

# Business Intelligence Analysis

*Specialized Certificate*

## Business Intelligence, Defined

Within the realm of data analytics, differentiated roles and functions have emerged. A key role is that of the Business Intelligence (BI) Analyst. BI analysts gather data through a number of means, and then use the data to determine industry trends thereby enabling easier decision-making within an organization. Business intelligence provides historical and current (descriptive) views of business operations, as well as basic predictive and prescriptive analytics, making it applicable and useful for almost any industry.

## Applications of Business Intelligence

Businesses can use BI analysts to determine how to improve processes, to discover efficiencies, to support customers, and to reduce costs. Common functions of business intelligence are reporting, online analytical processing, analytics, data mining, process mining, complex event processing, business performance management, benchmarking, text mining, predictive analytics and prescriptive analytics.

## Program Overview

This hand-on certificate provides individuals with the skills necessary to become successful BI analysts who support data-driven organizational decision-making and maximize the utility of accumulated data. Students will gain a comprehensive, working knowledge of the complete analytics cycle, from determining requirements to extracting and disseminating information through various visualization techniques. Advanced topics such as predictive analytics, SAS Programming, R programming, Python, or SQL can be taken as electives for further specialization.

## Program Benefits

- All courses can be taken online, some also offer in-class options for added flexibility
- Practical hands-on training
- Taught by leading industry practitioners
- Can be completed in only one year
- Immediately applicable skills
- Industry-neutral curriculum allows you to apply knowledge to your field of interest

## Key Program Topics

- Survey of popular BI tools
- Using SQL to create, manipulate, and build reports from database tables
- Using Excel for data analysis and reporting
- Database design and data warehousing
- Powerful data analysis techniques
- Using Tableau to create dashboards and data visualizations
- Introduction to predictive analytics & big data

## Program Details

### Audience

The Business Intelligence Analysis program is targeted for individuals who want to acquire the skills to become successful BI analysts. Whether you want to grow your skills to be more effective in your current position, change industries, or obtain a promotion, this program will provide you with the skills to support data-driven organizational decision-making.

### Prerequisites

There are no prerequisites required to enroll in the certificate program, however basic programming knowledge is recommended but not required for some of the courses. (See "Program Requirements" below for more information.)

### Requirements

There are four required courses and one elective course required to complete the Business Intelligence Analysis program. You may take the required courses in any order, provided you have met any prerequisite requirements. The chart below shows when and in what format courses are offered.

- [Introduction to Programming](#) or equivalent knowledge is recommended, but not required, for [Introduction to SQL Programming](#).

| Suggested Prerequisite <small>Recommended for those without prior knowledge of spreadsheet software</small> |       |        |        |        |        |
|-------------------------------------------------------------------------------------------------------------|-------|--------|--------|--------|--------|
| TITLE & COURSE NUMBER                                                                                       | UNITS | FALL   | WINTER | SPRING | SUMMER |
| <a href="#">Intermediate Excel</a><br>CSE-41250                                                             | 3.0   | Online | Online | Online | Online |
| Required Courses <small>Can be completed in any order</small>                                               |       |        |        |        |        |
| TITLE & COURSE NUMBER                                                                                       | UNITS | FALL   | WINTER | SPRING | SUMMER |
| <a href="#">Overview of BI and Data Analysis</a><br>CSE-41221                                               | 3.0   | Online | Online | Online | Online |
| <a href="#">Introduction to SQL Programming</a><br>CSE-40933                                                | 3.0   | Online | Online | Online | Online |
| <a href="#">Advanced Excel for Analysis and Business Intelligence</a><br>CSE-41161                          | 3.0   | Online | Online | Online | Online |
| <a href="#">Dashboards and Data Visualization for Data Analysis</a><br>CSE-41222                            | 3.0   | Online | Online | Online | Online |
| Elective Courses <small>Choose one</small>                                                                  |       |        |        |        |        |
| TITLE & COURSE NUMBER                                                                                       | UNITS | FALL   | WINTER | SPRING | SUMMER |
| <a href="#">Introduction to R Programming</a><br>CSE-41097                                                  | 3.0   | Online | Online | Online | Online |
| <a href="#">Intermediate SQL Programming</a><br>CSE-40948                                                   | 3.0   | Online | Online | Online | Online |
| <a href="#">Advanced Business Intelligence: Introduction to Predictive Analytics</a><br>CSE-41288           | 3.0   | Online | Online | Online | Online |
| <a href="#">Python for Informatics</a><br>CSE-41225                                                         | 3.0   | Online | Online | Online | Online |

## Electives

You must take at least 3.0 units to fulfil your elective requirement for the program. There are many courses to choose from and courses are offered in both in-class and online formats. Some electives have prerequisite requirements you must meet prior to enrolling.

- [Introduction to Programming](#) or equivalent knowledge is recommended, but not required, for [Introduction to R Programming](#).
- You must have completed [Introduction to SQL Programming](#) (a required course) prior to enrolling in [Intermediate SQL Programming](#).

## Length

Most students complete the program in about a year and three months by taking one course per quarter for five consecutive quarters. If you would like to complete the program more quickly, you can take more than one course per quarter. You have up to five years to complete all requirements for the certificate.

## Cost

The program costs approximately \$3,820, including the certificate fee, course fees and required textbooks. This is an *estimate* of the full cost of the program. This estimate may vary based on a variety of factors, including if you need to take the prerequisite, which elective course you choose, in what format you take courses (online or in-class), and where you purchase your textbooks.

The cost of attendance does not include parking, transportation, or personal expenses. *All estimated costs are subject to change*; current fees and textbooks are listed on our website.

Program fees are paid on a per-course basis, when you enroll in a course.

## Additional Learning

If you would like to further your learning, after completing the program, we recommend you take the [Advanced Business Intelligence: Introduction to Predictive Analytics](#) course (if you did not take it as your elective) or the [Data Mining for Advanced Analytics certificate program](#).

## Frequently Asked Questions

### About the Certificate

#### How do I apply to the certificate program?

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

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

#### Is there an application fee for the certificate program?

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

#### Can I register for the certificate program at any time?

Yes, you may enroll in the program at any time. However, it is recommended that you enroll as soon as possible.

The program curriculum may be updated at any time; if certificate requirements change, you must adhere to the curriculum.

*at the time of your enrollment into the certificate.* Enrolling in the certificate also gives you access to quarterly, personalized enrollment reminders from the program manager.

## Can this certificate program be completed entirely online?

Yes! This program is designed for you to take it online in the convenience of your own home or office. Some courses may also have in-class options, but all program requirements can be completed online. For online courses, all assignments, tests, and quizzes can be completed online and submitted through [Canvas](#), our online learning platform.

## How long do I have to complete the certificate?

You officially have five years from when you begin taking courses in the program to complete all requirements for the certificate.

## If I already have the skills taught in one of the courses, can I skip that course?

If you have taken a course from an accredited university covering the learning objectives of a program course, you may be able to transfer your previous coursework to Extended Studies. If you have not taken a course elsewhere, but already have the skills covered in a course, you may be able to substitute an alternate Extended Studies course in its place. Please contact the program representative at [unex-techdata@ucsd.edu](mailto:unex-techdata@ucsd.edu) for more information.

## Is this certificate program open to non-California residents?

Yes, the program is open to non-California residents, including non-US residents. The tuition is the same for all students. If you have questions about how enrolling in courses may or may not affect your visa status, please contact our International Department at [ipinfo@ucsd.edu](mailto:ipinfo@ucsd.edu) or (858) 534-6784.

## If I work full-time, will I still be able to complete this program?

Yes. Our programs are designed to be working-student friendly and most of our students are working professionals. The courses vary between two and three units, which amount to approximately 18-20 hours of class time for a two unit course and 27-30 hours of class time for a three unit course.

## Is the program accredited?

UC San Diego is accredited by the Western Association of Schools and Colleges (WASC). UC San Diego Division of Extended Studies — like all other UC San Diego schools, colleges, and departments — is accredited by WASC through the University. All courses and certificate programs offered by UC San Diego Extended Studies have been developed and are administered in accordance with Extended Studies policy and the regulations of the Academic Senate of the University of California.

## Will this program prepare me for a certification exam?

This program is not aligned with any one certification exam. Our programs are designed to provide students with knowledge that will make them valuable in the workforce.

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

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

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

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

## Do you provide job or internship placement?

No, we do not currently offer job placement assistance, internships, or career services assistance.

## Is financial aid available?

Yes, there are various financial aid options available to students. Please contact our Student Services Department at [unex-reg@ucsd.edu](mailto:unex-reg@ucsd.edu) or (858) 534-3400 for more information.

- Student Loans: Division of Extended Studies offers continuing education loans through UC Approved Lenders. Each institution offers low competitive interest rates and flexible payment options. Links to UC Approved Lenders can be found [on our website](#). You are also encouraged to contact your personal financial institution about lending solutions.
- Federal Employment Development Department: The EDD provides a comprehensive range of employment and training services in partnership with state and local agencies. More information is available [on their website](#).
- San Diego Workforce Partnership: Career centers located throughout San Diego County offer comprehensive employment and training services. More information is available [on their website](#).
- Veterans Education Benefits: You may be able use your veteran's education benefits to help pay for your education at UC San Diego Extended Studies. You can find more information [on our website](#).
- Free Application for Federal Student Aid: Unfortunately, FAFSA funds are limited to degree programs only and cannot be used for courses or certificates at Division of Extended Studies (such as this program).

## About the Courses

### When does course enrollment open for each quarter?

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

### When should I enroll in a course?

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

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

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

### When does enrollment for a course close?

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

- The course is at capacity. If the course is at capacity you will only be able to join the waitlist. If space becomes available in the course, students on the waitlist are contacted in the order they joined the waitlist.
- The course has progressed to a point where students will no longer be able to make-up missed work and be successful in the course.
- The course is cancelled due to low enrollments.

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

### When is the refund deadline for courses?

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



## What are the grading options for courses?

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

## What kind of credit do I earn?

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

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

## Are courses transferrable?

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

## Can I take a course without registering for the certificate?

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

## How long is each course?

Two unit courses run for approximately 6-7 weeks; three unit courses run for approximately 9-10 weeks. For exact course dates of upcoming sections, visit the webpage of the course you are interested in taking on [our website](#).

## When is each course offered?

Please visit the course page on [our website](#) to see when courses are typically offered. You can also see a full program schedule by clicking on the "Print Program Schedule" button under the "Courses" section on [the certificate page](#) or on page 2 of this document.

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

Each student has their own learning style so this can vary greatly. As a rule of thumb, expect to spend an average of two hours studying for every hour you spend in-class. For online courses, students should plan to spend approximately 8-10 hours per week viewing lectures and completing coursework.

## How are the online classes formatted?

The online courses are asynchronous: they have a start and end date but all the lessons are uploaded on [Canvas](#), our online learning management system, so you can learn at your own pace. However, please be aware that you may have weekly assignments, quizzes, or tests that are due on specific dates. Please [click here](#) to view a sample course tour to see if this format suits your learning style.

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

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

## What are the instructors' credentials?

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

## How do I communicate with a course instructor if I have a question during the course?

Each instructor has his/her own preferred method of communication and response policy, which will be detailed on the course syllabus. However, most instructors utilize email or the discussion board and will respond within 24-48 hours.

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

Most courses combine theory with hands-on exercises. For more information about practical experience in any course, visit the course page on our website.

## What are the required textbooks for a course?

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

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

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

## What software is used for courses and what are the system requirements?

Each course has different software requirements. Please see the course page on our website for details. If no software is listed, you will not be using any.

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

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

## How will I receive my final course grade?

Once the course is completed, the instructor has 10 business days to submit your grades. Once grades have been posted, you can view and print them from your [My Extension](#) account.

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

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

## For More Information

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