Systems Analyst Certificate Program
PROGRAM DESCRIPTION

The Systems Analyst Certificate Program offers a comprehensive curriculum focusing on the knowledge needed to support an organization’s computing needs. The target audience consists of programmers and network specialists who wish to gain a systems perspective of their organization’s IT infrastructure and who are charged with solving a variety of technical problems involving software, hardware, and project implementation. Specific areas of focus include:

- Requirements analysis
- Systems “thinking”
- Project processes and methods
- Business process analysis
- Systems integration
- System performance modeling
- Data management systems
- Quality control

PROGRAM NEED

According to the U.S. Department of Labor’s 2002 – 2003 Edition of the Occupational Outlook Handbook, “…systems analysts, computer scientists, and database administrators are projected to be among the fastest growing occupations” through 2010. Anticipated rapid growth in computer and data processing services, demand for networking capabilities to facilitate information exchange, and the need to replace workers moving into managerial roles will fuel the demand for these occupations, says the Handbook.

CERTIFICATE REQUIREMENTS

In order to receive the Systems Analyst Certificate, students must complete a total of 15 units of coursework with a grade of “C” or better in each course. There are 10 units of required courses and a minimum of 5 units of elective courses as shown in the table following the course descriptions (below). The target audience consists of individuals who have computer science or information systems management experience or training and wish to broaden their skills by learning systems concepts and analysis techniques.

REQUIRED COURSE DESCRIPTIONS

Foundations of Systems Analysis  
I&CSCI X429 (3 Units)  
This course provides an overview of systems analysis focusing on enterprise-wide business systems. Students learn how to develop system models that include processes, networks, and databases, and gain knowledge of the design process for application architectures. The course features several software packages for facilitating the design process.

Documenting and Analyzing User Requirements  
MGMT X481.3 (3 Units)  
This course focuses on the analysis and documentation of requirements and the role of business and systems analysts. Topics include capturing requirements in a business requirements document, project vision and scope, identifying users, types of requirements, elicitation techniques (context diagram, concept of operations, etc.), structuring end user and technical requirements, and documenting the full set of requirements.

Project Management for Systems Design and Analysis  
MGMT X482.1 (2.5 Units)  
Developing a business system of interrelated components involves special techniques for analysis, design, and management. This course, designed for persons already familiar with basic project management, introduces a step-by-step methodology for incorporating systems thinking in project management. Students work through case studies in which they apply project management to design problems that involve systems-based solutions.

Systems Integration and Architecture  
I&CSCI X429.01 (1.5 Units)  
This course provides an overview of systems integration and architecture with a focus on entire program lifecycles. Topics include system analysis and modeling, requirements development and analysis, risk management, and verification and validation. The course features examples and case studies drawn from the information technology and engineering disciplines.

ELECTIVE COURSE DESCRIPTIONS

System Performance Modeling  
I&CSCI X429.02 (2.5 Units)  
Learn the fundamental techniques of system modeling and performance evaluation. This course reviews fundamental concepts including queuing theory and Markov chains, and explores the application of these techniques to computer networking and architecture. The course also includes a survey of metrics and computational techniques for the analysis and assessment of system performance.

Data Modeling  
I&CSCI X429.03 (2.5 Units)  
Learn how to develop a graphical model of the information (data) that an organization uses to carry out its business functions. This course explores several methods for performing data modeling with the primary objective being to identify and document specific information, such as customer names or product codes, that an organization needs in order to carry out its business functions. Topics include performing data requirements analyses, identifying entities and attributes, determining the relationships among entities, creating an entity-relationship diagram, and implementing the diagram in the form of a relational database. The emphasis of this course is on the analysis rather than on the actual implementation of the database.
Communicating Technical Concepts to a Non-Technical Audience  
**MGMT X481.4 (2.5 Units)**  
Communication skills are essential in all organizational roles. The business analyst role requires additional skills and expertise in communicating technical concepts to others from different professional groups, hierarchical positions, or internal departments. Topics include: advocating ideas upward through more effective issue analysis and argument selection; creating compelling briefings and technical presentations; organizing thoughts and ideas for effecting technical presentations; getting people to feel urgency and make decisions and separating a “real” opportunity from a “resource drain”. Course includes role-plays, activities and interactive discussions.

Migration Strategies for Legacy Systems and Software  
**I&CSCI X429.04 (3 Units)**  
Upgrading from older software applications, databases, and complete IT systems to state-of-the-art technologies is one of the most challenging projects facing IT departments. This course shows you how to plan, implement, and manage a legacy migration project. You’ll learn how to approach the various components of a typical enterprise information system systematically as you develop a migration path for each component. You’ll also learn how to keep your corporate data secure and your existing applications functional during the transition. The course concludes with a section on testing and validating the newly upgraded system.

### QUARTERLY SCHEDULE OF COURSES

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<tr>
<th>COURSE #</th>
<th>REQUIRED COURSES (Choose 10 Units)</th>
<th>UNITS</th>
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<th>ELECTIVE COURSES (Choose at Least 5.0 Units)</th>
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Note: Schedules are subject to change  
C = Classroom ■ O = Online  
W = Winter ■ SP = Spring ■ SU = Summer ■ F = Fall

Check our catalog or web site (extension.uci.edu) for most current schedule.
What are the online course fees?
$600 each

What is an online course?
An online course utilizes the internet as a means of creating a learning environment outside of the traditional classroom. The lectures and discussions will take place on a Distance Learning Center website. You will be able to access your course lectures (text based) and communicate with your classmates and instructors through the use of a discussion forum (message board). The online courses follow a classroom structure of moving one lesson per week. You can access your course website anytime of the day, any place where you have access to the internet.

Who can take online courses?
Anyone can take an online course as long as they have access to a computer with internet capabilities and have an active email account. An online student also has to be motivated to participate in discussion forums and regularly check the website and keep up with the course work.

What happens if I fall behind or complete the course early?
It is okay to be a week ahead or behind. You must remember that participation is a very important aspect of your final evaluated grade for the course. Active participation requires you to post and respond to your instructor and fellow classmates’ comments on the discussion forum. If you are too far behind, posting to an old topic will be revisiting something that the majority of your classmates might already have discussed.

Are there specific dates that I need to log on to the web site?
There is a set beginning and end date for your online course. It is suggested that you log on at least 3 times each week to check the discussion forums, and to read over assignments and lectures. This is the “asynchronous” aspect of the course.

There may be occasions when the instructor will set a chat time (“synchronous”) where he/she assigns a specific date and time for all the students to try to meet in the chat room to ask questions.

All assignments, quizzes, exams, and projects must be completed within the time frame of the course. The instructor will set individual due dates for your assignments, projects and tests.

How many hours a week do I have to devote to my online course?
Just like a classroom course, to get the most out of any type of learning you must commit a certain amount of time to complete the course. You will most likely spend approximately 10 hours each week going over class lectures, doing assignments and spending time on the discussion forum.

Will I be able to see my online instructor or communicate with him/her via telephone?
Unless there is an extreme instance, all communications with your instructor will be done either through email, the discussion forums or the chat sessions. Please do not expect your instructor to telephone you.

How do I communicate with my instructor?
You communicate with your instructor by either email, discussion forums, or chat sessions. Students are highly encouraged to use these modes of communication, as faxed or mailed assignments are not accepted.

What happens if I have trouble accessing the URL with my login and password?
Contact the Distance Learning Center (DLC) office at unex- online@uci.edu or 949-824-7613 and we will assess and work to fix any problems in the most expeditious manner. In order to better serve you, please note the problem as it occurred.

Will having a firewall at home or at work prevent me from working on my online course?
Although, this very seldom occurs, your firewall may prevent you from posting to the discussion forum while allowing you to read the lectures and other resources.

Do I need to have cookies enabled?
Yes, it is necessary to have your cookies enabled. To best protect your computer it is suggested that you vary your cookie options to ensure the most secure level.

Can I access my course from anywhere?
You can access the course anywhere that you have an internet connection. Some companies have firewalls that prevent you from participating in the chat sessions. Please check with your company before you attempt to access the course.

I have enrolled and I entered my key but it still won’t let me in.
Many of you will have enrolled prior to the course start date. Courses will not appear until a few days before the course start date. Please note that the first week is considered an orientation week where you can become familiar with the course tools. Always make sure to enter a course for the current quarter that you are signed up for. Many times, previous quarters will be available for past students. The registration number will be listed (5 digit number beginning with 2 zeros) and a quarter indicator (SP – Spring, SU – Summer, W – Winter, and F – Fall).

When is the last day to drop the course?
The last day to drop these courses follows the standard provided in the UCI Extension catalog. There will be an administrative fee accessed for any withdrawals within the allowable period.

What happens if I can’t finish a course?
We understand that certain situations can occur. Please refer to the UCI Extension catalog for procedures, etc.
How do I know which online courses can take the place of classroom courses?
Please visit our website at http://unex.uci.edu for more information about our certificate programs and course offerings.

How do online courses work?
Once you begin your course, you will find that with the use of the course tools, you will be able to navigate from the lecture to the discussion forums or to the weekly outline. You will be able to maneuver through the website to post/read assignments and to download/upload files from your instructor. Your instructor will primarily be contacting you by email or through the discussion forum. Once you begin your course, you will find that with your instructors help, you will find the benefits of taking a course online.

Do I need to purchase books or any additional items?
Some courses do require that you purchase books or software. Please contact the UCI Bookstore for more information about the books for your courses at (949) 824-7810. You can also contact the Distance Learning Center at unex-online@uci.edu.

What happens after I sign up for a course? How do I get started?
If you enroll through the website at http://unex.uci.edu you will receive a confirmation email from the Student Services office with information regarding the steps needed to create your login and password, URL to access your course, and the enrollment key to enter your course.

If you have faxed or telephoned your enrollment, you will receive by U.S. mail a confirmation of your course enrollment. On that confirmation you will find the information regarding access to your online course.

What is an enrollment key?
An enrollment key is required only for the first time that you enter your online course. Your enrollment key will be given at the same time as the information regarding your course access.

Will the platform for online courses be changing continually every quarter?
There will be changes periodically. Changes occur mainly as a result of student and instructor feedback to our website. This is done to maximize the tools.

Is my online course an instructor led course?
Like a traditional course, your online course has an instructor that will conduct the course by giving assignments, answering questions, leading discussions and assigning grades.

Can I get a degree online?
At this time, you can only receive a Master’s degree in Criminology, Law and Society.

Students intending to transfer UC Irvine Extension course credit for a degree at another college or university should verify acceptance of the course with that institution.

What kind of grade options do I have?
The grading options are exactly the same as that of classroom courses.

Who do I contact if I am having problems with the instructor?
Please contact the DLC office at (949) 824-7613 or unex-online@uci.edu. Your instructor should be very explicit on the course syllabus or welcome message as to their availability. If the instructor is going out of town or will be away from the computer for an extended period of time, he/she must notify the class.

Why do I get emails of the discussion forum postings?
If you are receiving emails from the discussion forums, you are subscribed to that particular forum. You can change this option by going to the forums sections on the left side of the course site under Activities. By selecting forum you will be able to see all the forums created and to turn on/off the subscription function. There maybe a forum that you will not be able to change. More than likely, that will be a place where the instructor will post announcements.

I like getting the forum subscribed emails, but the responses I made are not on the course web site.
If you prefer to receive the subscribed emails from the forum, please do not reply to the email directly, but post your reply to the specific forum where the posting originated. This will ensure that others, including your instructor, will see your reply or comment.

I am confused and frustrated, I can’t seem to find my way around the website, what can I do?
Call us at (949) 824-7613. We will be happy to walk you through the tools and show you everything you need to know.