

DevOps CI/CD

Specialized Certificate

DevOps

In this digital era, software has become an integral part of any business transaction and internal operation. To keep up with the competition and retain customers, organizations had to shorten software delivery, improve software quality and security. As a set of practices that combines software development (Dev) and IT operations (Ops), DevOps has proven to help organizations accelerate application delivery, reliability, and security by adopting a set of methodologies and tools to streamline the development cycle.

Program Overview

The specialized certificate in DevOps CI/CD aims to train participants with the skills to implement and integrate the tools to build a complete DevOps infrastructure and pipelines environment. They will learn techniques widely applicable to projects in the industry, processes, and tools to achieve continuous integration and delivery (CI/CD) by connecting and automating all phases of software delivery. Students will obtain hands-on experience with Jenkins Pipelines creation, Jenkins integration with integration and delivery tools including Maven, GitHub, SonarQube, Nexus, JMeter, Packer and Terraform.

Program Audience

The target audience for this program ranges from the recent graduates in Computer Science or Computer Engineering or Software Engineering to engineers, architects, and developers, who wish to learn the core strategies of DevOps. It is also intended for managers and technical leads that want to learn how to implement DevOps.

Program Details

Prerequisites

Students should have knowledge of basic System Integration and Test methods, tools, and terms. Knowledge of AWS Environment is desirable, but not required.

Length

Students may complete the certificate in 1 year by taking one course per quarter for four consecutive quarters. They have up to five years to complete all the requirements for the certificate starting from the first course taken or enrollment in the certificate which ever came first.

Cost

The estimated total cost of this program is \$3,315 which includes the \$95 certificate fee. *Please note that all fees are subject to change and do not include textbooks/course materials. This is an estimate of the cost of the program, which may vary based on a variety of factors. This estimate does not include textbooks, parking, transportation, or personal expenses. All estimated costs are subject to change; current fees are posted on our website.*

Requirements

Planned course offerings by quarter for this certificate are listed below. Please refer to the certificate page to verify available sections to enroll. Once enrolled in a certificate, visit myextension.ucsd.edu to track your progress and view your required and elective courses. All courses applied to the certificate must be completed within five years.

Required Courses - All three courses are required.					
TITLE & COURSE NUMBER	UNITS	FALL	WINTER	SPRING	SUMMER
Build Automation with Jenkins CSE-41379	3.0	Online		Online	
Continuous Integration and Continuous Testing CSE-41380	3.0		Online		Online
Deployment Automation CSE-41381	3.0	Online		Online	
Elective Courses - One Required					
TITLE & COURSE NUMBER	UNITS	FALL	WINTER	SPRING	SUMMER
AWS Academy Cloud Developing CSE-41337	4.0		Online		Online
Cloud Computing Architecture using Amazon Web Services (AWS) CSE-41280	4.0	Online		Online	
Kubernetes CSE-41382	3.0		Online		Online
DevSecOps CSE-41376	3.0	Online		Online	
Linux Cloud Infrastructure CSE-41369	3.0		Online		Online

Frequently Asked Questions

About the Certificate

How do I apply to the certificate program?

STEP 1: If you have a My Extension account, skip to Step 2. If you do not have a My Extension account, go to myextension.ucsd.edu, click "Create an account" on the right side of the page, and follow the instructions to create an account. Once you have a My Extension account, continue to Step 2.

STEP 2: Click on the "Apply Now" button on the [certificate page](#). Complete the required fields on the application. Then click Save Your Work button. Once you have saved the application, the "Submit" button will appear. Click the "Submit" button to submit your application for review and consideration. Once submitted, your application cannot be changed. You can track the progress of your application at [My Extension](#).

Is there an application fee for the certificate program?

Current application or certificate enrollment fees, if any, are listed under the "Apply Now" button on the [certificate page](#) on our website.

Can I register for the certificate program at any time?

Yes, you may enroll in the program at any time. However, it is recommended that you enroll as soon as possible. The program curriculum may be updated at any time; if certificate requirements change, you must adhere to the curriculum *at the time of your enrollment into the certificate*. Enrolling in the certificate also gives you access to quarterly, personalized enrollment reminders from the program manager.

Can this certificate program be completed entirely online?

Yes! This program is taught in online format and can be completed in the convenience of your own home or office. For online courses, all assignments, tests, and quizzes can be completed online and submitted through Canvas, our online learning platform. Click on the grey student tab at the top of the page, next click getting started on the left side column, next you can [take-the-tour](#) or select various topics for a more in-depth look at our Canvas system.

How long do I have to complete the certificate?

You officially have five years from when you enrolled in the program or begin taking courses in the program (whichever is earlier) to complete all requirements for the certificate.

Will I get any hands-on experience in the program?

Most courses combine theory with hands-on exercises.

Is the program accredited?

The Western Association of Schools and Colleges (WASC) accredit UC San Diego. All courses and certificate programs offered by UC San Diego Division of Extended Studies have been developed and are administered in accordance with Division of Extended Studies policy and the regulations of the Academic Senate of the University of California.

Will this program prepare me for a certification exam?

No, this program does not prepare you for a certification exam, but this program is designed to provide students with a robust knowledge of DevOps that will make them valuable in the workforce.

How do I get my certificate once I have completed the requirements?

When you have paid your certificate fee and successfully completed all program requirements, you will need to request an audit by Student Services. To request an audit:

- In your [My Extension](#) account, click on "My Courses."
- On the right side of the page under "My Certificates," click on the name of the certificate.
- On the right side of the page under "Tools," click on "Request Certificate Audit."
- Complete and submit the form that appears.

Once you have formally submitted your audit request, your certificate will be mailed to the address we have on file for you within ten business days.

Can a course count towards more than one certificate?

Yes, a course can count towards the certificate requirements in more than one certificate. Please note though that all courses must be completed within five years in order for it to count towards the certificate. This basically means you have five years to complete both certificate from the time you started the first course that will count towards both certificates.

Is financial aid available?

- UC San Diego Division of Extended Studies offers continuing education loans through UC Approved Lenders. Each institution offers low competitive interest rates and flexible payment options. You are also encouraged to contact your personal financial institution about possible lending solutions. Direct links to UC Approved Lenders can be found on our website's [Financial Resources](#) page.
- The Employment Development Department (EDD) provides a comprehensive range of employment and training services in partnership with state and local agencies/organizations. More information is available on their website at edd.ca.gov.
- Career Centers Located throughout San Diego County offer their communities comprehensive employment and training services benefiting both business and job seekers. More information is available on their website at workforce.org.
- [Please click here for information about Veteran's Benefits.](#)
- Free Application for Federal Student Aid (FAFSA) funds are limited to degree programs only, and cannot be used for courses or certificate fees at UC San Diego Division of Extended Studies.

About the Courses

When does course enrollment open for each quarter?

Our classes post to our website and become open for enrollment approximately two months prior to the new quarter starting. If you'd like to get an email reminder you can sign up for our newsletter(s) in [My Extension](#), under the "Preferences" tab.

When should I enroll in a course?

We recommend enrolling as soon as possible, as occasionally classes will reach capacity.

Once I have enrolled in a course, when will I get online access to it?

If you have enrolled at least three days before the course begins, you will have access starting on the first day of class. You should receive an email from Student Services with instructions for how to login to the course. If you have enrolled on or after the start date of the course, you will have access to the course within one business day.

When does enrollment for a course close?

Enrollment in a course may be closed for one or more of the following reasons:

- The course is at capacity. If the course is at capacity you will only be able to join the waitlist. If space becomes available in the course, students on the waitlist are contacted in the order they joined the waitlist.

- The course has progressed to a point where students will no longer be able to make-up missed work and be successful in the course.
- The course is cancelled due to low enrollments.

For all three of these reasons we recommend students enroll early in the courses they are interested in.

When is the refund deadline for courses?

The refund deadline for courses in this program is typically one week after the start of the course. This allows you to enroll in a course and participate in the course for approximately one week to determine if the course is a good fit. Then, if needed, either you may either transfer your enrollment to a different course or submit a drop request. The exact refund deadline for each section is listed in the section notes.

What are the grading options for courses?

You may take a course for one of three options: Letter Grade, Pass/No Pass, or Not for Credit. If you are taking a course towards a certificate you *must* complete your courses for credit (i.e. Pass/No Pass or Letter Grade) and receive a C-/Pass or higher grade. Grades below a C-, No Pass, and Not for Credit will *not* count towards certificate requirements.

How will I receive my final grade?

Once the course is completed, the instructor has 10 working days to submit your grades. After the grades have been posted, you can view and print them via [My Extension](#), your online education management portal. Please contact Student Services at 858-534-3400 or unex-reg@ucsd.edu if you experience any issues with logging in.

What kind of credit do I earn?

The courses in this program are post-baccalaureate, professional-level, credit bearing courses. Credit earned in these courses may lead to the award of a formal certificate by UC San Diego Division of Extended Studies or may be applied toward an academic degree or professional credential, *subject to the approval of the receiving institution*.

If you wish to transfer credit, it is your responsibility to confer with the receiving institution before enrolling, as each individual academic institution decides whether or not to accept Division of Extended Studies' credits.

Are courses transferrable?

UC San Diego Division of Extended Studies is not a degree granting institution, however many UC San Diego Division of Extended Studies courses can be transferred to other colleges or universities. The transferability of credit is determined solely by the *receiving* institution. You should discuss how your individual courses will transfer with the Office of the Registrar at the receiving institution *prior to enrolling*.

Can I take a course without registering for the certificate?

Yes, you may take any course in this program without registering for the certificate, provided you have fulfilled any and all prerequisites for the course.

How long is each course?

Three-unit courses run for approximately 9 weeks. For exact course dates of upcoming sections, visit the webpage of the course you are interested in taking on our [website](#).

When is each course offered?

Please visit the course page on our [website](#) to see when courses are typically offered. You can also see a full program schedule by clicking on the "View Schedule" button under the "Courses" section on the [certificate page](#).

Can I enroll in more than one course per quarter?

This will vary according to your background and experience. However, the three required courses in this program must be taken in the order listed on the certificate course matrix. If you wish to take more than one course per quarter, you should contact the program manager via email at infotech@ucsd.edu.

How can I get more information on the specific courses?

Please email infotech@ucsd.edu to request specific course syllabi.

How many hours can I expect to spend studying outside of class time?

Each student has their own learning style so this can vary greatly. As a rule of thumb, expect to spend an average of 6-8 hours each week on homework assignments.

How are online classes formatted?

The online courses are asynchronous. They have a start and end date, but all the lessons are uploaded on Canvas, our online learning management system, so that you can learn at your own pace. However, please be aware that you may have weekly assignments, quizzes and/or tests that are due on specific dates. Please click [here](#) to take a sample course tour to see if this format suits your learning style (click on the words Take a Course Tour in the upper right-hand corner of the page). You should also click on the grey student tab and then select getting started for a more in-depth view of our online Canvas system.

For online courses, will I ever need to attend in person?

The online courses in this program are offered entirely online. All course requirements, including lectures, tests, quizzes, and assignments will be completed online. You will not be required to attend in person.

What are the instructors' credentials?

The program courses are taught by seasoned professionals and overseen by an advisory board of leaders in the field. You can view the advisor list under the "Advisors" section on the [certificate page](#). You can find information about a course instructor, including a biography and credentials, on the course page.

What are the required textbooks for a course?

Instructors will post the current text requirements and recommendations on the course page on our website. Please note the textbooks requirements are subject to change every quarter and different instructors may require different books, even if they are teaching the same course in the same quarter, so be sure to check the textbook requirements *for the section in which you are enrolling*.

Will I be able to order the required textbooks before the class begins?

Yes, you can order the book(s) any time after enrolling in the course. You may order books through the campus bookstore or online retailers, such as Amazon.com.

After I enroll in a course, how can I retrieve a receipt or enrollment verification for my records?

Login to your [My Extension](#) account and select "Documents" as the top of the page.

What if I am having trouble with Canvas or My Extension?

Please contact Student Services at (858) 534-3400 or unex-reg@ucsd.edu if you experience any issues logging in to any of our systems.

For More Information

For program specific questions, please visit the certificate page on our website or contact the program representative at infotech@ucsd.edu. For administrative questions, please contact Student Services Department at unex-reg@ucsd.edu or (858)534-3400.