	3	2	14.5 + 6	\$13,000	4	3	29.5 + max 9	\$18,000	\$250
	Certificate only	2	1	14.5 + 3	\$8,500	3	2	29.5 + max 6	\$13,500	
<b>Database and Data Analytics</b>	IPP - Certificate & Internship Preparation Course + Certificate	3	2	14 + 6	\$13,000	4	3	27 + max 9	\$18,000	\$300
	Certificate only	2	1	14 + 3	\$8,500	3	2	27 + max 6	\$13,500	
<b>Embedded Systems</b>	IPP - Certificate & Internship Preparation Course + Certificate	3	2	14.5 + 6	\$13,000	4	3	28 + max 9	\$18,000	\$300
	Certificate only	2	1	14.5 + 3	\$8,500	3	2	28 + max 6	\$13,500	
<b>Information Technology</b>	IPP - Certificate & Internship Preparation Course + Certificate	3	2	14 + 6	\$13,000	4	3	29.5 + max 9	\$18,000	\$250
	Certificate only	2	1	14 + 3	\$8,500	3	2	29.5 + max 6	\$13,500	
<b>Internet Programming and Development</b>	IPP - Certificate & Internship Preparation Course + Certificate					4	3	28.5 + max 9	\$18,000	\$250
	Certificate only					3	2	28.5 + max 6	\$13,500	
<b>Linux Programming and Administration</b>	IPP - Certificate & Internship Preparation Course + Certificate	3	2	14 + 6	\$13,000	4	3	29 + max 9	\$18,000	\$300
	Certificate only	2	1	14 + 3	\$8,500	3	2	29 + max 6	\$13,500	
<b>Software Engineering &amp; Quality</b>	IPP - Certificate & Internship Preparation Course + Certificate					4	3	28 + max 9	\$18,000	\$250
	Certificate only					3	2	28 + max 6	\$13,500	
<b>VLSI Engineering</b>	IPP - Certificate & Internship Preparation Course + Certificate					4	3	28.5 + max 9	\$18,000	\$200
	Certificate only					3	2	28.5 + max 6	\$13,500	
<b>Web and Interactive Media Design</b>	IPP - Certificate & Internship Preparation Course + Certificate					4	3	29 + max 9	\$18,000	\$200
	Certificate only					3	2	29 + max 6	\$13,500	

IPP: International Pathway Program

\* Internship units can be taken in addition to the course load

\*\* Internship units can replace course units (3 per quarter) or be taken in addition to the course load - the choice is yours

**Registration Fee:** \$150

**I-20 Courier Fee:** \$50

**Student Insurance:** \$19/week

**Internship Advising:** \$200 (not applicable for students enrolling in the International Pathway Program - Certificate & Internship Preparation Course)

\*Placements are not guaranteed

**International Pathway Program - English for Academic Purposes:** \$1,500/4 weeks

**Additional week:** \$375

**Accommodation Placement Fee:** \$300

**Homestay:** \$1,360/4 weeks

**Homestay extra week:** \$340

**Airport Transfer one way**

**(San Francisco/San José):** \$120

**PRICES ARE VALID FOR ACADEMIC YEAR 2016-2017**

# Discover San Francisco Bay Area - Home of Silicon Valley



San Jose



San Jose



San Jose



Santa Cruz



San Francisco