

Blue Marble University

Doctor of Science (D.Sc.) Instructional Design and Technology

Curriculum and Course Descriptions (Updated and Revised September 1, 2017)

(3 year 100% Online Program)

We offer one of the classiest programs in Instructional Technology you will come across. Really!! We filled our program with the study of useful tools you can use. Complete our program and you can go anywhere to design curricula and to deploy an e-learning or distance learning educational platform, or easily serve as lead administrator at the university, corporate, or K-12 (State Education Department) level. Our online lab will require you to actually design one or more courses and deploy them on an e-learning platform. And we have some fun diving deep into 3D Virtual Worlds as a means to create student interest in courses. In addition, all students are required to create an Online Portfolio, professionally showcasing their education, research, accomplishments, and other interests.

We view Instructional Technology as serving as a bridge between computer science and education. Yes, you can find many programs that avoid computer science courses altogether. We don't. We believe that true cutting edge educators, at least with respect to Instructional Technology, have to have a foundation in computer science if for no other reason than to communicate intelligently with web masters, your employer's technical department, and computer engineers that may be developing your programs or platforms.

But don't worry, we know you are not engineers, but rather educators. Our computer science courses won't kill you and will give you a world of confidence.

We designed this program ourselves because having created our virtual university from scratch, we know what tools you need to have to really be successful in the field of instructional technology....Really!!

In this program, courses are taken sequentially for approximately a 1 month period.

We operate on a trimester schedule, which means that our academic year is divided into 3 segments of 4 months each. In each 4 month period, students take three courses in sequence, lasting about 1 month each. Therefore, for any approximate one month period, a student will be studying one course. We feel that studying one course per month is the best way to achieve in depth consideration of the subject material.

No credits for prior education or work are issued; each student must complete our full curriculum.

TOTAL: 72 TRIMESTER CREDITS (Equivalent to the USA Minimum Requirement for a Doctoral Degree)

Year	Term	Course Title and Description
1	1	Online Portfolio (1): Introduction to Blogging and the Creation of the Students Digital Portfolio of Accomplishments, Education, and Interests. The creation of a personal professional digital identity is required of all students at Blue Marble University. Instructor led course teaching the basics of Wordpress. Students begin immediately working on their own website, setting up, adding pages and posts, and learning the basics of how to use a Wordpress site.
		Introduction to Instructional Technology: Survey course designed to demonstrate the current state of development of instructional technology. The course covers Educational Technology trends, the concept of “student specific education”, newest approaches to education technology and instructional design as demonstrated by various websites, references to technology tools, reviews of the major providers of educational technology for schools and colleges, paid vs free systems and software, developments in open source learning management systems, and single course instructional design methods. This is Part I of two courses, Part II being Introduction to Instructional Technology Lab , which follows this course in sequence
		Introduction to Instructional Technology Lab: This course is a continuation of <i>Introduction to Instructional Technology</i> , Part II being a Laboratory in which students must design and present their own complete digital course.
1	2	Operating Systems: This course focuses on the software operating systems that run today’s personal computers. Emphasis will be placed on commands, functions, and terminology through practical instruction in the installation, configuration, and upgrade of operating systems.
		Programming Concepts: For non-computer science students, this course provides the student with an introduction to the fundamentals of computer problems solving and programming. Students are introduced to structured and object oriented programming concepts in a language independent manner. Basic programming concepts, specific control structures, and object oriented design are explored. Study is simplified using an online programming environment such as Alice. Use of Java Script is studied. Data bases are explored.
		Cloud Computing and Web-Based Applications: How cloud computing and web based applications can be used and contribute to a learning platform. Also included is a study of Mobile Apps.
1	3	Using Video: Video production is big both on the internet and of course in education. In this course, we look at some hot topics in creating and using video, and some really good things one can do with video. Although we look at the up and coming Virtual Reality and 360° Video at this time in rapid development, we concentrate on: (1) Posting videos to Youtube; (2) Video conversion; (3) Creating a Screencast. Other topics may be included.
		Instructional Technology Platforms: Open technology vs. Commercially available platforms are compared and studied in depth. E-learning and distance learning are compared, including asynchronous and synchronous learning.
		Fundamentals of Course Design: The courseware development process is examined, with emphasis on designing courses with interactive technology for more interesting presentations. Adaptive Software. and Creation of Online “labs” may be included. Content varies annually.

Year	Term	Course Title and Description
2	1	Gaming: The increased convergence of gaming tools with course design tools to create an exciting learning environment.
		Open Instructional Design Lab: Content will vary from year to year, the course is intended to include practice with gaming design tools. Other lab activities as directed by Instructor.
		E-learning Platforms for K-12: Platforms specific to Primary and Secondary education are reviewed.
2	2	Blog Platforms for College Distance Learning: Open and less restrictive platforms are examined in relation to asynchronous style of learning for higher education.
		Learning Management Systems Lab 1: In this lab the student will use an actual instructional technology platform for a full deployment of a Learning Management System. The purpose of the lab is to give hands on experience with implementing a complete system for a school, college, or other institution. The platform selected may change from year to year, but would always include a consideration of Wordpress.
		Learning Management Systems Lab 2: Continues from Lab 1, and the students will present their accomplishments on their Online Portfolio.
2	3	Virtual Worlds (1): History, Current Models, and New Creations: Discover virtual worlds using current virtual environments tools, such as Second Life. Featured topics include navigation, camera controls, object design and texturing, gestures, animations, sounds, basic use of tools and scripts. Using an activity-based learning approach, students create 3D virtual world content. Web based and software based worlds will be explored. Students will work on various projects including formulations designed to simplify the rapid deployment of virtual worlds into education web sites. Students will participate in actual creativity.
		Virtual Worlds (2): A continuation of (1)
		Leadership and Management: We cover a diverse range of topics concerning educational leadership and management tools. The Learning Environment: What is it and how is it enhanced using telecommunications and multimedia. Best Instructional Practices: often overlooked in other programs, we examine instructional practices as presented in the literature, and also via exemplary schools. Emphasis is placed on goals and learning assessments, and evaluating proficiency. Also investigated are emerging changes in education relating to "seat time" vs "proficiency evaluation", the changing role of accreditation, and Alternative Education Models. The US Government role via ConnectEd.
3	1	Research Methodology and Writing: Thesis preparation. Techniques for literature research are reviewed in preparation for independent work to be done by the student. We also prepare for finalization of the Online Portfolio, the student's digital presentation of accomplishments, education, research, and other interests published to the internet, to which the dissertation (thesis) will be also published.
		Select and Outline Thesis Topic
		Dissertation Preparation I

Year	Term	Course Title and Description
3	2	Dissertation Preparation II
	3	Final Dissertation Preparation and Completion of Online Portfolio

Credits: Each of the above courses (with the exception of Final Dissertation Presentation and Completion of Online Portfolio which is 6 credits) consists of 3 trimester credits each. The program comprises 72 trimester credits, and consequently is equivalent to the minimum 60 semester credits required for a doctoral degree from a USA regionally accredited college or university. Upon completion, and for a nominal fee, graduates will be able to obtain a Certificate of Equivalency from a professional *foreign education* credentials evaluation service.