

# School of Technology

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“Learning by making is the best way to learn a programming language.”

Joel McNierney, OST student



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# About OST

The O'Reilly School of Technology (OST) was originally founded in 1997 as a private educational company called Useractive. Working in close partnership with the University of Illinois at Urbana-Champaign—a top-tier computer science university and a pioneer in online learning—Useractive set out to build a new and exceptional school that would provide high-quality IT courses and certificate series to its students. Useractive developed the revolutionary “Sandbox” system where students are guided to make their own discoveries through constructionist methods—building theories through experimentation, and receiving help and feedback from instructors through Socratic exchanges—with no passive lecturing or students hiding in the back row.

In 2005, Useractive was acquired by O'Reilly Media, itself a pioneer in information technology. O'Reilly Media, Inc. has enabled innovators to connect with one another and to share their knowledge with the world for over 30 years. With an academic approach to publishing, research, conferences, and spotting trends, O'Reilly continually helps propel the evolution of the Internet. Discerning professionals the world over look to O'Reilly for guidance as they navigate the ever-changing landscape of information technology. Through an unprecedented partnership between the University of Illinois and O'Reilly, these two IT leaders originally combined to create O'Reilly Learning, now called the O'Reilly School of Technology.

OST is a private continuing-education and professional-development institution providing aspiring IT professionals and adult learners with innovative online education that allows them to develop skills through practical application and instructor feedback. We offer a diverse array of online courses and Certificates of Professional Development that help students gain the knowledge and skills they need to begin IT careers or propel their

existing careers further. OST students work on their own time, at their own pace, with dedicated instructor assistance and feedback. After completing one of our professional development programs, our students not only earn a certificate to verify their mastery of the skills required, but they also have a portfolio of complete real-world projects that demonstrate their proficiency. This tangible evidence of expertise has proven to be invaluable to our students as they seek employment or advancement in their careers.

As a prospective student, you are encouraged to review this catalog prior to signing an Enrollment Agreement. You are also encouraged to review the School Performance Fact Sheet, which will be provided to you prior to signing an Enrollment Agreement.

*Phone: (707) 827-7288 | 1005 Gravenstein Hwy North,  
Sebastopol, California 95472 | [oreillyschool.com](http://oreillyschool.com)*



Tim O'Reilly, founder and CEO of O'Reilly Media, speaking at the Education 2.0 Summit

# A Message from the President



W elcome to O'Reilly School of Technology (OST), the official educational arm of O'Reilly Media, Inc. O'Reilly Media's motto is "Spreading the Knowledge of Innovators." Now, with the

O'Reilly School of Technology, we are using the knowledge of information technology experts to pave the way for you to become an innovator yourself. Our primary focus is to provide an outstanding educational experience where you can explore, learn, and achieve in a safe and supportive environment and where you and your instructor are partners in discovery.

With OST's convenient online courses, you will be able to master the learning objectives of your courses on your own schedule. You will find your instructors to be knowledgeable and patient. We pride ourselves on the level of accessibility and flexibility of our faculty and student services.

Thank you for your interest in OST. Our entire faculty and staff look forward to facilitating your experience in our courses.

A handwritten signature in black ink that reads "Laura Baldwin". The signature is fluid and cursive, with a long, sweeping underline.

Laura Baldwin  
President  
O'Reilly Media, Inc.

# A Message from the Executive Director



Welcome to O'Reilly School of Technology! OST is dedicated to delivering student-centered, up-to-date online courses and certificate programs in IT. As a division within O'Reilly Media, we embody our parent company's mission to "change the world by spreading the knowledge of innovators." We do this by providing you with the tools you need to achieve your potential.

We at OST are here to inspire and enable you to use technology to transform the future. To do this, we offer:

- An effective approach to online instruction that is designed from within the technology being taught and that will enable you to acquire new skills and knowledge by exploring and learning from your mistakes.

- An instructor who will work with you and guide you to achieve the learning outcomes of your course. OST instructors are passionate about teaching and learning. They are there to answer your questions, help you learn to ask the right questions and to provide feedback on your course work. In fact, 94% of students report that their instructor facilitates their learning effectively.
- A proficiency-based learning model that assures you will have mastered all of the promised skills when you complete a course.
- Nearly two decades of experience in providing online IT training using innovative constructionist techniques.
- A commitment to continually improving our curricula and services based on course reviews, student feedback, and other assessments of our performance.

Everyone at OST is dedicated to giving you the most satisfying and effective learning experience possible. Thank you for considering OST for your IT training needs and please let us know how we can be of service. We look forward to working with you.

A handwritten signature in black ink, which appears to read "Debra Woods".

Debra Woods  
Executive Director  
O'Reilly School of Technology

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# Mission, Goals, and Objectives

## OST Mission Statement

*At O'Reilly School of Technology, our passion is Learning by Making.*

The O'Reilly School of Technology fosters exploration, learning, and achievement in an environment where students and instructors are partners in discovery. We provide online distance education where theory is put into practice, and students become accomplished builders of technology.

## Goals

At the O'Reilly School of Technology we strive to:

- Provide quality online professional development programs that enable learners to meet their academic, professional, and personal goals.
- Maintain the currency and relevance of our courses and curricula to keep up with trends and the changing needs of the workforce.
- Be a leader in the development of tools and technologies that support guided constructionist methods in online teaching and learning.
- Implement optimal technical solutions to deliver online programs and services with maximum accessibility and flexibility.
- Promote Learning by Making within STEM and related fields.
- Embody in our educational practices the highest ethical and professional standards, principles of academic integrity, and respect for the individual.

## Objectives

All programs offered at the O'Reilly School of Technology share the following learning objectives. These objectives are continually shaped by students, faculty, staff, employers, and by changes within the Information Technology (IT) and STEM fields. Each learner is expected to:

- Demonstrate mastery of the course and program learning objectives.
- Apply the skills learned in the course or program to create substantial projects, similar to those they will encounter and produce in the real world.
- Generate multiple possible solutions to problems by thinking creatively and analytically.
- Evaluate possible approaches and solutions according to best practices in the field.
- Integrate learning from successive courses into increasingly complex solutions.

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# How OST Courses Work

## The Useractive Methodology

All of our courses are presented online and are self-paced. This means there are no class schedules; you may enroll in a course at any time and finish it as quickly as you like within your enrollment agreement period.

The O'Reilly School of Technology has developed an online learning technique called *useractive learning*. *Useractive* means that you, the *user*, are *actively* engaged in building and creating projects as the material is being presented. We avoid the use of presentational videos and simulations, and instead provide you with tutorial-style content and Learning Sandboxes that contain easy-to-use, real, and open programming environments where you can experiment with examples and work on projects.

From the moment you enroll, you'll start programming, working through simple examples, learning by doing as you go. You'll be actively engaged in our Learning Sandboxes, where you have permission to experiment, make mistakes, and learn from those mistakes. As you progress, you'll build more and more complex programs or system-administration tasks. We'll guide you through every part of this process, step by step, until you get it right.

Your skills will be reinforced as you work on increasingly challenging projects and open-ended quizzes that you'll hand in to your instructor for evaluation. Your instructor will return your work to you for revision and improvement until you get it right and have a thorough grasp of the concepts. Once you master each project, you'll move on to the next step in the course, building on what you've learned.

You will continue to make gradual progress in this way until you are ready to apply your skills beyond your OST coursework. When you arrive at that point, you will have built an online professional portfolio that you can keep and share proudly, even after you have completed your OST course of study. Your portfolio can serve as a complement to your resumé, or for you to keep and use as a reference tool to return to when you want to brush up on your skills later.

## Learning Sandbox

Your learning takes place using our proprietary Integrated Development Environments (IDEs) called Learning Sandboxes. Within these Sandboxes, you will go through lessons, experiment with the examples, take quizzes, and build your own portfolio of IT work in the same place. In addition, you can monitor your progress, see your graded files online, and commu-

nicate with your instructor within the Sandbox. The course lessons themselves contain references to the Sandbox system, so that you can learn by performing tasks that will improve your ability to work effectively within it. Our courses are completely self-contained and personalized for you to practice, make mistakes, and get specialized guidance from your instructor.

Currently, our Sandbox systems consist of the CodeRunner IDE, the IDE used for most open-source languages and system administration; our Eclipse-based Ellipse IDE, used for Java, Python, Android, and DBA technologies; and our special Microsoft Visual Studio Sandbox, used for C# and .NET. We have created these robust, cutting-edge Sandbox applications with these goals in mind:

- **You can learn on your own time.** When you enroll at OST, you are given 24-hour access to your coursework, your Sandbox account, and all the technologies and tools you need. Because instructor communication is asynchronous, you can hand in assignments or ask questions at any time, and your instructor will get back to you as soon as possible. There is no need for you to work around any schedule other than your own, and you can complete your coursework as quickly as you like.





- **You can learn anywhere.** Because our Sandboxes are entirely web-based, you can log in from any browser. All of your files and coursework are stored remotely within your Sandbox portfolio account on our cloud-based network, to be retrieved within the Sandbox or downloaded if you prefer. We strive to make our Sandbox technologies as platform-independent as possible. For example, Windows-based programming projects can be built on a Mac, and Linux system administration can be practiced on a Windows machine. There is no need for you to manage external software or shuffle files between computers.
- **You can get started right away.** Your Sandbox account is created the moment you enroll in and pay for your course; this account contains all of the course content and tools you need in order to start learning and building immediately. There is no need to purchase books or install/configure software for your machine.
- **You can learn using real-world tools to build practical projects.** You become an active participant in your own education the minute your registration is complete. By working on robust projects using the same technologies that are used by developers and employers, you will gain solid and practical experience that has previously been reserved for interns.

OST students come from a wide variety of backgrounds but share a common motivation and passion for learning by making. People who have not yet begun their careers can get the basic skills they need to begin a career in IT. Entry-level workers can update or retool their skill sets. Midcareer and advanced IT professionals can add to the depth of their mastery and enhance their value to clients and employers. Our useractive approach leads to deeper learning than you can gain from videos or textbooks on the same topics. We use your browser to deliver the *actual technology* and supplemental learning tools you need into your learning Sandbox. For the duration of an OST course, you work on a real system in an apprentice-like setting, to create open-ended, real-world projects that can become your own professional-grade portfolio.

## Instructor Communication

Second to you, the most important participant in each OST course is your friendly, qualified instructor, who guides you with feedback, motivation, and encouragement throughout your journey. Your instructor is like a personal tutor or coach, who thoroughly evaluates your quizzes and projects and helps you

with any questions or problems you may have. You will keep in email contact with your instructor throughout your course, and you'll receive timely, ongoing feedback from him/her after submitting any quiz, project, or question.

Your instructor uses an innovative system, similar to your Learning Sandboxes, to evaluate assignments and communicate with students. This advanced system prevents technology from distracting from what is most important—you and the development of your skills. In fact, we examine and monitor every aspect of our instructor qualifications, training, tools, and evaluation methods carefully in order to meet these goals:

- **You will work with a person who knows you.** At OST, you are assigned one instructor who coaches you throughout your course, and often an entire certificate series. You may have daily contact with your instructor if you so choose. Your instructor will be the only person evaluating your assignments and communicating with you about your coursework. By interacting with a single instructor, you are able to build a real relationship with an instructor who is familiar with you and your individual ability. In course-completion surveys, students have consistently cited their instructor relationship as one of the best aspects of their experience.
- **You will master the material through multiple attempts, with feedback.** OST courses are set up using a *unit mastery* model that incorporates *formative assessment* to create a dialog between you and your instructor. In this way, you will receive helpful feedback on your assignments to improve your work until you have a clear understanding of the concept. This means that, rather than multiple choice or canned answer evaluations, you are asked for full explanations of your solutions, in your own voice, and projects that reflect your individuality and problem-solving methods as you fulfill the objectives. Once you pass an assignment, you know you have completely mastered the lesson and have a solid foundation on which to build for the next lesson's challenges.
- **You will enjoy learning.** Children learn by playing, creating, and making mistakes, and they have fun doing so. OST requires you to discover, practice, and create on your own. We aim to bring the joy of learning, typical of childhood, back to you as an adult. Our students tell us routinely that they actually have *fun* completing our courses. As a result of the play and experimentation built into all our classes, you will retain the material better and be ready to apply it immediately.

# General Information

## Certificates of Professional Development

Upon satisfactory completion of all courses in an OST certificate series, you will earn a Certificate of Professional Development. The certificate represents mastery of the associated skill. The work required to earn this certificate, combined with the world-wide recognition of O'Reilly Media as a leader in information technology, ensures that inclusion of this accomplishment on your resumé will have real and significant impact.

Please note that Certificates of Professional Development are not the same as examination-based industry certifications. OST certificates are based on successful completion of a set of fully robust post-secondary education courses, involving the creation of a portfolio of real-world projects and open-ended assignments that are evaluated by an instructor.

When you complete an OST certificate series, be sure to request all of the clock hour letters associated with each of the courses within that series. Once you request all the letters, the corresponding certificate is requested for you automatically. Certificates take additional time to process, so please allow six to eight weeks for your certificate to arrive.

## Book and Library Access

At OST, all course content and curricula are authored and developed by highly qualified experts, designed specifically to facilitate the useractive methodology, and contained within the Learning Sandbox systems that we've created for the particular technology being learned. Each programming course also includes a companion O'Reilly ebook; this is a reference resource that you may access during your coursework and beyond.

Additionally, you will be given special codes that can be used for steep student discounts on all O'Reilly ebooks, print books, and Safari Books Online subscriptions. Safari Books Online is a library subscription service that features an innovative user interface and access to over 16,000 online books and videos from both O'Reilly and Pearson Publishing.

## Student Services

At OST, our top priority is to provide an excellent student experience. We are continually looking for new ways to make your learning experience better and your alumnus experience more successful. As part of this ongoing effort, we currently offer the following student and public services.

## Student Services Currently Offered

- **Portfolio Account:** As an OST student, you are provided with a web-based Sandbox account, in which all of your project files and coursework are stored. You can organize these files however you like; they can be built into an attractive website, complete with a web address that can be presented to clients, employers, or the public as a professional quality display of your new skills. You will retain access to your portfolio account during your entire enrollment agreement.
- **Contact Information:** OST Student Services and your instructor will use your email address to make contact with you. Once you have completed your course or certificate program, your letter or certificate will be sent to your mailing address upon request. If your email or mailing address changes while you are enrolled at OST, you may modify this contact information by following the instructions on your Student Start Page ([oreillyschool.com/student](http://oreillyschool.com/student)).
- **Instructor Recommendation:** OST does not offer career placement services, nor guarantee career placement upon course or certificate program completion. However, students may request a written recommendation upon course completion or certificate program graduation.
- **Academic Advising:** The Academic Director coordinates the team of Student Services personnel, instructors, and other staff to assist you in deciding which course is appropriate for you. Contact the Student Services Department at [info@oreillyschool.com](mailto:info@oreillyschool.com) for assistance.
- **Orientation:** The first lesson in each course serves as an orientation to our useractive constructionist method of learning for your course.
- **Registrar:** The registrar's office processes student records including enrollments, refunds, and issuing clock hour letters and certificates. You may contact the registrar at [info@oreillyschool.com](mailto:info@oreillyschool.com).
- **Disability Services:** OST provides reasonable accommodations to qualified disabled learners on a case-by-case basis. Contact Student Services if you have a special need.
- **Technical Support:** OST provides support for students experiencing technical difficulties with our courses during normal business hours.

## Student Services Not Currently Offered

- **Counseling:** OST does not provide formal career counseling services at this time. However, vocational guidance is provided to students who request assistance.
- **Job Placement:** At this time, OST does not offer career placement services, nor guarantee career placement upon course or certificate program completion.
- **Student IDs:** OST does not issue hard copy student IDs. Your OST identification is in the form of your Sandbox login and online confirmation number.
- **Graduation Ceremony:** OST is not a degree-granting institution and therefore does not conduct graduation ceremonies.
- **Visa Services:** As an online school with no residency requirement, we do not offer visa services.
- **Honor Society:** Because OST courses are all taught using unit mastery, there is no ranking of students and no honor society.

## Public Services

- **Blog:** OST dedicates a portion of its website to a blog in which our directors, faculty, staff, and other thought leaders in education and the IT industry contribute on a regular basis and encourage feedback from students and alumni. Posts in this blog range from in-depth analysis of OST's pedagogical history, to job market snapshots within the IT industry, to outside reviews of OST and calls for suggestions. To see the blog, visit [blog.oreillyschool.com](http://blog.oreillyschool.com).
- **Social Media:** OST has an active and lively presence on several widely used social media platforms, each of which has specific benefits for students:
  - The OST page on Facebook allows students and alumni to interact with each other and with OST faculty and staff, to build community, and to stay informed and current about OST and the world of information technology. Posts range from descriptions of instructors' favorite student projects, to updates on OST's inner workings, to supplemental education materials that can be found on the Internet. [facebook.com/oreillyschool](https://facebook.com/oreillyschool).

- OST's Twitter presence is focused on sharing tips and information about career and skills improvement in the information technology field, as well as wisdom from OST authors, bloggers, leaders in the IT industry, and even Tim O'Reilly himself. All students and alumni are invited to interact directly with OST through our twitter handle, @oreillyschool, or by using the hashtag #oreillyschool during special events, webcasts, or discussions.
- OST's page on LinkedIn provides students and alumni with a valuable professional network that helps them make connections with each other and with other professionals, companies, or employers in the IT field.

## Hours of Operation and Holiday Schedule

Our Student Services are available to answer your questions anytime between 8am – 12pm and 1pm – 5pm Pacific Time, Monday through Friday.

Instructor office hours are by appointment; contact your instructor directly if you wish to schedule an appointment.

The OST offices will be closed during the following U.S. holidays. On those days, Student Services and instructors will not be available.

Wednesday, January 1, 2014	New Year's Day
Monday, January 20	Martin Luther King, Jr. Day
Monday, February 17	Presidents' Day
Monday, May 26	Memorial Day
Friday, July 4	Independence Day
Monday, September 1	Labor Day
Thursday, November 27 to Friday, November 28	Thanksgiving Break
Monday, December 22, 2014 to Thursday, January 1, 2015	Winter Break

# Certificates of Professional Development



## Advanced Java Programming Certificate

The Advanced Java Programming Certificate series is comprised of two courses covering advanced topics in Java including distributed Java applications, data structures and algorithms. All courses are delivered via the Eclipse-based Ellipse learning IDE and require only that you be online and able to use a browser.

Upon completion of this certificate program, you will be able to:

- Apply their modeling skills to represent complicated application domains.
- Design an event-based architecture based on object-oriented analysis and design principles.
- Select appropriate classes from the Java Collections Framework to satisfy functional requirements.

- Explain the reasons for selecting specific data structures or algorithms.
- Develop comprehensive JUnit test cases to validate the domain models.

Upon completion, not only will you have earned an O'Reilly Certificate of Professional Development, but you will also have built a distributed Java system that can be displayed as part of your professional portfolio. The architecture of the system is common to countless domains and can serve as a blueprint for future projects.

**Prerequisites:** *Java 4: Java Application Building*, or equivalent skills. This certificate program is meant for the advanced programmer or IT professional.

<i>Required Courses</i>	<i>Clock-hours</i>	<i>Tuition*</i>
Distributed Java Applications	135	398.00
Data Structures and Algorithms	135	498.00
Registration Fee (Nonrefundable)*		200.00
STRF Fee (Nonrefundable, California residents only) *		0.50
<b>Totals:</b>	<b>270</b>	<b>1096.50</b>

\* The nonrefundable fees shown above are for students enrolling in the entire certificate series all at once. Students enrolling in one course at a time to complete a certificate will pay a registration fee of 20% of the tuition for the course(s) enrolled in, up to \$200 for each enrollment, plus the applicable STRF fee of \$0.50 per \$1000 of tuition and registration fee. See the catalog section on Tuition and Fees for more information.

## Applied Mathematics Certificate

The Applied Mathematics Certificate contains three courses covering post-calculus applied topics such as differential equations, linear algebra, and probability and statistics. All courses are delivered within the Making Math Mathematica-based Hilbert IDE that requires that you only be online and able to use your web browser.

Upon completion of this certificate program, you will be able to:

- Apply the skills gained in freshmen level calculus courses to a robust course in differential equations

- Apply calculus to the statistics and probability of continuous and discrete functions
- Analyze data
- Analyze systems of equations

**Prerequisites:** *MTH 023: Vector Calculus* or equivalent.

<i>Required Courses</i>	<i>Clock-hours</i>	<i>Tuition*</i>
MTH 030: Differential Equations	180	720.00
MTH 040: Applied Linear Algebra	180	720.00
MTH 050: Probability and Statistics	180	720.00
Registration Fee (Nonrefundable)*		200.00
STRF Fee (Nonrefundable, California residents only) *		1.00
<b>Totals:</b>	<b>540</b>	<b>2361.00</b>

\* The nonrefundable fees shown above are for students enrolling in the entire certificate series all at once. Students enrolling in one course at a time to complete a certificate will pay a registration fee of 20% of the tuition for the course(s) enrolled in, up to \$200 for each enrollment, plus the applicable STRF fee of \$0.50 per \$1000 of tuition and registration fee. See the catalog section on Tuition and Fees for more information.

## Calculus Certificate

The Calculus Certificate contains four courses covering all of the topics of the first two years of university-level calculus. Learners will engage in hands-on applied topics from single and multivariable variable derivative and integrals, power series, through advanced topics in vector calculus. All courses are delivered within the Making Math Mathematica-based Hilbert IDE that requires that you only be online and able to use your web browser.

Upon completion of this certificate program, you will be able to:

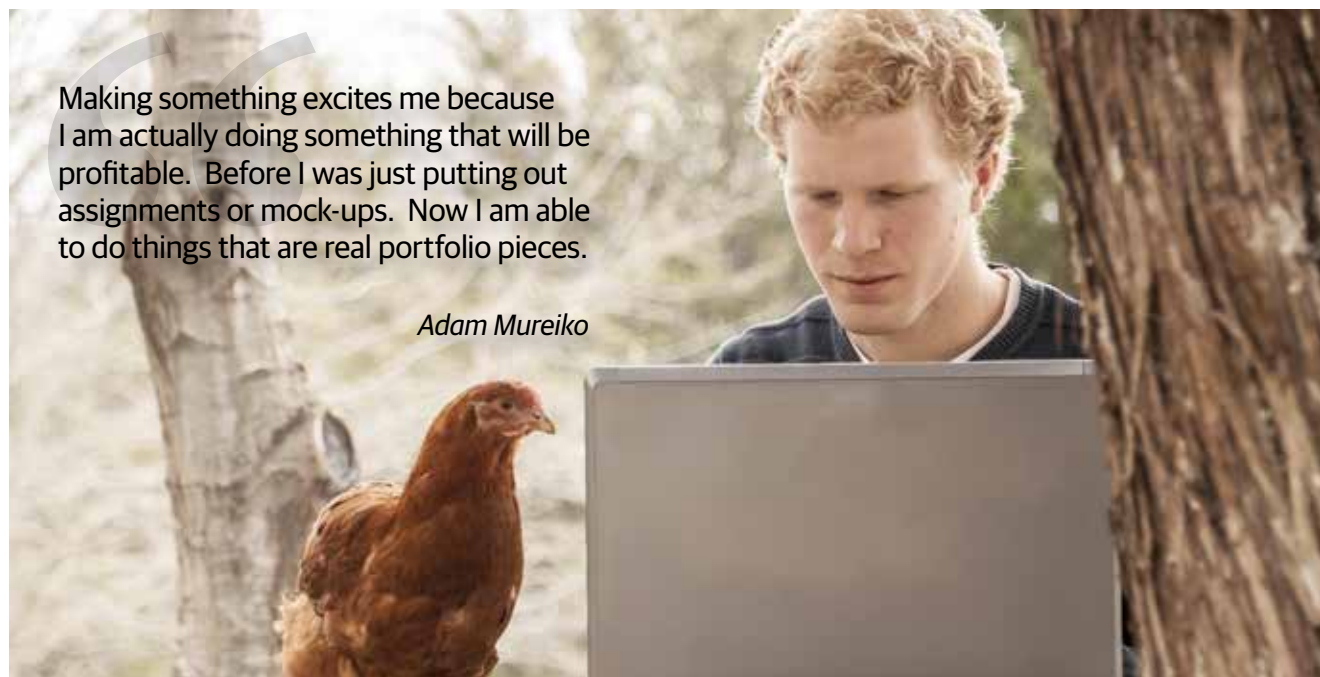
- Explain and apply the rules of 2D and 3D derivatives and integrals

- Solve basic differential equations
- Analyze data using calculus
- Use power series to approximate functions
- Apply calculus to vector-valued functions
- Solve problems in multivariable calculus using the Gauss-Green Theorem and Stokes' Theorem

**Prerequisites:** *MTH 010: Math Before Calculus* or an equivalent pre-calculus course. Learners should have also taken two years of high school level algebra and one year of geometry.

<i>Required Courses</i>	<i>Clock-hours</i>	<i>Tuition*</i>
MTH 020: Calculus 1: Derivatives	135	540.00
MTH 021: Calculus 2: Integrals	135	540.00
MTH 022: Calculus 3: Power Series	90	360.00
MTH 023: Vector Calculus	180	720.00
Registration Fee (Nonrefundable)*		200.00
STRF Fee (Nonrefundable, California residents only) *		1.00
<b>Totals:</b>	<b>540</b>	<b>2361.00</b>

\* The nonrefundable fees shown above are for students enrolling in the entire certificate series all at once. Students enrolling in one course at a time to complete a certificate will pay a registration fee of 20% of the tuition for the course(s) enrolled in, up to \$200 for each enrollment, plus the applicable STRF fee of \$0.50 per \$1000 of tuition and registration fee. See the catalog section on Tuition and Fees for more information.



Making something excites me because I am actually doing something that will be profitable. Before I was just putting out assignments or mock-ups. Now I am able to do things that are real portfolio pieces.

*Adam Mureiko*



## Client-Side Programming Certificate

The Client-Side Web Programming certificate series is comprised of three courses, covering beginning to advanced front-end web development using HTML, CSS, and JavaScript. All courses are delivered via the *CodeRunner* IDE and require only that you be online and able to use a browser.

Upon completion of this certificate program, you will be able to:

- Create fundamental HTML elements and attributes including links, images, tables, forms, spans, and divs, as well as some of the newer HTML elements like sections and articles.
- Utilize Cascading Style Sheets (CSS) to control the look and placement of elements.
- Utilize JavaScript and the Document Object Model (DOM) to add and remove elements, create functions and events to respond to user input, and validate forms.
- Use JSON to serialize data for storage in the browser or on the server.

- Store and retrieve data using Ajax and LocalStorage.
- Optimize your DOM manipulation code with document fragments.
- Use strings and dates more effectively in your code.
- Catch errors with exceptions.
- Add location and maps to your applications with geolocation and Google Maps.
- Modularize your code with Modernizr.

This series will give you the skills and experience needed to create rich user experiences on the Web, from beginning HTML to web services. Upon completion, not only will you have earned clock hours and a Certificate of Professional Development, but you will also have built an attractive, robust website that can be displayed as part of your professional portfolio.

**Prerequisites:** No prerequisite skills or programming experience are required.

<i>Required Courses</i>	<i>Clock-hours</i>	<i>Tuition*</i>
Introduction to HTML and CSS	90	448.00
Modern JavaScript: An Introduction	90	448.00
JavaScript: JSON and Ajax	90	448.00
Registration Fee (Nonrefundable) *		200.00
STRF Fee (Nonrefundable, California residents only) *		1.00
<b>Totals:</b>	<b>270</b>	<b>1545.00</b>

\* The nonrefundable fees shown above are for students enrolling in the entire certificate series all at once. Students enrolling in one course at a time to complete a certificate will pay a registration fee of 20% of the tuition for the course(s) enrolled in, up to \$200 for each enrollment, plus the applicable STRF fee of \$0.50 per \$1000 of tuition and registration fee. See the catalog section on Tuition and Fees for more information.



## C#.NET Programming Certificate

The C#.NET Programming certificate series consists of four courses covering basic to complex programming in C# and utilizing the .NET framework within the Visual Studio platform. Courses are delivered using a special Visual Studio Integrated Development Environment (IDE) and require only that you be online and able to use a browser.

Upon completion of this certificate program, you will be able to:

- Demonstrate proficiency using Visual Studio, the most popular IDE from Microsoft.
- Demonstrate understanding of the C# language, classes, and object orientation.
- Create Graphical User Interfaces (GUIs) using .NET base class libraries, XAML, WPF, and XML.
- Build complex C#.NET applications using classes, objects, methods, and constructors.
- Employ authentication and authorization techniques to control access to your websites.

- Use test-driven development methodologies to guide functional development and testing scenarios.
- Use Object Relational Mapping and methodologies to accelerate flexible code development.
- Use LINQ and other techniques for in-code data query and management.
- Utilize interfaces and extension methods to create more adaptable code.

Upon completion, not only will you have earned clock hours and a Certificate of Professional Development, but you will also have created several complex .NET applications that can be displayed in a professional portfolio, and you will have substantial experience programming in an object-oriented language.

**Prerequisites:** You must have basic skills in object-oriented programming in order to complete this series. You can meet this prerequisite by completing the OST course *Introduction to Object-Oriented Programming* or *Modern JavaScript: An Introduction*.

<i>Required Courses</i>	<i>Clock-hours</i>	<i>Tuition*</i>
C#.NET 1: Introduction to Object Oriented Programming using C#	90	498.00
C#.NET 2: C# Programming in the .NET Framework	90	498.00
C#.NET 3: Advanced C# Programming	90	498.00
C#.NET 4: User Interface Design Using C#, XAML and WPF	90	498.00
Registration Fee (Nonrefundable) *		200.00
STRF Fee (Nonrefundable, California residents only) *		1.00
<b>Totals:</b>	<b>360</b>	<b>2193.00</b>

\* The nonrefundable fees shown above are for students enrolling in the entire certificate series all at once. Students enrolling in one course at a time to complete a certificate will pay a registration fee of 20% of the tuition for the course(s) enrolled in, up to \$200 for each enrollment, plus the applicable STRF fee of \$0.50 per \$1000 of tuition and registration fee. See the catalog section on Tuition and Fees for more information.

## Database Administration Certificate

The Database Administration certificate series is comprised of four courses covering the SQL language, database administration techniques, and data warehousing. Courses are delivered using both the *CodeRunner* and Eclipse-based *Talend Open Studio* and require only that you be online and able to use a browser. You will use *Talend Open Studio* to build the data warehouse.

Upon completion of this certificate program, you will be able to:

- Write complex SQL queries to manage data and report on it in a variety of ways.
- Create, back up, restore, optimize databases, and analyze database performance problems.

- Analyze data-related business questions in order to create a data warehouse from scratch.
- Query a data warehouse in order to answer common business questions.

This series will enable you to garner the skills, experience, and confidence needed to build, administer, and analyze large-scale database systems. Upon completion, not only will you have earned clock hours and a Certificate of Professional Development, but you will also have built a complex data warehouse that can be displayed as part of your professional portfolio.

**Prerequisites:** No prerequisite skills or programming experience are required.

<i>Required Courses</i>	<i>Clock-hours</i>	<i>Tuition*</i>
DBA 1: Introduction to Database Administration	90	398.00
DBA 2: Administering MySQL	90	398.00
DBA 3: Creating a Data Warehouse	135	448.00
DBA 4: Analyzing Data	135	448.00
Registration Fee (Nonrefundable) *		200.00
STRF Fee (Nonrefundable, California residents only) *		1.00
<b>Totals:</b>	<b>450</b>	<b>1893.00</b>

\* The nonrefundable fees shown above are for students enrolling in the entire certificate series all at once. Students enrolling in one course at a time to complete a certificate will pay a registration fee of 20% of the tuition for the course(s) enrolled in, up to \$200 for each enrollment, plus the applicable STRF fee of \$0.50 per \$1000 of tuition and registration fee. See the catalog section on Tuition and Fees for more information.



I remember the [O'Reilly] books from college being the authoritative source on how to understand how all of this technology works.

*John Davidson*

## Java Programming Certificate

The Java Programming certificate series is comprised of four courses covering beginning to advanced Java and object-oriented programming concepts, as well as skills using the Eclipse open-source Integrated Development Environment (IDE). All courses are delivered via the Eclipse-based *Ellipse* learning IDE and require only that you be online and able to use a browser.

Upon completion of this certificate program, you will be able to:

- Build Java code that exemplifies the fundamental concepts of object-oriented design, including classes, methods, scope, and inheritance.
- Create applications in Java that interact with databases, and use concurrency, interactive GUI (Graphical User Interface), I/O, and sockets.

- Develop Java-based software using the Eclipse open-source IDE.
- Demonstrate understanding of classes within the Java API.
- Demonstrate understanding of generics and collections.
- Apply professional standards such as error checking, exception handling, and documentation to Java software.

Upon completion, not only will you have earned a Certificate of Professional Development, but you will also have built several robust Java applications that can be displayed as part of your professional portfolio.

**Prerequisites:** You must have basic skills in object-oriented programming in order to complete this series. You can meet this prerequisite by completing the OST course *Introduction to Object-Oriented Programming* or *Modern JavaScript: An Introduction*.

<i>Required Courses</i>	<i>Clock-hours</i>	<i>Tuition*</i>
Java 1: Introduction to Java and the Eclipse Development Environment	90	398.00
Java 2: The Java Programming Language	90	398.00
Java 3: Java Programming Foundations	90	398.00
Java 4: Java Application Building	90	398.00
Registration Fee (Nonrefundable) *		200.00
STRF Fee (Nonrefundable, California residents only) *		1.00
<b>Totals:</b>	<b>360</b>	<b>1793.00</b>

\* The nonrefundable fees shown above are for students enrolling in the entire certificate series all at once. Students enrolling in one course at a time to complete a certificate will pay a registration fee of 20% of the tuition for the course(s) enrolled in, up to \$200 for each enrollment, plus the applicable STRF fee of \$0.50 per \$1000 of tuition and registration fee. See the catalog section on Tuition and Fees for more information.

## JavaScript Programming Certificate

The JavaScript Programming Certificate series is comprised of three courses covering beginning to advanced JavaScript web development using JavaScript. All courses are delivered via the *CodeRunner* IDE and require only that you be online and able to use a browser.

Upon completion of this certificate program, you will be able to:

- Hand-code JavaScript.
- Maintain and develop JavaScript on existing websites.
- Use JSON to serialize data for storage in the browser or on the server.

- Store and retrieve data using Ajax.
- Add, change, and remove elements and style to and from a web page, dynamically.
- Use JavaScript to retrieve and validate values entered into a form.

Upon completion, not only will you have earned a Certificate of Professional Development, but you will also have built several JavaScript applications that can be displayed as part of your professional portfolio.

**Prerequisites:** *Introduction to HTML and CSS*

<i>Required Courses</i>	<i>Clock-hours</i>	<i>Tuition*</i>
Modern JavaScript: An Introduction	90	448.00
JavaScript: AJAX and JSON	90	448.00
Advanced JavaScript Essentials	90	448.00
Registration Fee (Nonrefundable)*		200.00
STRF Fee (Nonrefundable, California residents only) *		0.50
<b>Totals:</b>	<b>270</b>	<b>1544.50 (plus fees)</b>

\* The nonrefundable fees shown above are for students enrolling in the entire certificate series all at once. Students enrolling in one course at a time to complete a certificate will pay a registration fee of 20% of the tuition for the course(s) enrolled in, up to \$200 for each enrollment, plus the applicable STRF fee of \$0.50 per \$1000 of tuition and registration fee. See the catalog section on Tuition and Fees for more information.

## Linux Systems Administration Certificate

The Linux Systems Administration certificate series is comprised of four courses that cover basic Linux system administration. Students access real Redhat Linux systems provided by OST on which they have root privileges. All courses are delivered via the *CodeRunner* learning IDE and require only that you be online and able to use a browser.

Upon completion of this certificate program, you will be able to:

- Navigate the Linux file system and assign permissions to files and directories.
- Demonstrate how to use find, grep, and regular expressions to search files and directories.
- Install SSH and use SCP.
- Create and manage system users.
- Configure an Ethernet device and DNS service from scratch.

- Configure email, including mail transport agents, local delivery agents, and server-side filtering.
- Install your own Apache web server and configure it so that it can run in conjunction with PHP and a relational database.
- Create scripts to perform basic system administration tasks to run commands, manipulate files, and rotate log files.

This series will enable you to garner the skills, experience, and confidence needed to build, network, maintain, and automate complex Linux or Unix based systems. Upon completion, not only will you have earned clock hours and a Certificate of Professional Development, but you will also have built your very own server network as part of your professional portfolio.

**Prerequisites:** No prerequisite skills or programming experience are required.

<i>Required Courses</i>	<i>Clock-hours</i>	<i>Tuition</i>
Linux System Administration 1: The Command Line	90	398.00
Linux System Administration 2: Networking and Package Management	90	398.00
Linux System Administration 3: Services	90	398.00
Linux System Administration 4: Sed, Awk, and Perl	90	398.00
Registration Fee (Nonrefundable) *		200.00
STRF Fee (Nonrefundable, California residents only) *		1.00
<b>Totals:</b>	<b>360</b>	<b>1793.00</b>

\* The nonrefundable fees shown above are for students enrolling in the entire certificate series all at once. Students enrolling in one course at a time to complete a certificate will pay a registration fee of 20% of the tuition for the course(s) enrolled in, up to \$200 for each enrollment, plus the applicable STRF fee of \$0.50 per \$1000 of tuition and registration fee. See the catalog section on Tuition and Fees for more information.

## Open Source Programming Certificate

The Open Source Programming certificate series is comprised of five courses covering intermediate to advanced topics in open source programming using Perl, Python, PHP, SQL, and Linux. All courses are delivered via the *CodeRunner* IDE and require only that you be online and able to use a browser.

Upon completion of this certificate program, you will be able to:

- Develop Perl scripts that use variables, conditionals, interpolation, arrays, lists, hashes, subroutines, loops, formatted printing, data mapping, and sorting.
- Implement Perl scripts that work with external files.
- Design PHP scripts that use variables, operators, control structures, loops, arrays, strings, functions, cookies, and sessions.
- Create PHP scripts that obtain input from the user and interact with a database.
- Apply basic database theory to design a relational SQL database and SQL tables, and to create complex queries.

- Develop Python scripts that use expressions, variables, conditionals, loops, lists, sets, dicts, functions, objects, and exceptions.
- Navigate the Linux file system and assign permissions to files and directories.
- Use find, grep, and regular expressions to search files and directories.
- Install SSH and use SCP.
- Create and manage system users.

Upon completion, not only will you have earned clock hours and a Certificate of Professional Development, but you will also have built attractive, robust web interfaces and database applications that can be displayed as part of your professional portfolio.

**Prerequisites:** You must have basic skills in web design using HTML and CSS in order to complete this series. You can meet this prerequisite by completing the OST course *Introduction to HTML and CSS*.

<i>Required Courses</i>	<i>Clock-hours</i>	<i>Tuition</i>
Perl 1: Introduction to Perl	60	448.00
Python 1: Beginning Python	90	498.00
Linux Systems Administration 1: The Command Line	90	398.00
Introduction to PHP	90	398.00
PHP/SQL 1: Introduction to Database Programming	90	398.00
Registration Fee (Nonrefundable) *		200.00
STRF Fee (Nonrefundable, California residents only) *		1.00
<b>Totals:</b>	<b>420</b>	<b>2341.00</b>

\* The nonrefundable fees shown above are for students enrolling in the entire certificate series all at once. Students enrolling in one course at a time to complete a certificate will pay a registration fee of 20% of the tuition for the course(s) enrolled in, up to \$200 for each enrollment, plus the applicable STRF fee of \$0.50 per \$1000 of tuition and registration fee. See the catalog section on Tuition and Fees for more information.

## Perl Programming Certificate

The Perl Programming certificate series comprises four courses that take students from a beginner to an advanced level that includes use of reusable code and creation of objects for network-based applications. All courses are delivered via the *CodeRunner* learning IDE and require only that you be online and able to use a browser.

Upon completion of this certificate program, you will be able to:

- Create Perl scripts that use variables, conditionals, interpolation, arrays, lists, hashes, subroutines, loops, formatted printing, data mapping, and sorting.
- Implement Perl scripts that work with external files.
- Utilize regular expressions, exception handling, multiprocessing, objects, and complex data structures.

- Develop applications that perform complex text processing, web page scraping and form handling, and database interaction.
- Navigate third-party code in the Comprehensive Perl Archive Network (CPAN) and use it in your own applications.

Upon completion, you will have earned clock hours and a Certificate of Professional Development, and you will have built large-scale web interfaces and database applications in Perl that can be displayed as part of your professional portfolio.

**Prerequisites:** No prerequisite skills or programming experience are required.

<i>Required Courses</i>	<i>Clock-hours</i>	<i>Tuition</i>
Perl 1: Introduction to Perl	60	448.00
Perl 2: Intermediate Perl	60	448.00
Perl 3: Advanced Perl	60	448.00
Perl 4: Applied Perl	60	448.00
Registration Fee (Nonrefundable) *		200.00
STRF Fee (Nonrefundable, California residents only) *		1.00
<b>Totals:</b>	<b>240</b>	<b>1993.00</b>

\* The nonrefundable fees shown above are for students enrolling in the entire certificate series all at once. Students enrolling in one course at a time to complete a certificate will pay a registration fee of 20% of the tuition for the course(s) enrolled in, up to \$200 for each enrollment, plus the applicable STRF fee of \$0.50 per \$1000 of tuition and registration fee. See the catalog section on Tuition and Fees for more information.



## PHP/SQL Programming Certificate

The PHP/SQL Programming certificate series is comprised of four courses covering beginning to advanced PHP and SQL. It includes core technical and theoretical skills necessary for an understanding of database programming using the open-source LAMP (Linux, Apache, MySQL, PHP) framework and web design patterns. All courses are delivered via the *CodeRunner* IDE and require only that you be online and able to use a browser.

Upon completion of this certificate program, you will be able to:

- Create PHP scripts that use variables, operators, control structures, loops, arrays, strings, functions, cookies, and sessions.
- Build and manage SQL databases and tables.
- Create complex SQL queries to interact with the database using PHP scripts.

- Apply advanced database theory, design, optimization, and security to design relational SQL databases and PHP scripts.
- Create a social networking site.
- Use object-oriented PHP to create a social bookmarking site.

Upon completion, not only will you have earned clock hours and a Certificate of Professional Development, but you will also have built complex web interfaces, large-scale database applications, RSS-based web services, and entire social media websites that can be displayed as part of your professional portfolio.

**Prerequisites:** You must have basic skills in web design using HTML and CSS in order to complete this series. You can meet this prerequisite by completing the OST course *Introduction to HTML and CSS*.

<i>Required Courses</i>	<i>Clock-hours</i>	<i>Tuition</i>
Introduction to PHP	90	398.00
PHP/SQL 1: Introduction to Database Programming	90	398.00
PHP/SQL 2: Relational Theory and Logical Design	90	398.00
PHP/SQL 3: Seamless Web 2.0 Integration	90	398.00
Registration Fee (Nonrefundable) *		200.00
STRF Fee (Nonrefundable, California residents only) *		1.00
<b>Totals:</b>	<b>360</b>	<b>1793.00</b>

\* The nonrefundable fees shown above are for students enrolling in the entire certificate series all at once. Students enrolling in one course at a time to complete a certificate will pay a registration fee of 20% of the tuition for the course(s) enrolled in, up to \$200 for each enrollment, plus the applicable STRF fee of \$0.50 per \$1000 of tuition and registration fee. See the catalog section on Tuition and Fees for more information.

## Python Programming Certificate

The Python Programming certificate series is comprised of four courses covering beginning to advanced Python using Test-Driven Development. Courses are delivered using both the *CodeRunner* and Eclipse-based *Ellipse* learning Integrated Development Environment (IDE) and require only that you be online and able to use a browser.

Upon completion of this certificate program, you will be able to:

- Create Python scripts that use expressions, variables, conditionals, loops, lists, sets, dicts, functions, objects and exception handling.
- Develop Python applications that utilize file handling, pickling, and archiving (zip and tar).
- Utilize Python to interact with SQL databases.
- Implement email objects.

- Utilize profiling to describe run-time performance of your programs and learn how to optimize your code.
- Create/develop generators and decorators.
- Utilize introspection, multi-threading, and multi-processing techniques.

Upon completion, not only will you have earned clock hours and a Certificate of Professional Development, but you will also have built large-scale web interfaces and database applications in Python that can be displayed as part of your professional portfolio.

**Prerequisites:** No prerequisite skills or programming experience are required.

<i>Required Courses</i>	<i>Clock-hours</i>	<i>Tuition</i>
Python 1: Beginning Python	90	498.00
Python 2: Getting More Out of Python	90	498.00
Python 3: The Python Environment	90	498.00
Python 4: Advanced Python	90	498.00
Registration Fee (Nonrefundable) *		200.00
STRF Fee (Nonrefundable, California residents only) *		1.00
<b>Totals:</b>	<b>360</b>	<b>2193.00</b>

\* The nonrefundable fees shown above are for students enrolling in the entire certificate series all at once. Students enrolling in one course at a time to complete a certificate will pay a registration fee of 20% of the tuition for the course(s) enrolled in, up to \$200 for each enrollment, plus the applicable STRF fee of \$0.50 per \$1000 of tuition and registration fee. See the catalog section on Tuition and Fees for more information.



## Web Programming Certificate

The Web Programming certificate series is comprised of six courses covering web programming, web administration, and website development using HTML, CSS, JavaScript, XML, PHP, SQL, UNIX, and Apache. All courses are delivered via the *CodeRunner* learning IDE and require only that you be online and able to use a browser.

Upon completion of this certificate program, you will be able to:

- Create fundamental HTML elements and attributes including links, images, tables, forms, spans and divs, as well as new HTML elements like sections and articles.
- Utilize Cascading Style Sheets (CSS) to control the look and placement of elements.
- Utilize JavaScript and the Document Object Model (DOM) to add and remove elements, create functions and events to respond to user input, and validate forms.
- Develop XML projects that use DTDs, schemas, XSL, and XPath.

- Create PHP scripts that use variables, operators, control structures, loops, arrays, strings, functions, cookies, and sessions.
- Create PHP scripts that obtain input from the user and interact with a database.
- Use basic database theory to design a relational SQL database and SQL tables, and to create complex queries.
- Execute basic UNIX commands, including those necessary for file and directory navigation, manipulation, and permissions.
- Install your own Apache web server using real Redhat Linux Systems provided by OST.

Upon completion, you will have earned clock hours and a Certificate of Professional Development. You will also have access to the attractive websites and robust database applications that you've built and will be able to display as part of your professional portfolio.

**Prerequisites:** No prerequisite skills or programming experience are required.

<i>Required Courses</i>	<i>Clock-hours</i>	<i>Tuition</i>
Introduction to HTML and CSS	90	448.00
JavaScript 1: An Introduction to Modern JavaScript	90	448.00
Introduction to XML	60	398.00
Introduction to PHP	90	398.00
PHP/SQL 1: Introduction to Database Programming	90	398.00
Unix for Web Programming	30	198.00
Registration Fee (Nonrefundable) *		200.00
STRF Fee (Nonrefundable, California residents only) *		1.00
<b>Totals:</b>	<b>450</b>	<b>2489.00</b>

\* The nonrefundable fees shown above are for students enrolling in the entire certificate series all at once. Students enrolling in one course at a time to complete a certificate will pay a registration fee of 20% of the tuition for the course(s) enrolled in, up to \$200 for each enrollment, plus the applicable STRF fee of \$0.50 per \$1000 of tuition and registration fee. See the catalog section on Tuition and Fees for more information.

# Requirements

## Admission Requirements

OST has an open admissions policy. To enroll in our courses, you need to:

- Be able to use a browser and email proficiently.
- Read and write English fluently.
- Possess a high school diploma, GED, or equivalent.
- Complete an online application and sign an Enrollment Agreement, which outlines the terms of the enrollment and financial obligations for the course/program.
- Submit the registration fee and tuition for your course(s).
- Be self-motivated and ready to learn by experimentation and creation.

Exceptions to these requirements are explained in detail in the Academic Policies section of this catalog. Due to the professional development nature of our courses, there are no GPA requirements for admission to OST courses. However, admission and continuation of any student is entirely at the discretion of OST, and may be refused at any time.

## Nondiscrimination Policy

OST welcomes all adult students meeting the admissions requirements and does not discriminate on the basis of race, color, ancestry, age, marital status, political affiliation, sexual orientation, veteran status, national origin, religion, handicap, or sex in any of the policies, practices, or procedures involving applicants, students, faculty, employees, and the public. Please note, however, OST reserves the right to refuse admission to anyone the school believes does not meet the academic standards for admission.

## Registration

OST's registration service is provided through our website at [oreillyschool.com](http://oreillyschool.com). To register, click the "Enroll" link on the website, and it will take you through our online enrollment process. OST has a rolling enrollment process, so you may register, enroll, and start your program at any time. The start date of your enrollment period is the date your enrollment is paid and you are admitted by OST into your courses or program. The end date of your enrollment period is 6 months from the start date for enrollment in one or more courses, and 12 months from the start date if enrolling in an entire certificate program at one time.

## Notification of Acceptance/Denial of Admission

Once you satisfy the requirements for admission, you will immediately be accepted for admission and granted access to your courses. Notification of acceptance is sent via an email from Student Services containing your login information and instructions on how to begin your coursework.

Students who do not meet the admissions requirements or who have prior academic integrity violations will not be accepted for admission, and registration will be denied.

## Technical Requirements

When building and continually improving our Learning Sandbox systems, we do everything in our power to make them as platform-independent as possible. This table lists the current technical requirements for all OST courses:

Operating System:	Windows XP or newer, MacOS 10.4 or newer. Linux RedHat and Debian ok (see below).
Internet Connection:	Any internet connection will suffice.
Browser:	Firefox 3.xx, Safari 3.xx, or Internet Explorer 7.xx, or newer. Popup windows and cookies must be enabled in your web browser. Your browser must also support Java applets.
Note:	Students have success using the Linux operating system and Mozilla on a variety of platforms, such as RedHat and Debian. If you use a lesser-known flavor of Linux, be sure to try out the Learning Sandbox thoroughly to make sure it works for you. If it doesn't, simply let us know within the first 7 days of enrollment for a full refund.

## Student Identity Verification

OST's student identity verification procedures are designed to assure that the student who earned the credit or completion document is the same student who completed the course assignments and assessments. Enrollment requires confirmation of name, address, and the CCID (security code) on the holder's card. Providing this information constitutes an electronic signature that confirms your identity and consent to the terms of your Enrollment Agreement. If you are paying by invoice or a third-party payer, you will be required to provide a copy of government-issued photo identification.

*When enrolling in courses or programs through OST's online enrollment form, you will be asked to provide security questions and answers, in the same way an online banking interface does. Once admitted, you will be asked upon login to the Student Start Page to provide the answers to a randomly chosen security question in addition to your login information. If answered correctly, the new IP Address is registered in our database, and the security questions are not asked until you use a new unregistered IP Address to login to your coursework. Students found to be in violation of OST's student identity policy will be subject to immediate dismissal.*

## Completing Coursework Requirements

To successfully complete a course, you must successfully complete every open-ended quiz and project within the course. For details on how assignments are graded, see the section of the catalog titled "Grading Policies and Procedures." Once you have completed all of the required quizzes and projects for your course and your end of course survey, you will be able to request a letter for the clock hours you have earned in the course. You may request the letter be sent to you from your Student Start Page ([oreillyschool.com/student](http://oreillyschool.com/student)) once you have successfully completed your course.

Once you complete all of the courses required for a certificate and have requested all of the clock hour letters, your certificate will be sent to you automatically. You may be asked to complete a short survey after completion of each course.

## Time and Residence Requirements

OST uses a rolling admissions process, which allows you to register and begin courses or certificate programs at any time. All programs are self-paced, which means that within your enrollment agreement period, you can advance and complete your programs as rapidly as your own schedule and ability permit.

We have calculated the number of student clock-hours we anticipate it will take to complete each course; most OST courses will take between 30 and 135 clock-hours each. You may require more or less time than posted for a course, but generally speaking, you should plan to spend the estimated clock-hours in order to complete each course and certificate series.

You are given up to 6 months to complete courses when you enroll in one at a time. You may of course complete them faster if you like. If you enroll in all courses within a certificate series in one transaction, you are given a 12-month enrollment period in which to complete those courses, sequentially.

OST students are not obliged to fulfill any classroom attendance or on-campus residence requirements as they might at a traditional institution of higher learning. You will complete all of your course requirements online, using the appropriate Learning Sandbox technology through your web browser, under the guidance and supervision of your instructor.

## Prerequisites and Credit Transfers

Courses in our catalog may list prerequisite skills that you will need in order to be successful in that course. The prerequisite skills may often be attained by completing a corresponding OST course. If you certify during enrollment that you already have the prerequisite skills needed for a course, it is not necessary for you to prove those skills before enrolling in that course. However, if you or your instructor find that your current skills are not sufficient to make progress in the course, you may be asked to withdraw and re-enroll in the prerequisite course.

If you are pursuing a Certificate of Professional Development, you must successfully complete all courses within that certificate series, regardless of prerequisite skills you may already have mastered. OST is unable to accept transfer or experiential credit for certificate programs.

## Notice Concerning Transferability of Credits and Credentials Earned at Our Institution

The transferability of credits you earn at OST is at the complete discretion of an institution to which you may seek to transfer. Acceptance of the certificate and/or Clock Hours you earn in this educational program is also at the complete discretion of the institution to which you may seek to transfer. If the certificate and/or Clock Hours that you earn at this institution are not accepted at the institution to which you seek to transfer, you may be required to repeat some or all of your coursework at that institution. For this reason, you should verify that your attendance at this institution will meet your educational goals. This may include contacting an institution to which you may seek to transfer after attending OST to determine if your certificate and/or Clock Hours will transfer.

# Tuition and Fees

## Tuition

Tuition is on a per-course basis, currently ranging from \$198 to \$720 per course. Tuition for each course must be paid in full before enrollment is fully activated.

- If paid by credit card via OST's web-based enrollment system, the enrollment is processed immediately, and you may begin work on the course right away.
- If paid by check, wire transfer, or money order, the enrollment will be processed and courses may be started once payment is received in full.

If pursuing a Certificate of Professional Development, you may pay tuition for all courses at one time, in which case all courses will be made available for completion immediately. Alternatively, each course within the certificate series may be taken individually as a single course, which allows the student the flexibility to pay for courses one at a time.

## Payment Options

When enrolling in courses or programs, all tuition and registration fees must be collected before you are able to complete the admissions process. There are several ways you may submit payment:

- **Payment via credit card.** OST accepts Visa, MasterCard, American Express, and Discover, through a secure SSL connection, using the PCI-Compliant Braintree Payment Processor. You may enter your credit card information through our secure online enrollment form. You will be directed to an electronic version of the Enrollment Agreement and school performance fact sheet, which you will need to sign and submit electronically. If you pay in this manner and meet all the admissions requirements, your courses or programs will become immediately available to you.
- **Payment via invoice.** If you pay by invoice, you will need to download and print out PDF versions of the Enrollment Agreement and invoice presented to you in the online enrollment form. Using this method, your registration will be listed as "pending," and the admissions process will not be complete until OST receives and processes your payment and supporting documentation. When you choose the invoice method of payment, the invoice may also be paid in several ways:
  - **Check, Money Order, or Cashier's Check.** Any of these forms of payment is acceptable only if sent by a financial

institution that is recognized as valid in the U.S. and written in the form of U.S. dollars. Payment must be made out to "O'Reilly School of Technology" and sent for the total amount of the OST invoice presented by the enrollment interface, along with a hard copy of the invoice, all signed agreements, and any required supporting documentation, to the following address:

O'Reilly School of Technology  
Attn: OST Billing  
1005 Gravenstein Hwy N.  
Sebastopol, CA 95472 USA

- **Purchase Order.** Some organizations require a purchase order (P.O.) to be produced before payment can be remitted. In this case, the enrollment interface contains a feature that allows you to add a purchase order number to the online invoice. You will be responsible for the creation of the P.O. at your organization, the addition of the P.O. number to the OST invoice, and follow-through with company payment. However, our Student Services personnel are happy to assist you and/or your manager or other organizational staff in this process. OST will not process your enrollment until full payment and all required admissions documents are received and processed using the same procedures as those for checks, money orders, or cashier's checks.
- **Wire Transfer.** This form of payment is acceptable only if sent by a financial institution that is recognized as valid in the U.S. and in the form of either U.S. dollars or a currency that can be converted to U.S. dollars automatically during the transfer process. Also, the transfer amount must be sufficient to cover any external wire transfer fees, in addition to the total amount listed in the OST invoice. If you wish to use this method of payment, you must contact our Student Services team via email or phone. The Student Services team member will then provide the wire transfer information and instructions. Your enrollment will be considered "pending" until full payment is received and processed by OST.
- **Credit Card.** As an alternative to the methods listed above, you can complete your admissions process online via credit card payment. Because you are provided access to the Student Start Page upon registration and pending enrollment, you may utilize that web-based interface to view your invoice and enrollment agreements online. If you wish,

you can then electronically sign the Enrollment Agreement and student performance fact sheet, and pay the invoice via credit card, using the same online verification procedures that would have been used had you originally chosen the credit card form of payment during the enrollment process. If you pay in this manner and meet all the admissions requirements, your courses or programs will become immediately available to you.

**NOTICE:** OST does not offer payment plans for tuition.

## Discounts

From time to time, OST offers a limited-time discount on tuition for some courses. When offered, these discounts are available to everyone and are published on the OST website with specific start and end dates.

## Past-Due Obligations

Since students are not admitted into OST courses or programs until after full payment is received, there are no past-due obligations.

## Additional Mandatory and Optional Nonrefundable Fees

**Mandatory Registration Fee:** Upon enrollment in one or more courses, you will be charged an additional mandatory non-refundable registration fee after seven days. The fee amount will total 20% of tuition, up to no more than \$200 per transaction. This fee takes care of administrative costs for the duration of the enrollment period.

### California Mandatory Student Tuition Recovery Fund (STRF)

**Fee:** If you are a California resident as defined in the below Student Tuition Recovery Fund section, you may be assessed a mandatory state STRF fee of \$.50 per \$1,000 of institutional charges. This fee is nonrefundable after seven days. You must pay the state-imposed assessment for the Student Tuition Recovery Fund (STRF) if all of the following applies to you:

1. You are a student in an educational program, who is a California resident, or are enrolled in a residency program, and prepay all or part of your tuition either by cash, guaranteed student loans, or personal loans, and
2. Your total charges are not paid by any third-party payer such as an employer, government program, or other payer unless you have a separate agreement to repay the third party.

You are not eligible for protection from the STRF and you are not required to pay the STRF assessment, if either of the following applies:

1. You are not a California resident, or are not enrolled in a residency program, or
2. Your total charges are paid by a third party, such as an employer, government program, or other payer, and you have no separate agreement to repay the third party.

## Optional Fees

**Online Library Fee:** As an OST student, you may choose to purchase access to OST's Library service, Safari Books Online, at a 30% discount after the first seven days of your enrollment. The discounted fee for choosing this optional service is \$19.95 per month (discounted from \$27.99 per month) for ten books and videos per month or \$30.09 per month (discounted from \$42.99 per month) on unlimited books and videos per month. The use of Safari Books Online is purely optional and is nonrefundable.

**NOTICE:** All tuition and fee amounts are subject to change without notice.

## Student Tuition Recovery Fund (STRF)

The State of California created the Student Tuition Recovery Fund (STRF) to relieve or mitigate economic losses suffered by students in educational programs who are California residents, or are enrolled in residency programs attending certain schools regulated by the Bureau for Private Postsecondary Education.

You may be eligible for STRF if you are a California resident or are enrolled in a residency program, prepaid tuition, paid the STRF assessment, and suffered an economic loss as a result of any of the following:

1. The school closed before the course of instruction was completed.
2. The school's failure to pay refunds or charges on behalf of a student to a third party for license fees or any other purpose, or to provide equipment or materials for which a charge was collected within 180 days before the closure of the school.
3. The school's failure to pay or reimburse loan proceeds under a federally guaranteed student loan program as required by law or to pay or reimburse proceeds received by the school prior to closure in excess of tuition and other costs.
4. There was a material failure to comply with the Act or this Division within 30 days before the school closed or, if the material failure began earlier than 30 days prior to closure, the period determined by the Bureau.
5. An inability after diligent efforts to prosecute, prove, and collect on a judgment against the institution for a violation



of the Act. However, no claim can be paid to any student without a social security number or a taxpayer identification number.

To qualify for STRF reimbursement, students must file an STRF application within one year of receiving notice from the Bureau for Private Postsecondary Education stating that an institution has been closed. If a notice is not received from the bureau, students have four years from the date of an institution's closure to file an STRF application. If a judgment is obtained, an STRF application must be filed within two years of a final judgment. Students should retain copies of enrollment agreements, receipts, financial aid documents, or any other information that documents monies paid to an institution. Questions regarding STRF may be directed to the Bureau for Private Postsecondary Education, P.O. Box 980818, West Sacramento, CA 95798-0818.

### Obligations for Tuition Assistance

OST does not offer scholarships, grants, student loans, or tuition assistance of any kind. However, we are happy to assist you in preparing documentation for any outside tuition assistance you may use for your OST education.

If you obtain outside tuition assistance or financial aid in order to pay for OST courses, you are obligated to abide by the rules set forth by the institution, corporation, or organization providing those funds. These obligations include, but are not limited to, full repayment of all loans and interest, as well as repayment of any funds in the event of incomplete, withdrawn, or refunded

courses. OST shall not be responsible for repayment of any financial aid or tuition assistance to any outside party.

If you are eligible for a loan guaranteed by the federal or state government and you default on the loan, both of the following may occur:

1. The federal or state government or a loan guarantee agency may take action against you, including applying any income tax refund to which you are entitled to reduce the balance owed on the loan.
2. You may not be eligible for any other federal student financial aid at another institution or other government assistance until the loan is repaid.

### Tax Deductions for Educational Expenses

U.S. Treasury Regulation 1.162.5 permits an income tax deduction for educational expenses (registration fees, costs of travel, meals, and lodging) undertaken to:

- Maintain or improve skills required in one's employment or trade or business; or
- Meet specific requirements of an employer or law imposed as a condition to retention of employment, job status, or rate of compensation.

Please check with your tax preparer/advisor/CPA and/or the Internal Revenue Service to verify your eligibility for these deductions for courses taken with OST.

The instructors at the O'Reilly School give a lot of great feedback, and often give me suggestions for better ways I might do the assignments. The feedback is really valuable, especially for learning good practices for coding.

*Alan Foster*



# Course Catalog

## IT COURSES

### Android 1: Introduction to Mobile Application Development

90 Clock-hours | 448.00

In this course, you will learn the fundamentals of writing Android applications. Android is a Linux-based operating system and is considered an open source technology. Most applications are developed using a customized version of Java. From beginning to end, you will learn by doing Java-based projects. Upon completion of this course, you will be able to demonstrate understanding of basic view components and application classes. This course covers strings, drawables, lists, display dialogs, menus, styles, and themes in Android. You will create an application that implements multiple activities and can interact with a SQLite database. The lessons' projects, as well as the final project, will add to your portfolio and will contribute to certificate completion.

**Prerequisites:** *Java Programming 1: Introduction to Java and the Eclipse Development Environment* and *Java Programming 2: The Java Programming Language*, or equivalent solid foundations in Java programming. This course is meant for the beginning or intermediate programmer.

### Android 2: Advanced Android Application Development

90 Clock-hours | \$448.00

In this course, you will learn many of the more advanced techniques and features available in the Android SDK. The Android platform is expanding and new features are added continuously. This course will cover a variety of the features commonly used in popular Android applications. Throughout the course you will learn more features and skills to help you grow as a professional Android developer by completing lessons and projects and receiving instructor feedback. These projects, as well as the final project, will add to your portfolio and contribute to course completion.

**Prerequisites:** Android 1: Introduction to the Mobile Application Development, or equivalent skills. This course is meant for the intermediate to advanced programmer.

### C#.NET 1: Introduction to Object-Oriented Programming Using C#

90 Clock-hours | 498.00

In this course, you will learn your way around both Visual Studio and the .NET Framework. You will work with a variety of form controls and base class libraries to create simple Graphical User Interfaces (GUIs). The course covers variables, relational operators, decision statements, classes, methods, and additional topics that will provide a foundation upon which you can build your knowledge of object-oriented design concepts and the C# programming language. You will create several applications throughout the course, which will enhance your professional portfolio and help you advance toward certificate completion.

This course counts toward the C#.NET Programming certificate series.

**Prerequisites:** *Introduction to Object Oriented Programming*, *Modern JavaScript: An Introduction*, or equivalent skills.

### C#.NET 2: C# Programming in the .NET Framework

90 Clock-hours | 498.00

In this course, you will gain a deeper understanding of object-oriented programming. You will learn about data types and scope, and create programs using models, classes, objects, methods, and constructors, and you will learn the ways in which these elements relate to one another. File Input/Output (I/O) topics are also covered, allowing you to both read from and write to files. As you create increasingly complex projects, you will learn ways to debug your code as well. You will create several applications throughout the course, which will enhance your professional portfolio and also contribute toward certificate completion.

This course counts toward the C#.NET Programming certificate series.

**Prerequisites:** *C#.NET 1: Introduction to Object-Oriented Programming Using C#*, or equivalent skills.

## C#.NET 3: Advanced C# Programming

90 Clock-hours | 498.00

This is the third course in the C#.NET Programming certificate series. In this course, you will expand your understanding of object-oriented concepts and push the C# language to build more complex applications. Topics covered include multidimensional arrays, collections, sorting, inheritance and polymorphism, abstract and sealed classes, interfaces, regular expressions, exceptions, delegates, events, and simple database usage. Throughout the course, you will learn advanced C#.NET concepts by building projects within a special Learning Sandbox utilizing Visual Studio 2010. These projects, as well as the final project, will enhance your professional portfolio and advance you toward certificate completion.

This course counts toward the C#.NET Programming certificate series.

**Prerequisites:** *C#.NET 2: C# Programming in the .NET Framework*, or equivalent skills. This course is meant for the intermediate or advanced C#.NET programmer.

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## C#.NET 4: User Interface Design

90 Clock-hours | 498.00

This is the fourth and final course in the C#.NET Programming certificate series. In the course, you will learn the fundamentals of developing dynamic websites using ASP.NET and C#. You'll learn how to use JavaScript and Ajax to prevent entire webpage refreshes, and how to communicate using JSON and XML. You will learn how to use the entity framework and data abstraction to employ CRUD (create, read, update, delete) with websites connected to databases, and employ LINQ to work with your data. Throughout the course, you will learn advanced C#.NET concepts by building projects within a special Learning Sandbox utilizing Visual Studio 2010. These projects, as well as the final project, will enhance your professional portfolio and advance you toward certificate completion.

This course counts toward the C#.NET Programming certificate series.

**Prerequisites:** *C#.NET 3: Advanced C# Programming*, or equivalent skills. This course is meant for the intermediate or advanced C#.NET programmer.

## DBA 1: Introduction to Database Administration

90 Clock-hours | 398.00

Database administrators and programmers are often faced with tables and structures that were designed by other programmers. In order to conceptualize database objects and structures, you will need to understand the capabilities of modern database systems and how to retrieve database metadata. In this course, you will learn to design and create a database using basic SQL commands. You will also learn to manipulate data stored in tables, and return results that will allow you to analyze the data stored. You will learn by creating SQL-based projects in your own MySQL shell. These projects, as well as the final project—developing tables for a blog—will bolster your professional portfolio and help you to advance toward certificate completion.

This course counts toward the Database Administration certificate series.

**Prerequisites:** Although no prerequisite skills or programming experience is required, familiarity with variables and data types is recommended. This course is meant for the intermediate programmer.



Dana Nourie  
Community Manager  
VM Ware, San José, CA  
OST Courses: Ruby on Rails,  
Java 1, Java 2, Java 3

## DBA 2: Administering MySQL

90 Clock-hours | 398.00

In this course, you will learn to estimate database capacity needs and install a MySQL server. You will set up database users, grant permissions, and apply advanced security to database objects, as you learn to create and maintain database indexes. To ensure proper data security, you will learn to create backups and ways to restore data. You will also provide data to external systems using exports and learn the processes that will allow you to include external data using imports. Finally, you will learn to track database performance and ways to troubleshoot various problems you might encounter. From beginning to end, you will learn by creating projects in your own Unix and MySQL environments. These projects, and the final project—developing a complete database and demonstrating administrative tasks—will enhance your professional portfolio and bring you closer to certificate completion.

This course counts toward the Database Administration certificate series.

**Prerequisites:** *DBA 1: Introduction to Database Administration*, or equivalent skills.

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## DBA 3: Creating a Data Warehouse

135 Clock-hours | 448.00

In this course, you will learn what makes up a data warehouse and gain an understanding of the dimensional model. You'll learn how to implement the dimensional model using standard ETL processes, how to handle special data warehousing situations, and finally, how to query relational data warehouses using standard SQL commands. From beginning to end, you will learn by doing projects using Talend Open Studio, an Eclipse-based tool for implementing data warehouses within the Ellipse Learning Sandbox. You will complete projects using Talend, developing your own complete data warehouses. The projects you'll complete throughout the course, along with the final project, will enhance your professional portfolio and advance you toward certificate completion.

This course counts toward the Database Administration certificate series.

**Prerequisites:** *DBA 2: Administering MySQL*, or equivalent skills. This course is meant for the intermediate or advanced database administrator.

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## DBA 4: Analyzing Data

135 Clock-hours | 448.00

In this course, you will improve and expand the relational data warehouse you created in the previous course using Mondrian and JPivot, two popular tools used for multidimensional data analysis. First, you'll learn the basics of MDX, the query language of data warehouses, and then you'll build upon that knowledge to answer a variety of queries for fulfilling business goals. Finally, you'll learn how to write a schema for Mondrian—the XML document that bridges the relational and multidimensional worlds. You will learn by doing projects in your own Unix and MySQL environments within the Learning Sandbox. These projects, as well as the final project, will bolster your professional portfolio and contribute toward certificate completion.

This course counts toward the Database Administration certificate series.

**Prerequisites:** *DBA 3: Creating a Data Warehouse*, or equivalent skills. This course is meant for the intermediate or advanced database administrator.

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## Introduction to C Programming

135 Clock-hours | 398.00

In this course, you will learn the fundamentals of programming and the basics of the C language. This course covers far-reaching topics from variable types and arrays, to retrieving input from a user, to pointers and recursion, all of which provide the framework you need to become a good C programmer. Other topics covered include compiling, variables, math, input/output, conditional statements, loops, and arrays. From beginning to end, you will learn by making your own C programming-based projects. These projects, as well as the final project, will improve and expand your professional portfolio.

**Prerequisites:** No prerequisite skills or programming experience are required. This course is meant for the complete IT beginner.

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## Introduction to HTML and CSS

90 Clock-hours | 448.00

In this course, you will learn to create an attractive and organized website using basic and intermediate HTML and CSS. You will go from learning basic elements and how to create hyperlinks, to adding images to your page, using tables and forms, and how to structure your page most effectively. All along the way, you'll use Cascading Style Sheets (CSS) to control the look and placement of HTML elements. Additionally, you'll learn about box properties,

external style sheets, and how to create HTML source code that is both readable and upholds HTML5 standards. Introduction to HTML and CSS covers topics including HTML elements and attributes, links, images, tables, forms, spans, divs, CSS, box properties, HTML W3C standards, some new HTML5 elements such as section and article, and more. From beginning to end, you'll learn by creating your own HTML-based projects. These projects, as well as the final project, will bolster your portfolio and provide invaluable experience.

This course counts toward both the Web Programming certificate series and the Client Side Web Programming certificate series.

**Prerequisites:** No prerequisite skills or programming experience are required.

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## Introduction to Object-Oriented Programming

90 Clock-hours | 398.00

In this course, you'll be exposed to the concepts, fundamental syntax, and the thought processes behind true object-oriented programming. Completion of this course will give you the tools and basic knowledge you need to learn more specific object-oriented programming techniques in languages such as Java, C++, C#, and VB.NET. From beginning to end, you will learn by doing your own Java applet-based projects. These projects, as well as the final project, will bolster your portfolio and provide invaluable experience.

**Prerequisites:** No prerequisite skills or programming experience are required.

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## Introduction to PHP

90 Clock-hours | 398.00

In this PHP class, you will learn basic to intermediate programming aspects of the hypertext preprocessor language. PHP is a versatile server-side programming language that works in conjunction with client-side web languages such as HTML/CSS and JavaScript. PHP can be used to create various dynamic web interfaces, and because of its open-source robustness, has become one of the most widely used programming languages for the Internet. Introduction to PHP covers topics including variables, operators, control structures, loops, arrays, strings, functions, files, cookies, sessions, and more. From beginning to end, you will learn by doing your own PHP-based projects. These

projects, as well as the final project—building a shopping cart—will bolster your professional portfolio and provide an invaluable foundation of knowledge and experience.

This course counts toward the Web Programming certificate series, the Open Source Programming certificate series and the PHP/SQL Programming certificate series.

**Prerequisites:** *Introduction to HTML and CSS*, or equivalent skills. This course is meant for the beginning or intermediate programmer.

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## Introduction to Ruby on Rails

90 Clock-hours | \$448.00

Rails is a framework which runs on the Ruby programming language and is used to rapidly create web applications. Many startups use Rails because they can rapidly create a full application from scratch. Not only is Rails a great way to save hours of coding time, it's also a great way to learn advanced web development. When you learn Rails, you'll learn the tips and techniques that professional programmers use to create real-world web applications.

**Prerequisites:** *Introduction to HTML and CSS*, or equivalent skills.

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## Introduction to XML

60 Clock-hours | 398.00

In this course, you will learn the fundamentals of XML, for use with XML-enabled applications or for general web use. This introductory course provides a foundation in one of the primary tools used in web programming, web services, and APIs. Introduction to XML covers topics including basic XML syntax, formatting, comparing XML to HTML, elements, attributes, document type definitions (DTDs) and their usage, XML schemas, basic XSL, XML transformations, and XPath. From beginning to end, you will learn by doing your own XML-based projects. These projects, as well as the final project, will enhance your professional portfolio and will advance you toward certificate completion.

This course counts toward the Web Programming certificate series.

**Prerequisites:** *Introduction to HTML and CSS*, or equivalent skills. This course is meant for the beginning or intermediate programmer.

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## Java 1: Introduction to Java and the Eclipse Development Environment

90 Clock-hours | 398.00

In this course, you'll learn the fundamental concepts and syntax of the Java programming language. Throughout the course, you will learn by building examples using the Eclipse Java Development Environment, which is supplied as a Learning Sandbox called Ellipse. Upon completion of this course you will have a basic understanding of object-oriented techniques in Java, as well as the Eclipse IDE. From beginning to end, you will learn by doing your own Java projects, which will enhance your professional portfolio and provide invaluable experience.

This course counts toward the Java Programming certificate series.

**Prerequisites:** Some programming experience. If you are a beginner, we recommend either *Introduction to Object-Oriented Programming* or *Modern JavaScript: An Introduction* as bare-bones introductions to programming. This course is meant for the beginning or intermediate programmer.

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## Java 2: The Java Programming Language

90 Clock-hours | 398.00

In this course, you'll learn more concepts and syntax of the Java Programming language in greater depth. Throughout the course, you will learn by building examples using the Eclipse Java Development Environment, which is supplied as a Learning Sandbox called Ellipse. Completion of this course will give you an intermediate understanding of object-oriented techniques in Java, as well as using the Eclipse IDE. Java 2 covers data types, logic, arrays, and loops. From beginning to end, you will learn by doing your own Java projects, which will bolster your professional portfolio and provide invaluable knowledge and experience.

This course counts toward the Java Programming certificate series.

**Prerequisites:** *Java Programming 1: Introduction to Java and the Eclipse Development Environment*, or equivalent skills. This course is meant for the beginning or intermediate programmer.

## Java 3: Java Programming Foundations

90 Clock-hours | 398.00

In this course, you'll develop your range of capabilities to use fundamental Java application tools. You will learn about the structure and purpose of various classes in the Java API. In-depth experience with user interfaces, event and exception handling, Java I/O, and the collection framework will provide you with a toolkit that will enable you to implement applications, as well as understand the source code of others. You will design programs using Java threads, client/server sockets, and database connectivity, all of which will provide you with a solid basis for application building. From beginning to end, you will learn by doing your own Java projects within the Eclipse-based Learning Sandbox we call Ellipse. These projects will enhance your professional portfolio and provide invaluable experience.

This course counts toward the Java Programming certificate series.

**Prerequisites:** *Java Programming 2: The Java Programming Language*, or equivalent skills. This course is meant for the intermediate or advanced programmer.

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## Java 4: Java Application Building

90 Clock-hours | 398.00

In this Java course, you will learn about the structure and purpose of many of the classes within the Java API. You'll gain experience with user interfaces, event and exception handling, database connectivity, multiple threads, and synchronization. This experience will provide you with a toolkit that will enable you to implement applications and understand the source code written by others. You will design programs using Java threads, client/server sockets, and database connectivity, all of which will provide you with a solid basis for application building. From beginning to end, you will learn by doing your own Java projects within the Eclipse-based Learning Sandbox we call Ellipse. These projects will enhance your professional portfolio and provide invaluable experience.

This course counts toward the Java Programming certificate series.

**Prerequisites:** *Java Programming 3: Java Programming Foundations*, or equivalent skills. This course is meant for the intermediate or advanced programmer.



## Java 5: Distributed Java Applications

90 Clock-hours | \$398.00

In this Java course, you will develop a client/server distributed Java application from the ground up. Here, you will exercise all of your Java skills to implement a graphical client that communicates with a remote back-end server using XML messages. You will learn the tradeoffs that are common in client/server systems and gain valuable insights into how to design your own distributed, multi-threaded applications.

**Prerequisites:** *Java 4: Java Application Building*, or equivalent skills. This course is meant for the advanced programmer or IT professional.

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## Data Structures and Algorithms

135 clock hours | \$498

In this course you will work with the core data structures and algorithms needed to write efficient code. In many circumstances, the proper answer comes down to choosing the right data structure and implementing the right algorithm. Throughout the course, students are shown how to connect their growing knowledge of data structures with algorithms so they can design their own algorithms effectively. It will cover the core data structures in computer science including fixed arrays, linked lists, maps, queues and dequeues, trees and graphs, and will use existing implementations in the JDK to solve real problems.

**Prerequisites:** *Java 4: Java Application Building*, or equivalent skills. This course is meant for the intermediate or advanced programmer. It is also recommended that students have a strong working knowledge of discrete mathematics and/or linear algebra.

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## JavaScript: JSON and Ajax

90 Clock-hours | 448.00

In this course, you will learn advanced JavaScript, JSON, and Ajax, and how to use them to achieve your professional and creative goals. You will learn how to use the HTTP request object to communicate with both XML documents and Perl scripts. You will also learn the importance of validating forms before storing data, and how to search for data using both full and partial search strings. By working with the Google Maps API, you'll learn to utilize outside APIs, as well as how to use cookies to store and recall information. Upon completion of this course, you'll be able to build a dynamic, interactive, front-end web application. From beginning to end, you will learn by doing your

own JavaScript-based projects using JSON and Ajax. These projects and the impressive final application will enhance your professional portfolio and advance you toward certificate completion.

This course counts toward the Client Side Web Programming certificate series.

**Prerequisites:** *Introduction to HTML and CSS* and *Modern JavaScript: An Introduction*, or equivalent solid foundations in HTML, CSS, and JavaScript. This course is meant for the intermediate or advanced programmer.

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## Advanced JavaScript Essentials

90 clock hours | \$448

In this course, you will learn more in-depth fundamentals of the JavaScript language, going far beyond knowing how to use JavaScript to build web pages. You will master the core concepts in programming with JavaScript including types; objects and object-oriented programming; patterns for how to design and construct your JavaScript programs; and newer features in the language from the ECMAScript 5.1 specification. Throughout the course you will learn the nuts and bolts of the JavaScript language that you can use to grow as a professional front-end web developer. You'll practice these concepts by completing lessons, projects, and receiving instructor feedback. The course projects (including the final project) will add to your portfolio and contribute to course completion.

**Prerequisites:** *Introduction to HTML and CSS*, *Modern JavaScript: An Introduction*, and *JavaScript: AJAX & JSON* or equivalent experience. This course is meant for the intermediate or advanced programmer.





## JQuery for Advanced Front-End Development

90 Clock-hours | \$448.00

In this course you will learn the fundamentals of jQuery and jQuery UI. You'll build upon your existing JavaScript knowledge and see how jQuery makes creating web applications easier and faster. You'll learn how to select, filter, and style elements, how to use jQuery's event handling structure, how to apply effects in your page, how to make use of the jQuery UI library's extensive widget and interaction collection, how to use utilities like jQuery Ajax methods, and more.

**Prerequisites:** *Introduction to HTML and CSS* or equivalent skills, *Modern JavaScript: an Introduction* and *JavaScript: JSON and Ajax* or equivalent skills. This course is meant for the intermediate programmer with prior JavaScript programming experience, and a foundation in the language.

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## Linux Systems Administration: The Command Line

90 Clock-hours | 398.00

In this introductory course, you will learn the basics of using a Linux-based system. Topics covered include navigating the file system, working with files and directories, file permissions, the vi text editor, the Bash shell, processes, and ways to find help in the open-source community. From beginning to end, you will learn by doing Linux-based projects then submitting them for instructor feedback.

This course counts toward the Linux Systems Administration certificate series and the Open Source Programming certificate series

**Prerequisites:** No prerequisite skills or programming experience are required.

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## Linux Systems Administration: Fundamentals of Linux Security

90 Clock-hours | \$398.00

In this course, you will learn the basics of Linux system security. These are some of the tools and skills a system administrator needs to become a security engineer. This course focuses on network security issues and will help you improve the security of your systems by starting to think like an attacker.

**Prerequisites:** *Linux Systems Administration: The Command Line*, *Linux Systems Administration: Networking and Package Management*, or equivalent skills.

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## Linux Systems Administration: Networking and Package Management

90 Clock-hours | 398.00

In this course, you'll continue using real systems while learning to interface a Unix-based system with a network. You will start by learning about IP addresses and how to configure ethernet devices, discovering many of the services offered by a Unix server, and finishing up by configuring your very own DNS service from scratch. From beginning to end, you will learn by configuring a real Linux network. You will have root and console access to real machines, which will allow you to gain valuable real-world networking experience. The projects you complete throughout the course, as well as the final project, will enhance your professional portfolio and help you to advance toward certificate completion.

This course counts toward the Linux Systems Administration certificate series.

**Prerequisites:** *Linux Systems Administration: The Command Line*, or equivalent skills. This course is meant for the beginning or intermediate system administrator.

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## Linux Systems Administration: Services

90 Clock-hours | 398.00

In this course, you will delve into more advanced system administration topics and tasks, such as DNS, HTTP, and SMTP. Along with exploring these topics generally, you will install server software from both packages and source in order to implement these services in their own servers. You will have root and console access to real machines, allowing you to gain real-world experience. The projects you complete during the course, as well as the final project, will enhance your professional portfolio and advance you toward certificate completion.

This course counts toward the Linux Systems Administration certificate series.

**Prerequisites:** *Linux Systems Administration: Networking and Package Management*, or equivalent skills. This course is meant for the intermediate or advanced system administrator.

## Linux Systems Administration: Sed, Awk, and Perl

90 Clock-hours | 398.00

In order to prevent a system administrator from becoming completely overloaded, tasks that are to be repeated need to be automated. This course teaches some essential tools for automation, including the basics of sed, awk, and shell scripting. The majority of this course focuses on the undeniable power of Perl scripting in the hands of a system administrator. This course covers topics including sed, awk, shell scripting, Perl, loops, arrays and hashes, data manipulation, regular expressions, functions, directories and files, recursive searches, and more. You will have root and console access to real machines, allowing you to gain real-world experience. From beginning to end, you will learn by doing real sed, awk, and Perl based projects. These projects, as well as the final project, will enhance your professional portfolio and will advance you toward certificate completion.

This course counts toward the Linux Systems Administration certificate series.

**Prerequisites:** *Linux Systems Administration: Services*, or equivalent skills. This course is meant for the intermediate or advanced system administrator.

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## Modern JavaScript: An Introduction

90 Clock-hours | 448.00

Beginning with basic programming concepts, you will learn the syntax and structure of JavaScript programs, including statements, expressions, variables, and operators. Once you have mastered these basics, you will learn how to use loops and arrays, and how to use arrays and objects to collect values together in a program. You will discover how JavaScript interacts with a web page through the Document Object Model (DOM), and how to add and remove elements from the page dynamically. You will use functions and events to respond to user input, and use JavaScript to validate data input into a form. You will learn how to make your own menus with CSS and JavaScript and change elements on the fly. You will build a couple of large projects and test your skills with fun quizzes and programs. From beginning to end, you will learn by doing your own JavaScript-based projects. These projects, as well as the final project, will enhance your professional portfolio and will advance you toward certificate completion.

This course counts toward the Web Programming certificate series and the Client Side Web Programming certificate series

**Prerequisites:** *Introduction to HTML and CSS*, or equivalent skills.

This course is meant for the beginning or intermediate programmer.

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## Perl 1: Introduction to Perl

60 Clock-hours | 448.00

Perl has long been considered “the duct tape of the Internet.” It is used to do everything from building web pages to creating back-end applications and administrative scripts. In this course, you will learn the basics of scripting with Perl. Data types, conditionals, interpolation, arrays, lists, and hashes are all covered. You’ll then move on to cover subroutines, loops, formatted printing, data mapping, sorting, and working with external files. From beginning to end, you will learn by doing real Perl projects within the CodeRunner Learning Sandbox. These projects, as well as the final project, will bolster your professional portfolio and contribute toward certificate completion.

This course counts toward the Perl Programming certificate series and the Open Source Programming certificate series.

**Prerequisites:** No prerequisite skills or programming experience are required.

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## Perl 2: Intermediate Perl

60 Clock-hours | 448.00

In this course, we build upon the foundation established in Perl 1: Beginning Perl so that you can create practical programs to interact with the user and the operating system. One example of this interaction might be reading and writing files and directories. You’ll learn how to perform useful and important tasks without even writing programs, by calling Perl from the command line with brief “one-liners.” The course introduces the powerful technology of regular expressions for matching and changing text and expands your repertoire of Perl operators, functions, and looping constructs. From beginning to end, you will learn by doing your own Perl-based projects. These projects, as well as the final project, will bolster your professional portfolio and advance you toward certificate completion.

This course counts toward the Perl Programming certificate series.

**Prerequisites:** *Perl 1: Introduction to Perl*, or equivalent skills. This course is meant for the beginning or intermediate programmer.

## Perl 3: Advanced Perl

60 Clock-hours | 448.00

In this course, you will learn about slices, global matching, grep, map, and heterogeneous data structures. Upon completion of this course, you will be able to obtain useful info on files and the operating system in addition to learning to manage and manipulate data using grep and map. You'll learn to develop full-fledged Perl programs that employ exception-handling, multidimensional arrays, and regular expressions. From beginning to end, you will learn by doing your own Perl-based projects. These projects, as well as the final project, will enhance your professional portfolio and advance you toward certificate completion.

This course counts toward the Perl Programming certificate series.

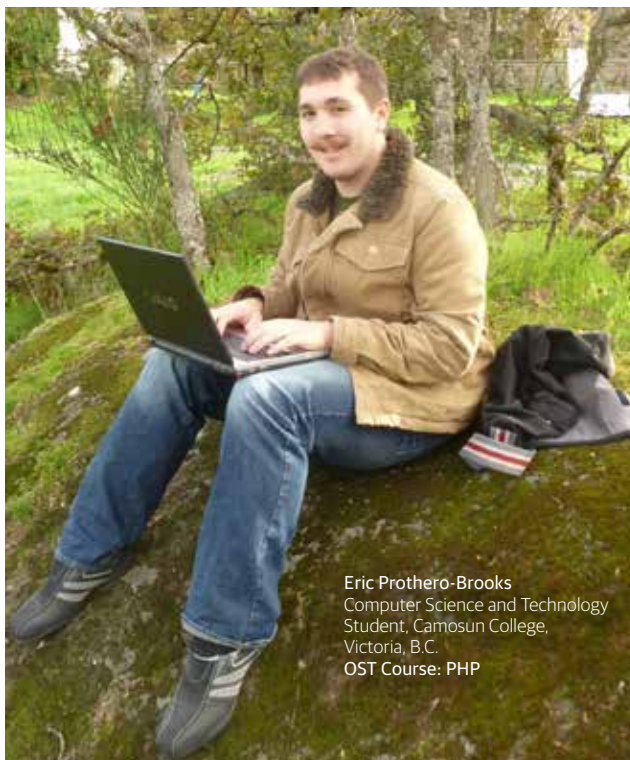
**Prerequisites:** *Perl 2: Intermediate Perl*, or equivalent skills.

This course is meant for the intermediate or advanced Perl programmer.

## Perl 4: Applied Perl

60 Clock-hours | 448.00

In this course, you will learn the application of Perl in performing many common complex tasks. You will not only learn how to use objects in Perl, but also how to make your own, so that you, too, can create reusable code (aka modules). We'll cover the basics



Eric Prothero-Brooks  
Computer Science and Technology  
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Victoria, B.C.  
OST Course: PHP

of object-orientated programming in Perl, and advanced aspects such as inheritance, polymorphism, inside-out objects, and the use of the Moose OO system. Also, because some of the modules we will need do not come with the standard Perl distribution, we will show you how to get any module you want from the Comprehensive Perl Archive Network (CPAN). All this, plus multiprocessing in Perl and using its build-in debugger, awaits you in Perl 4. From beginning to end, you will learn by doing your own Perl-based projects. These projects, as well as the final project, will enhance your professional portfolio and advance you toward certificate completion.

This course counts toward the Perl Programming certificate series.

**Prerequisites:** *Perl 3: Advanced Perl*, or equivalent skills.

This course is meant for the advanced or professional Perl programmer.

## PHP/SQL 1: Introduction to Database Programming

90 Clock-hours | 398.00

SQL (Structured Query Language) is the language used in databases such as Oracle, MySQL, and MS Access, to name a few. Knowing SQL is paramount in being able to use these database management systems. In this course, you will learn basic SQL database creation and manipulation, as well as how to search databases and incorporate them into PHP-based programs and applications. From beginning to end, you will learn by doing your own SQL-based projects using PHP. These projects, as well as the final project, will enhance your portfolio and advance you toward certificate completion.

This course counts toward the Web Programming certificate series, the Open Source Programming certificate series and the PHP/SQL Programming certificate series.

**Prerequisites:** *Introduction to HTML and CSS* and *Introduction to PHP*, or equivalent skills. This course is meant for the beginning or intermediate programmer.

## PHP/SQL 2: Relational Theory and Logical Design

90 Clock-hours | 398.00

Programmers require a thorough understanding of the relational model and logical design in order to build databases that remain consistent and secure while handling massive amounts of data. A professional database programmer also needs skills in translat-

ing the theoretical logical design to an equally safe and secure physical design within SQL, one that fully utilizes all of the tools available in SQL and PHP to maintain consistency and security of the design. In this course, you will learn advanced database theory, design, optimization, and security. From beginning to end, you will learn by doing your own SQL-based projects using PHP. These projects, as well as the final project—a social networking site—will be an impressive addition to your professional portfolio and will advance you toward certificate completion.

This course counts toward the PHP/SQL Programming certificate series.

**Prerequisites:** *PHP/SQL 1: Introduction to Database Programming*, or equivalent skills. This course is meant for the intermediate or advanced database programmer.

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## PHP/SQL 3: Seamless Web 2.0 Integration

90 Clock-hours | 398.00

Success in the social media world depends on a successful user experience. To create a robust and scalable website, the database programmer cannot focus merely on programming; programmers must design for all the possible environments and choices the user might make, as well as for the goals of the website itself—whether organizational or personal. Storing data is important, but just as important is how that data is gathered, organized, and presented. In this course, you will learn advanced User Interface (UI) techniques using PHP and SQL. You will also learn to build a dynamic website as a whole, using efficient and reusable code, while seamlessly integrating Web 2.0 design patterns, object-oriented PHP, web services, RSS feeds, and other advanced technologies and techniques. From beginning to end, you will learn by doing your own SQL-based projects using PHP. These projects, as well as the final project—a social bookmarking site—will enhance your professional portfolio and will help you advance toward certificate completion.

This course counts toward the PHP/SQL Programming certificate series.

**Prerequisites:** *PHP/SQL 2: Relational Theory and Logical Design*, or equivalent skills. This course is meant for the intermediate or advanced database programmer.

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## Python 1: Beginning Python

90 Clock-hours | 498.00

Python is a popular interpreted programming language used by many large organizations such as Google, O'Reilly, YouTube, Yahoo, CERN, and NASA. Python is fast and has several libraries and modules you can use to accomplish just about any programming task. In this course, you will learn the basics of programming with Python. Using the OST Learning Sandbox, you will learn about expressions, variables, conditionals, loops, lists, sets, dicts, functions, objects, and exceptions. From beginning to end, you will learn by doing real Python projects. These projects, as well as the final project, will enhance your professional portfolio and advance you toward certificate completion. By the end of the course, you will be ready to work on and build entire programs written in Python.

This course counts toward the Python Programming certificate series and the Open Source Programming certificate series.

**Prerequisites:** No prerequisite skills or programming experience are required.

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## Python 2: Getting More Out of Python

90 Clock-hours | 498.00

In this course, you will learn more in-depth techniques and strategies for programming with Python. You will get hands-on experience with Python's modular unit testing features; file handling, storage, and archival; graphical user interfaces; and technologies for working with databases and email. From beginning to end, you will learn by doing Python-based projects and submitting them for instructor feedback. These projects, as well as the final project, will add to your portfolio and will contribute to certificate completion.

This course counts toward the Python Programming certificate series.

**Prerequisites:** *Python 1: Beginning Python*, or equivalent skills. This course is meant for the beginning or intermediate Python programmer.

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## Python 3: The Python Environment

90 Clock-hours | 498.00

In this course, you will learn more high-end techniques and strategies for programming with Python. You will build sophisticated structures such as bunch classes, and revisit regular expressions. The course will also dive into the essential object-oriented con-

cepts in Python including encapsulation and polymorphism. Near the end of the course, we explore some accelerated test-driven development methods, including logging. These projects, as well as the final project, will add to your portfolio and will contribute to certificate completion.

This course counts toward the Python Programming certificate series.

**Prerequisites:** *Python 2: Getting More Out of Python*, or equivalent skills. This course is meant for the intermediate or advanced Python programmer.

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## Python 4: Advanced Python

90 Clock-hours | 498.00

In this course, you will learn to incorporate further object-oriented design principles and techniques with the intention of rounding out your skill set. Techniques like recursion, composition, and delegation are explained and put into practice through the ever-present test-driven practical work. The course concludes with coverage of the Python community, conferences, and job market. These projects, as well as the final project, will add to your portfolio and will contribute to certificate completion. This course counts toward the Python Programming certificate series.

**Prerequisites:** *Python 3: The Python Environment*, or equivalent skills. This course is meant for the intermediate or advanced Python programmer.

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## Unix for Web Programming

30 Clock-hours | 198.00

In this course, you will learn basic directory and file administration on the Unix or Linux platform, as well as web server configuration, maintenance, and baseline shell-scripting. You will also learn web and internet troubleshooting techniques to use on Unix-based web programming projects. From beginning to end, you will learn by doing your own Unix/Linux projects. These projects, as well as the final project, will enhance your professional portfolio and advance you toward certificate completion.

This course counts toward the Web Programming certificate series.

**Prerequisites:** *Introduction to HTML and CSS* and *Introduction to PHP*, or equivalent skills. This course is meant for the beginning or intermediate programmer, or the beginning system administrator.

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## MATH COURSES

You will be using a special Learning Sandbox called Making Math which utilizes Mathematica, a powerful computation engine. The following courses do not require any Mathematica or programming experience, and there is no additional software or textbook to purchase. Throughout the courses, you will learn by doing: exploring and investigating mathematics with the guidance from the lessons and the instructor.

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### MTH 010: Math Before Calculus

135 Clock hours | 540.00

Using interactive lessons and the power of Mathematica, students in this course will learn hands-on through experimentation. Computer homework problems are assigned weekly and are followed up with literacy problems, which are done on paper. Traditional lectures are not a part of this course.

**Prerequisites:** Two years of high school algebra and one year of high school geometry.

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### MTH 020: Calculus 1 – Derivatives

135 Clock hours | 540.00

The basic question throughout this course is, "What measures growth, and how does that give me a calculational advantage?" The course starts with data based questions about growth, moves on to average growth, and then to derivatives via instantaneous growth rates. There's a heavy introductory dose of differential equations to help internalize the idea that derivatives measure growth.

**Prerequisites:** Math 010 or equivalent.

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### MTH 021: Calculus 2 – Integrals

135 Clock hours | 540.00

Following the lead of Emil Artin in his mid-fifties honors course at Princeton, we say that the integral measures area. Our job, then, is to find out how to calculate those areas. Many of your favorite results about integrals come directly from that definition. To do the calculations, the Fundamental Theorem of Calculus is presented as the Fundamental Formula. Virtually all applications of the integral can then be done with this one elementary, albeit elusive, formula. You'll find a bit more about differential equations here, and a bit of a surprise in the lesson on the Gauss-Green Formula. Upon completion of the course, students will have a working knowledge of the fundamental definitions and theorems of elementary calculus, be able to

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complete routine derivations associated with calculus, recognize elementary applications of integral calculus, and be literate in the language and notation of calculus.

**Prerequisites:** *Math 020*, or equivalent.

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## MTH 022: Calculus 3 – Power Series

90 Clock hours | 360.00

This course begins with an introduction to splines and some of its applications. Then it proceeds to cover series, Taylor polynomials, convergence and power series.

**Prerequisites:** *Math 021*, or equivalent.

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## MTH 023: Vector Calculus

180 Clock hours | 720.00

This is a combined course in calculus of several variables, and a course in what has been called Advanced Calculus for Engineers, or Vector Calculus. The emphasis is on gradients and what they measure, flows in a vector field and how you analyze them, and the famous theorems of Gauss and Stokes.

**Prerequisites:** *Math 021* or equivalent.

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## MTH 030: Differential Equations

180 Clock hours | 720.00

Techniques and applications of ordinary differential equations, phase plane analysis, including Fourier series and boundary

value problems, linear systems, linearization, Lyapunov's method, flows, bifurcations, and an introduction to partial differential equations.

**Prerequisites:** *Math 023* or equivalent.

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## MTH 040: Linear Algebra

180 Clock hours | 720.00

This course is highly applied and computationally focused. The course combines the important underlying theory with applied examples from electrical engineering, computer science. The focus is on matrix action, the geometry of matrix action, and the underlying reasons for what we see, how we solve, and what makes it all work. The foundation is the singular value decomposition of matrices.

**Prerequisites:** *Math 023* or equivalent.

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## MTH 050: Probability and Statistics

180 Clock hours | 720.00

**Description:** In this course, you will be introduced to mathematical probability including the calculus of probability. The topics covered include combinatorial analysis, random variables, expectation, distribution functions, moment-generating functions, and central limit theorem. The course concludes with statistics topics such as sampling, confidence intervals and hypothesis testing.

**Prerequisites:** *Math 023* or equivalent.



# Academic Policies

## Enrollment Policy

You have the option to enroll in a certificate or a single course. If you enroll in a certificate, you have a 12-month period to complete all of the courses in that certificate. If you enroll in a single course, you have a 6-month period to complete the course.

To ensure timely completion of your program, you may be enrolled in only one course or one certificate at any given time. You may work as quickly as you can and complete as many courses as you want to as long as you complete each course or certificate by the end date specified in your enrollment agreement. There is no minimum time limit for completing courses or certificates, so you may enroll in a new course or certificate as soon as all of your current courses are complete.

## Cancellation and Withdrawal Policy

**Student Right to Cancel:** You have the right to cancel your Enrollment Agreement and obtain a refund of charges paid through attendance at the first class session, or the seventh day after enrollment, whichever is later.

The moment your enrollment is processed, all lessons, course materials, tools, and assignments are immediately transmitted and made available to you; therefore, your first class session begins the same day your Enrollment Agreement is executed and payment is received. For this reason, you have the right to cancel your entire Enrollment Agreement, and all courses within it, for a 100% refund of all charges paid, through the seventh day after the date of your enrollment.

To cancel your Enrollment Agreement and withdraw from *all* courses listed in that agreement within the 7-day period, you must log into your Student Start Page ([oreillyschool.com/student/](http://oreillyschool.com/student/)) and navigate to the "Lab Account" tab. Scroll to the bottom of the page and select "Withdraw From Courses." You may be asked to submit a short survey and cancellation form. You may also notify OST via email or mail. However, CA state law requires all cancellation notifications to be made in writing, so we cannot accept phone or other verbal cancellations. Once you submit this form, you will receive the agreed refund amount as soon as possible: within one week for credit card payments, and within 30 days for check payments or wire transfers.

If you opt to cancel, you will not be eligible for course completion, Clock Hours, or certificate program completion, regardless of the extent and amount of course material you have completed within any course.

To withdraw from any or all courses after the initial 7-day period, log into your Student Start Page ([oreillyschool.com/student/](http://oreillyschool.com/student/)) and navigate to the "Lab Account" tab. Scroll to the bottom of the page and select "Withdraw From Courses." You may be asked to fill out a short survey and sign a withdrawal form agreeing to the amount of refund that will be applied (in accordance with the stated Refund Policy listed below) and confirming your understanding the implications of cancellation and re-enrolling at a later date. You may also notify OST via email or mail; however, CA state law requires all withdrawal notifications to be made in writing, so we cannot accept phone or other verbal cancellations. Once you submit this form, you will receive the agreed refund amount as soon as possible: within one week for credit card payments, and within 30 days for check payments or wire transfers.

## Academic Integrity, Probation, and Dismissal Policy

At OST, academic honesty and integrity are crucial to the success of our students and our school. As a student, you are expected to conduct yourself in a mature, professional, and ethical manner in all of your interactions with the school and other students. Your failure to do so will constitute a violation of our academic integrity policy. You may be immediately dismissed from your program of study for any of the following violations:

- Failure to pay tuition, registration fees, and/or lab fees according to your Enrollment Agreement.
- Plagiarism in any form.
- Falsification of records, contact/payment information, or coursework documents submitted for review or credit.
- Deceit, fraudulence, cheating, unethical or disruptive behavior, forgery, or vandalism.

You may be put on academic probation for the following reasons:

- Failure to demonstrate reasonable and successful academic progress.
- Repeated failure to submit work according to the standards specified in the course materials and instructions provided by OST and your instructor.

Violations will be reported to the Faculty Manager, who will meet with the Academic Director to determine the consequences. If the consequences result in placement on academic probation, the conditions of the probation will be communicated to you in



writing. The period of academic probation will be determined by the Academic Director and Faculty Manager and will not exceed six months without subsequent review. At the end of the probationary period, the Academic Director and Faculty Manager will review your progress and make a determination to: 1) return you to good academic standing, 2) apply an additional period of probation, or 3) dismiss you. A record of probation or dismissal will be listed in your academic record as well.

All OST students must complete their courses within no more than two years from the start of their Enrollment Agreement.

## Reinstatement Policy

If you voluntarily withdraw, are put on probation, or are dismissed from your program for failure to meet financial or academic requirements and wish to be reinstated to active status, during your original enrollment period you may request to do so by contacting OST's Student Services ([info@oreillyschool.com](mailto:info@oreillyschool.com)) directly in writing. If your reinstatement is approved, you may be assessed unpaid fees and/or a \$50.00 nonrefundable account retrieval fee. You will also be required to meet the current academic requirements and standards established by OST. Previously completed coursework may be transferred into the current program when possible and applicable.

OST reserves the right to refuse admission, continuation, or reinstatement to any student.

## Student Leave of Absence

At OST, we understand that our students have other obligations, and that unexpected events can occur which may require a student to take a leave of absence. The self-paced nature of our courses makes it easy for you to schedule time away from your course.

If you take a leave of absence during the enrollment period listed in your Enrollment Agreement, the enrollment period will continue to be in effect and will end on the same date listed, regardless of when you return. Your leave status will mean that all communication from OST and instructors regarding your courses will be suspended.

If your leave of absence will take you past the end of your enrollment period, we recommend that you withdraw from your course(s) to receive any refunds due to you.

## Professional Licenses, Certifications, and Credentials

Licensure, examination-based certifications, and credentialing requirements vary from district to district, state to state, and across different corporate entities. OST's coursework requirements have not been designed to meet any particular industry's examination-based certifications, nor any particular local, state, or national licensing or credentialing requirements. However, in some cases students and graduates have experienced success in qualifying for examinations or fulfilling other academic requirements as a direct or indirect result of the coursework completed at OST.

If you are interested in any type of examination-based certification, licensing or credentialing, we advise you to check with the respective industry sponsors, state agencies, school districts, or professional associations before enrolling in an OST program.

## Student Records

Your student records will be stored securely at our data center, which is compliant with all safety standards and privacy laws for the state of California. We permanently maintain your transcript of grades, courses, and certificates earned. You may view your student records by logging into your Student Start Page. You may also order an official copy of your student record from OST by contacting Student Services at [info@oreillyschool.com](mailto:info@oreillyschool.com).

## Privacy Information

We value your right to privacy of information. The Family Educational Rights and Privacy Act (FERPA) of 1974, is a federal law that governs educational records. It grants specific rights to students and regulates how institutions must handle educational records, including grades. The main focus of FERPA is to give students rights to see their records and to protect against disclosures of certain information without the student's consent or specific legal authorization. For more information regarding FERPA, visit the following website: [www.2.ed.gov/policy/gen/guid/fpco/ferpa/students.html](http://www.2.ed.gov/policy/gen/guid/fpco/ferpa/students.html).

## Language Proficiency Policy

OST welcomes students from all over the world; however, all OST students must be literate in the English language.

In order to enroll in OST courses or certificate programs, you must have a high school diploma or college degree from an English-speaking institution or demonstrate college-level proficiency in written English. If you do not have a diploma or degree from an institution in which English was the primary language of instruction, you may demonstrate proficiency in the following ways:

1. You may provide documentation of a passing score (or better) from one of the following:
  - 730 on Reading and Listening and 140 on the Speaking and Writing components of the Test of English for International Communication (TOEIC).
  - 530 on the paper-based Test of English as a Foreign Language (TOEFL PBT).
  - 71 on the Internet-based Test of English as a Foreign Language (TOEFL iBT).
  - 6.5 on the International English Language Test (IELTS).
  - 50 on the PTE Academic Score Report.
2. If you have not taken one of the above examinations, you may provide a written personal statement (approximately 1-1/2 to 2 pages, double-spaced, 12pt. font) that addresses these questions in several polished and carefully edited paragraphs: Why are you enrolling in this OST course or program? What is your background in Information Technology? How are you prepared to succeed in this self-paced, online course? How do you plan to use your new skills?

The Academic Director will evaluate your personal statement. The essay must meet all of the following criteria:

- Demonstrates functional literacy in academic and technical English.
- Displays ability to construct a logical and coherent text.
- Provides appropriate explanations, examples, and details to support main points.
- Shows sufficient mastery of English vocabulary, grammar, and form to engage effectively in online discussion of technical topics.

If your submission does not meet these criteria, you will be asked to take one of the tests listed above and achieve a passing score in order to enroll in our courses or programs.

Send your essay by email attachment as a .pdf or .docx file to **manager@oreillyschool.com** and include your enrollment confirmation number (if available) in the subject line. The decision on your application will be communicated via email within three business days.

OST does not offer any type of remedial or specialized training in the English language, nor do we provide any type of visa services or assist with the verification of immigration status of any students as it may pertain to the student's relationship with the United States Government. OST does not currently offer instruction in any language other than English. OST welcomes all qualified adult learners and does not discriminate on the basis of race, color, national origin, religion, disability, gender, or sexual orientation in its policies, practices, or procedures involving applicants, learners, faculty, staff, and the public. Please note, however, that OST reserves the right to refuse admission to anyone we believe does not meet our academic standards

## Verification of Educational Credentials

OST's operating license from California's Bureau for Private Post-Secondary Education (BPPE) requires, at a minimum, a high school diploma (or equivalent) for all students as proof that they can benefit from our courses. As part of our enrollment process, you will be asked for the date of your highest diploma or college degree.

You may fulfill this requirement in one of two ways:

1. You may upload a .pdf of your diploma or proof of degree during the enrollment process. A percentage of students who self-certify each week will be subject to an audit wherein they will be asked to verify their credentials using our third-party service, Justifacts, via a link on the Start Page.
2. You may choose to use our third-party service directly. After you have completed enrollment in your course, your Start Page will include a link to the Justifacts site, where you will be asked to provide the information necessary to verify your diploma or degree.

The information you provide will not be retained by OST and will reside in a secure server at Justifacts, as specified in the Fair Credit Reporting Act. If you fail to complete the verification process within seven days, or if your diploma or degree cannot be verified, your enrollment will be cancelled and you will receive a refund.

## Ability-to-Benefit Student Policy

The State of California Bureau for Private Post-Secondary Education (BPPE) requires that any student not possessing either a high school diploma or GED prove their Ability to Benefit (ATB) prior to enrolling in a post-secondary institution. OST currently does not administer Ability-to-Benefit exams; therefore, our admissions policy requires students to certify possession of a high school diploma or GED, unless the student is able to provide scores from a BPPE-approved Ability-to-Benefit exam. Students in this category are instructed to send Ability-to-Benefit test results along with their printed OST application to the Student Services office by U.S. mail. For a list of BPPE-approved ATB tests, see [bppe.ca.gov/schools/usde\\_tests.pdf](http://bppe.ca.gov/schools/usde_tests.pdf).

Send Ability to Benefit scores to:

Student Services Manager  
O'Reilly School of Technology  
1005 Gravenstein Hwy North  
Sebastopol, CA 95472

## Grading Policies and Procedures

At OST, every assignment is evaluated on a "pass/improvement" basis. To pass a quiz, all long-form questions must be answered correctly, accurately, and completely, and with insight and explanation. To pass a project, all objectives stated in the project instructions must be fulfilled with a professional portfolio in mind:

- All code must execute without error, using the correct method and following proper programming practices.
- Content must be informative, relevant, and professionally appropriate.
- Presentation of the project should be organized and visually attractive.
- All work must be documented and problem-solving techniques explained.

If you have not successfully answered each quiz question or met the project objectives according to grading policies, your instructor will return the assignment for improvement and resubmission. Having your projects and quizzes returned for improvement is a normal occurrence and should not be misconstrued as failure in any way. This is a normal part of the learning process. Your instructor will provide detailed feedback and pose open-ended Socratic questions to guide your thought processes, while also providing the opportunity to discover the solution through your own research and practice. You are encouraged to

ask questions, attempt and submit different approaches, and keep submitting your work until you have demonstrated mastery of the assignment. When you move on to the next skill in the sequence of your course, you will be fully prepared to tackle the next step in your learning process.

When evaluating a quiz, your instructor will read all of your long-form quiz answers, comparing them with the answer key for accuracy, and applying the grading criteria to gauge the level of insight and explanation. Comments may be added for each question as well as for the overall quiz to provide encouragement or suggestions for improvement.

When evaluating your project, the instructor will check for accurate completion of each project objective, based on the answer key. When the project involves programming, scripting, or system-based tasks, your instructor will execute your code, examining the output as well as your source code for proper programming practices. Your instructor will also look at the project's content, presentation, documentation, and explanations of how you wrote the code, comparing each component with the grading criteria for that assignment. Any suggestions for improvements or alternate solutions will be included in the comments returned to you on your graded work.

Your instructor will then mark your assignment as "passed" or "needs improvement," depending on whether you have met the required specifications of that assignment. Then she will return the assignment to you along with detailed comments and feedback.

## Proctoring and Retake Policy

Since OST courses are project-based and exams are not given, we do not use proctors. Additionally, because we use formative assessment to evaluate student work, you will by design retake any assignment that you have not mastered completely. This is a very important aspect of our useractive constructionist method of learning.

## Refund Policy

If after seven days you are still enrolled in one or more courses listed in the Enrollment Agreement, the following refund policy will apply:

- The registration fee will be nonrefundable.
- If you are a California resident as defined by the Student Tuition Recovery Fund section in the course catalog, the STRF fee will be nonrefundable.

- If you withdraw from any course within the initial enrollment period listed above and have completed less than 60% of that course, you are entitled to a prorated refund of that course based on the percentage of the course not yet completed.
- The completion percentage is based on the number of assignments (quizzes or projects) that have been submitted, divided by the total number of assignments in that course. Due to the self-paced nature of courses and periodic course updates, the number of assignments for a course may change at any time.
- If you have completed 60% or more of a course, you are no longer entitled to a refund for that course.
- After the enrollment period listed in your Enrollment Agreement has passed, no refunds shall be issued for any course tuition or registration fees, regardless of completion percentage.

To withdraw from any or all courses after the initial 7-day period, log into your Student Start Page ([oreillyschool.com/student](http://oreillyschool.com/student)) and navigate to the "Lab Account" tab. Scroll to the bottom of the page and select "Withdraw From Courses."

You may be asked to fill out a short survey, and sign a withdrawal form agreeing to the amount of refund that will be applied, and verify that you understand the implications of withdrawing and re-enrolling at a later date. You may also notify OST via email or mail; however, CA state law requires all withdrawal notifications to be made in writing, so we cannot accept phone or other verbal cancellations. Within 30 days from the date we receive this signed and dated form, OST will remit the agreed-upon refund amount.



*OST Instructors are here to help you take the next step in your IT career.*

# Academic and Administrative Staff

Executive Director .....	Debra Woods
Academic Director .....	Matthew C. Bronson
Dean of Distance Learning .....	Kerry Butson
Student Services Manager .....	Georgia McClellan
Faculty Manager .....	Lorri Coey
Software Engineer .....	Michael Long
Process and Technical Editor .....	Steve Miller
Pedagogy and Style Editor .....	Kerry Beck
Information Technology Manager .....	Dan Bassett
Instructor .....	Jonathan Baker
Instructor .....	Mary Chou
Instructor .....	Ben Hengst
Instructor .....	Kelly Hoover
Instructor .....	Jared Loy
Instructor .....	Terry Mills
Instructor .....	Karen Tegtemeyer
Instructor .....	Kirby Urner
Technical Support Coordinator .....	Bryan Beauchamp
Student Support Coordinator .....	Roberta Valdez
Web Programmer .....	Christian Johns
Web Programmer .....	Walker Weyerhauser
Lead Web Developer .....	Sean Crawford

## Advisory Board

Executive Director .....	Debra Woods
Academic Director .....	Matthew Bronson
Dean of Distance Learning .....	Kerry Butson
Software Manager, Expedia .....	Trish Gray
President, Allied American University .....	Charli Hislop
Manager, Educational Technology and Online services, California Institute of Integral Studies .....	March Hajre-Chapman
Chief partner, Pacific Systems Design Technologies .....	Peter Scott
CEO, O'Reilly Media .....	Tim O'Reilly



**Executive Director Debra Woods** has over 26 years of experience as an instructor in both online and face-to-face education formats and has actively developed curricula for online courses for over 18 years. Debra served as the Director of Online Mathematics in the College of Liberal Arts and Sciences at the University of Illinois. She has presented online pedagogy at

conferences both nationally and internationally, and has served on campus advisory committees for implementing e-learning into the university. She was Co-Director of the Math Teacher Link program, and has written many successful grants to build online training courses for educators, as well as working with teachers on STEM education. In addition to a wealth of academic experience, Debra has practical experience in the field of engineering and computer science as a member of the technical staff in the aerospace engineering industry. Debra holds a Bachelor of Arts degree in Mathematics from University of California at Los Angeles, and a Master of Science degree in Applied Mathematics from the University of Southern California.



**Academic Director Matthew C. Bronson** is an educational linguist and researcher by training. He has embodied a commitment to transdisciplinary, problem-centered inquiry at seven universities as instructor and administrator. Matthew worked at

C.I.I.S. in San Francisco as a professor for 30 years, where he was a pioneer in teaching online classes, starting in 1998. He was a founder of the anthropology department and Center for Writing and Scholarship. He also served as Director of Academic Assessment from 2003 – 2013, overseeing the creation of a culture of evidence that resulted in a record 8-year reaccreditation from WASC (the regional accrediting authority for California). His work as a teacher educator at UC Davis since 1999 has centered on preparing high school science and math teachers to create high-impact learning and literacy experiences for linguistic and cultural minority students. His numerous publications include a 2012 entry in the *Oxford Handbook of Sociolinguistics*, an extensive review chapter in the *Encyclopedia of Language and Education*, and the edited volume *So What? Now What? The Anthropology of Consciousness Responds to a World in Crisis in 2009* (Cambridge Scholars Publishing). He has presented dozens of workshops and scholarly presentations nationally and internationally on topics such as intercultural communication, the introduction of new technology, and collaborative inquiry in assessment. In a previous career, Matthew worked as Director of International Business Development and a communications trainer for a division of Digital Equipment Corporation. Matthew holds a Ph.D. in educational research from UC Davis, and a Master of Arts and Bachelor of Arts in linguistics and cognitive science from UC Berkeley.





**Dean of Distance Learning Kerry Butson** has worked for OST since 1999 when it was known as Useractive. Kerry has over 14 years experience in online education and has instructed thousands of students in 25 different OST courses, including those that make up the Web Programming, Linux/Unix System Administration, Python Programming, Perl Programming, and PHP/SQL Programming Certificates. In 2000, Kerry was lead instructor for OST. During her time at OST, she has been an integral part of the course development team, rewriting both the HTML and JavaScript courses, testing and editing new courses to ensure they meet quality standards, and managing faculty. Currently, Kerry works with authors, editors, and the technical team to create new courses. She holds a Bachelor of Science degree

in Chemistry from the University of Illinois School of Chemical Sciences, where she worked as a teaching assistant. Kerry developed a passion for programming while writing her senior thesis to control and collect data from mass spectrometers for the Department of Physical Chemistry.

## O'Reilly Media Executive Administration

O'Reilly School of Technology is a division within O'Reilly Media, Inc., a privately held company founded in 1978.

CEO/Chairman of the Board of Directors ..... Tim O'Reilly  
President ..... Laura Baldwin  
CFO ..... Kathy Lanterman



*The OST staff at our annual Summit.*

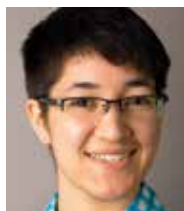
# Faculty Bios



**John Baker** instructs the HTML course and has nearly ten years of experience teaching technology. As Coordinator of Digital Media Administration at Stautzenberger College, he designed a curriculum that included web design, graphic design, and video production. In his work as an instructor, he has taught HTML, XML, CSS, PHP, MySQL, JavaScript, Photoshop, InDesign, Illustrator, Flash, and Dreamweaver. His certifications include Adobe Certified Expert (ACE) in Photoshop and CompTIA Technical Trainer (CTT+). John earned his B.A. in Cyberarts from the University of Toledo in 2000, and a Master of Science in Web Development from the University of Denver in 2012.



**Pat Barton** serves as the instructor for Python courses 1 through 3. Prior to joining OST, Pat spent more than 20 years as a developer, consultant, and lecturer in applied computational mathematics. His clients have included Intel, Sandia National Laboratory, and the U.S. Department of Energy. He has lectured and published internationally on mathematical modeling as applied to counter-terrorism, energy conservation and consumer psychology. He has served as an executive producer for open source events such as DjangoCon US and ApacheCon US. Pat is a serial entrepreneur, tinkerer, and "Maker" since long before the word was coined. His current interests include artificial intelligent learning systems, non-relational databases, Python, and more Python. Pat has degrees from the University of Michigan (B.A., Economics) and Dartmouth College (M.S., Engineering).



**Ari Chou** is an instructor for the Ruby on Rails course series, mentors for the PHP/SQL series, and assists in course development for OST. She spent two years working as an undergraduate research assistant for the Looking Glass Group, during which time she designed, implemented, and maintained integral pieces of the Looking Glass website using HTML, CSS, JavaScript, jQuery, and Ruby on Rails. She also collaborated with graduate students and co-authored two papers, *Setting the Scene: Scaffolding Stories to Benefit Middle School Students Learning to Program* (2013) and *Designing a Community to Support Long-Term Interest in Programming for Middle School Children* (2012). She holds a Bachelor of Science in Computer Science from Washington University in St. Louis.



**Lorri Coey** is the Faculty Manager at the O'Reilly School of Technology and curriculum developer for the Client-Side and Web Programming certificate series. Lorri has over 14 years experience in the HTML, CSS, JavaScript, and XML languages, as well as creating and managing websites, most notably for Wolfram Research and various companies within the medical, agricultural, and publishing industries. In addition, she has 15 years experience in the field of education, both in public K-12 classrooms, and online with the Netmath program at the University of Illinois at Urbana-Champaign, where she managed registrations and student services for calculus students worldwide. Lorri holds a Bachelor of Science degree from the University of Illinois in Agricultural Communications.



**Ben Hengst** is instructor for the Perl series, Python, and PHP. He has over ten years experience working with computers and information technology. During this time he has worked as a web developer and programmer, most recently at Powells.com. He draws inspiration from the Portland technical community and is currently involved in user groups such as PDXHackathon, and PDX.pm as well as helping organize events such as Open Source Bridge and Ignite Portland. Ben holds a Bachelor of Science degree in Multimedia and Web Design from the Art Institute of Portland.



**Kelly Hoover** is the instructor for the Linux/Unix System Administration certificate series, Introduction to PHP, and UNIX for Web Development. She has also participated in curriculum development for C, C++, Unix for Web Development, Linux/Unix System Administration, and Introduction to PHP courses. Prior to joining OST, Kelly worked as a developer and quality assurance manager for a number of companies in Champaign, Illinois, and the San Francisco Bay Area. She co-developed and tested web applications in the LAMP environment, with a focus on PHP/Perl, MySQL/PostgreSQL, Server Deployment, and System Administration. Kelly earned a Bachelor of Science degree in Biology, with a minor in Chemistry. She performed graduate research in Microbial Molecular Genetics and Biochemistry at the University of Illinois Urbana/Champaign, where she also gained considerable experience teaching biology students at the collegiate level.





**Michael Long** is the curriculum developer and instructor for the Java Programming certificate series, as well as system architect for the C#.NET Programming certificate series. Michael has worked with electronics and computers for over 30 years, focusing primarily on the Java, C++, and C# languages since 1990. He is currently the Software Engineer, Proprietary Technologies for OST, where he develops the Eclipse Learning Sandbox for presenting courses within the Eclipse Integrated Development Environment. In addition to software development, Michael has 19 years of experience in the field of education, working as an instructional assistant at Butte College, as well as a teaching associate at California State University, Chico. While at CSU, Michael taught Computer Literacy, Beginning Java, Advanced Java, and Advanced Theory of Computing. He was also a tenure-track instructor for the Computer Science and Computer Technology programs at Western Nevada College. Michael holds a Bachelor of Science degree in Computer Information Systems from California State University, Chico, and served as President of the Chico Alpha Chapter of Upsilon Pi Epsilon, the honor society of the Computing Sciences.



**Jared Loy** instructs Java Programming courses 1 through 3, C#.NET 1 and 2, as well as the Introduction to Object-Oriented Programming course. An early interest in computers and telephony has grown into an emphasis on programming, education, and media communications that serves him well as an OST instructor. Jared attended Watkins Film School in Nashville, Tennessee, which led to a role as writer/producer for a modestly successful short film, LemCon. He went on to produce a world-recognized podcast featuring long format interviews with top musicians, eventually taking over technical production and hosting duties of one of the longest running community radio shows on KDHX FM in St. Louis. Jared was previously a star pupil of the O'Reilly School of Technology Java Programming certificate series, and has even written for *Make: Magazine*.



**Terry Mills** instructs the courses in the Database Administration series. He has been programming since the early 1980s and was a librarian at a public library for 25 years before coming to the O'Reilly School of Technology. Terry has a Bachelor of Science degree in Psychology from Illinois State University and a Master of Science and Certificate of Advanced Study in Library and Information Science from the University of Illinois at Urbana-

Champaign. In his CAS paper, While working as a librarian, Terry developed his library's first website. He also assisted many local nonprofit organizations in setting up their first websites in conjunction with a project where the library system provided free web hosting. Before becoming an instructor, he had completed over 20 OST courses and earned five Certificates of Professional Development. He is also an Oracle Certified Professional, MySQL 5.0 Developer.



**Richard Rios** instructs C#.NET 3 and 4 as well assisting in the Linux series. He served as a Course Development Consultant for the C#.NET 4 course where he created lesson plans, quizzes and projects for MVC, the Entity Framework, Interfaces and

Extensions, and Object-Relational Mapping. As an Assistant Programmer at Desert Research Institute, Richard was responsible for the construction of technical documents in adherence to the Nevada System of Higher Education as well as Federal Government standards and guidelines. During his time at DRI he assisted in a database migration project where he was responsible for creating, managing and documenting database schemas using PostgreSQL and MySQL. Richard has also worked for Western Nevada College where he assisted in the development and deployment of an Object Level Security system. While at Western Nevada College he finished his A.S. in Mathematics. Richard is proficient in various programming languages, such as Python, MySQL and C/C++ and is currently in his final year at the University of Nevada, Reno.



**Karen Tegtmeyer** serves as an instructor for the Android and Java courses. Karen has experience in both the IT industry and education. She started her career in Java development writing a stock market tracking system. She has created programs that

have saved her previous company thousands of hours of data processing and has also led teams of software developers on source code reviews. She has several certifications, including Sun Certified Java Programmer. In 2011, Karen began teaching courses at Des Moines Area Community College, where she developed web-enhanced classes and course content, mentored students, and incorporated interactive online content. She is enthusiastic about all IT-related topics, loves the Learn by Making methodology of OST, and enjoys encouraging students in practicing and improving their coding skills. She lives in Johnston, Iowa, where she likes cycling and being involved in her community.



**Kirby Urner** instructs courses in the Python Programming certificate series. He has spent the last 20 years supporting Portland's nonprofit and government agencies with information technology training and custom database software

applications. His clients have included the Oregon Food Bank, youth shelters, a volunteer transportation system, and the Royal Government of Bhutan. While working for the Providence Health System, Kirby collaborated with cardiologists and statisticians to develop medical research databases and GUIs for use in the operating room. Kirby lectures on Python instruction internationally at EuroPythons, Pycon, and OSCON, and has taught Python for the Saturday Academy in Portland, Oregon. He has also worked as a high school math teacher in Jersey City's St. Dominic Academy, and in computer literacy publishing at McGraw-Hill in New York. Kirby has a Bachelor of Arts degree in Philosophy from Princeton University.



**Faisal Whelpley** is the instructor of OST's mathematics courses. He started teaching as an undergraduate mentor in the Net-math program offered at University of Illinois at Urbana-Champaign. As a graduate student, Faisal taught several undergradu-

ate mathematics classes on campus in addition to managing all the undergraduate mentors in Netmath. Faisal is an experienced Mathematica programmer who has also worked as a User Interface Developer for Wolfram Research, the makers of Mathematica. While at Wolfram Research, Faisal also spent time working in the Education group. Faisal earned his Bachelor of Science in Computer Engineering and his Master of Science in Applied Mathematics from University of Illinois.

## Adjunct Faculty Authors



**Steve Holden** is the author and curriculum developer for the Python Programming certificate series. Steve is the author of *Python Web Programming* (New Riders, 2002). He has taught at Learning Tree International for over 20 years and has

served as the Chairman and a Director of the Python Software Foundation. He has written everything from real-time device drivers to bill-of-materials processing systems. Steve was a tenured faculty member at the University of Manchester from 1980 – 1985, teaching commercial information systems. He led the team that developed VUWriter, the first mathematical and scientific word processor, and supervised the first UK implemen-

tation of the Smalltalk-80 object-oriented programming language. He later served as Senior Technical Support Specialist for Sun Microsystems. He currently runs his own independent consulting practice from Portland, Oregon. Steve holds a B.Sc. Hons (1st class) in Computational Science from Leeds University.



**Elisabeth Robson** is the author and curriculum developer for the Client-Side Programming certificate series. Having over 15 years of programming experience, Elisabeth has produced online training, and has written three best-selling books

(*Head First Design Patterns*, *Head First HTML and CSS 2nd Edition*, and *Head First HTML5 Programming*) and an online video course (*Learn to Build iPhone Apps with HTML, CSS, and JavaScript*) for O'Reilly Media. She has worked with everything from supercomputers to the iPhone, and she's been programming for the Web since the early days, when she built one of the first online resources for women in technology. She is currently co-founder and principal at WickedlySmart, an education content and technology company. Elisabeth holds a Masters of Science degree in Computer Science from Yale University, with an emphasis in programming languages and software systems.



**Peter Scott** is the author and curriculum developer for the Perl Programming series. He has over 30 years experience in information technology. Since 1999, he has headed his own Perl training consultancy. He is the author of *Perl Debugged* (2001),

and *Perl Medic* (2004), the creator of the DVD Perl Fundamentals (2009), and frequently speaks at O'Reilly's Open Source Conference. He worked at Britain's Royal Greenwich Observatory before joining NASA's Jet Propulsion Laboratory. Peter has developed across the entire spectrum of languages and systems, and architected enterprise-scale infrastructure with emphasis on provisioning. He holds an MA in Computer Science from Cambridge University and is currently combining his experience of team dynamics with his Master's certificate in Neuro-Linguistic Programming to coach executives and groups in the high-tech industry.

# Accreditation and Approvals

## State Licensure

The O'Reilly School of Technology is a private institution that holds Institutional Approval to Operate by the Bureau of Private Postsecondary Education (BPPE) of the State of California. Approval to operate means the institution is compliant with the minimum standards contained in the California Private Postsecondary Education Act of 2009 (as amended) and Division 7.5 of Title 5 of the California Code of Regulations.

O'Reilly School of Technology does not and has never held a pending petition in bankruptcy, nor are we operating as a debtor in possession. In addition, OST has NOT filed a petition within the preceding five years, nor have we had a petition in bankruptcy filed against us within the preceding five years that resulted in reorganization under Chapter 11 of the United States Bankruptcy Code (11 U.S.C. Sec. 1101 et seq.).

## Complaints and Appeals Policy

OST is committed to providing a high-quality experience in all interactions with students and a quality outcome in their education. Where this is not possible, we work proactively to resolve the concern by providing refunds or other accommodations where these are necessary, within our policies. You should feel free to contact your instructor directly with any questions or concerns about your course as the first recourse. If you have a complaint regarding your course materials, enrollment process, instructor, or any part of your experience at OST, please contact the Student Services Manager. Please include the email address that you used to sign up, your student confirmation number, and a brief description of your complaint and send it to:

### Student Services Manager

1005 Gravenstein Hwy North  
Sebastopol, CA 95472 USA  
manager@oreillyschool.com  
707-827-7187 (M – F, 8 am – 12 pm and 1 – 5 pm)

Your complaint must contain the following:

- The basis of the complaint
- All relevant names, dates, and actions
- A brief description of the actions forming the basis of the complaint
- Copies of any available documents or materials that support the complaint.

Your issue will be evaluated and, as needed, reassigned to the staff member responsible for resolving it. When necessary, you

may be contacted to provide more information in support of your complaint. If this additional information is not provided within 15 days, your complaint will be considered resolved.

Once the complaint has been reviewed and addressed, we will contact you with the results of our findings and any proposed resolution. Most complaints are resolved within a few minutes or hours (during business hours), but some may take longer. You should expect resolution within a maximum of 30 days.

**Appeals:** If you do not accept the remedy issued in the notification step above or if you do not receive a response from an OST administrator within the initial 30 days, you may appeal the decision given to you. To appeal a decision, you must file the appeal within 15 days of the initial complaint resolution. This will escalate the complaint to our Academic Director for the next level of review. As necessary, the complaint may be escalated from the Academic Director to the Executive Director. The Executive Director's decision on any issue or complaint is final. Appeals will be settled within a maximum of 15 days unless there is evidence that OST is making progress in rectifying the complaint.

The following issues are NOT considered by OST to constitute a complaint: student ID cards, graduation ceremonies, career services, ranking students, honor society, student clubs, counseling services, or job placement services.

Any questions a student may have regarding this catalog that have not been satisfactorily answered by the institution may be directed to the Bureau for Private Postsecondary Education at:

Physical Address: 2535 Capitol Oaks Drive,  
Suite 400, Sacramento, CA 95833  
Mailing Address: P.O. Box 980818,  
West Sacramento, CA 95798-0818  
Website: bppe.ca.gov  
Email: bppe@dca.ca.gov  
Phone Number: 916-431-6959  
Toll Free: 888-370-7589  
Fax Number: 916-263-1897

**A student or any member of the public may file a complaint about this institution with the Bureau for Private Postsecondary Education by calling (888) 370-7589 or by completing a complaint form, which can be obtained on the bureau's internet website bppe.ca.gov.**



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