

## **Master of Science in Virtual Education**

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To address the reality that the field of Education can greatly benefit from the contributions of professionals being trained in other areas of knowledge, it is essential for educators to take an active role in open, interdisciplinary exchange. With that in mind, Broward International University offers several concentrations within its MSc in Virtual Education program, allowing students to choose from different types of elective courses and tailor their studies to their specific career goals.

The available academic concentrations were chosen based on today's job-market demand and crafted to prepare students to take on specialized responsibilities within each area. The Master of Science in Virtual Education consists of 24 semester credits of foundational distance-education courses (core courses) plus 12 semester credits of specialized courses that make up the selected concentration in an exceptional way. Please note that concentrations are not listed on the diploma, but they will appear in detail on the student's Academic Record. Below is the standard MSc in Virtual Education and the MSc in Virtual Education with its respective concentrations, which are currently available.

### **Program Objective**

Broward International University (BIU)'s 100% online Master of Science in Virtual Education is designed to provide robust theoretical preparation in high-impact topics in education while fostering practical, technology-driven skills that can be used to meet the challenges of a constantly evolving distance teaching-and-learning environment. Students will embrace the appropriate use of technology as a learning tool and will actively work to apply it to expand educational opportunities and strengthen academic performance. Special emphasis is placed on building students' knowledge and skills in virtual education, instructional media, instructional design, virtual learning platforms, cloud-based learning environments, and virtual learning tools, among other resources.

### **Program Description**

The program focuses on the role that new technologies play in the development and the transformation of virtual education theory and practice worldwide in the 21st century. Students will learn to build websites and create online assessments, develop an institutional strategy for virtual learning, and help learners strengthen online study skills. They will also have the opportunity to explore a range of conceptual ideas; for example, how the digital environment changes the way we build knowledge, the politics of virtual learning, and the

the digital era, and the ways video games may influence education and postsecondary training. The primary audience for this degree program includes professionals in teaching and administration; media and information specialists; trainers (in government, corporate settings, management, and supervision); instructional technologists; curriculum developers; staff development specialists; and coordinators of distance-learning programs with foundational experience using educational technology or virtual learning.

### **Course Methodology**

Our learning approach is flexible, adapts to every learning style, is fully online, and is delivered through a blend of live sessions and group and individual self-paced activities that are strongly case-study driven. All live sessions are recorded and made available for students to replay (even if they weren't able to attend), giving the program a high level of flexibility.

Our faculty—all of whom hold doctoral degrees and bring strong industry experience—teach theory through real-world case studies drawn from actual companies and institutions, where students apply what they've learned. The combination of asynchronous discussion forums and live chats helps not only build a problem-solving mindset, but also bring situated learning to life in the volatile, uncertain, complex, and ambiguous environments that define the Fourth Industrial Revolution we're navigating as a society.

These spaces for dialogue and exchange foster an active-learning approach and strong synergy among classmates that leads to the development of soft skills and the building of a professional network (networking) of incalculable value, strengthening our professional profile with a community of peers who hold a master's degree and with whom we've built a trusted professional relationship. As a result, our master's students build their learning through real-world cases, with solid theoretical approaches, in a flexible online environment—developing soft skills and integrating a network of professionals that will support them throughout their entire career.

|                         | Nombre del curso                                                   | Código  | Créditos |
|-------------------------|--------------------------------------------------------------------|---------|----------|
| 1º<br>Período Académico | Technology Development and Integration in Digital Learning Systems | VED6011 | 3        |
|                         | Foundations of E-Learning and Digital Instruction                  | VED6012 | 3        |
| 2º<br>Período Académico | Assessment Design and Evaluation in Online and Distance Education  | VED6021 | 3        |
|                         | Emerging Technologies and Innovation in Digital Education (*)      | VED6022 | 3        |
| 3º<br>Período Académico | Virtual Learning Platforms (*)                                     | VED6031 | 3        |
|                         | Learning Environment and Diversity                                 | VED6032 | 3        |
| 4º<br>Período Académico | Research Methodology                                               | VED6052 | 3        |
|                         | Curriculum Design for Online and Digital Learning                  | VED6041 | 3        |
| 5º<br>Período Académico | Innovation Ecosystems in Digital Education (*)                     | VED6051 | 3        |
|                         | Advanced Instructional Methods and Learning Technologies           | VED6042 | 3        |
| 6º<br>Período Académico | Cloud Computing Applications in Digital Education (*)              | VED6061 | 3        |
|                         | Thesis                                                             | VED6062 | 3        |

(\*) Courses to be replaced by the set of Concentration courses related to the chosen concentration.



**VED6011 - Technology Development and Integration in Digital Learning Systems:** The primary goal of this course is to provide an overview of virtual education. From the very beginning, students will gain a clear understanding of how online learning has transformed the teaching process and how it will shape the future. We will examine every level of the distance education system, giving students the chance to develop a broad perspective on the many applications of virtual education.

**VED6012 - Foundations of E-Learning and Digital Instruction:** Online learning (e-learning) in the 21st century offers a coherent, comprehensive, and evidence-based framework for understanding how people learn digitally. This course examines the technological, pedagogical, and organizational implications of e-learning systems. It provides practical models that help students tap into the full potential of e-learning; in addition, it places special emphasis on understanding these technologies through an educational lens.

**VED6021 - Assessment Design and Evaluation in Online and Distance Education:** Information and communication technologies—and their impact on learning over the past decade—have profoundly reshaped the paradigms, contexts, and values of education at every level. The professionalization of tools and practices, along with the strengthening of academic and technical expertise, has remained a major ongoing challenge in recent years. This course examines developments in open, distance, and online learning through new information and communication technologies, methodologies, and tools—innovations that have significantly transformed educational paradigms, settings, and values across all levels of education during the last decade.

**VED6022 - Emerging Technologies and Innovation in Digital Education:** Web technologies are having a major impact on commerce, media, business, and education overall. Starting with the "edu-blogsphere," this course focuses on the effect web technologies have in educational settings. Students will explore the potential of blogs, media-sharing services and other social platforms that, while not designed specifically for e-learning, can be used to support learners and create new, engaging opportunities where learning becomes far more personal, social, and flexible.

**VED6031 - Virtual Learning Platforms:** The digital revolution has arrived in education, with more and more classrooms connected in the virtual world. The knowledge revolution has reshaped work, home life, and daily living—and it must reshape schools as well. To keep pace with a global, technology-driven culture, we need to rethink how we educate the next generation, or our schools will fall behind. This course focuses on the full range of virtual learning platforms that are bringing schools into the digital age and expanding education beyond the school building. Students will gain a forward-looking view of education that reaches beyond the classroom walls and includes online social networks, distance learning with access from anywhere for anyone, digital models for learning at home, game-based learning environments, and much more.

**VED6032 - Learning Environment and Diversity:** This course, grounded in both research and real-world practice, shows how virtual learning environments could become a key part of education's future. As scholars begin using spaces like Second Life to reach a broader community of learners, this course presents a different—yet proven—approach to delivering content over the Internet through virtual learning environments with the potential to transform education. By covering a wide range of applications—from commercial multiplayer video games to online learning—students will discover how powerful these environments can be in education, and how data-informed practice is likely to be adopted almost universally, even among those who are currently reluctant to use virtual learning.

**VED6052 - Research Methodology:** In this course, students will develop a scientific research project that will serve as the foundation for a Master's Thesis. To do so, they must rigorously follow the applicable steps of the scientific method, which includes the portion of the research process related to conceptualization and ethics, as well as a description of the qualitative, quantitative, or mixed scientific approach to be used. Specifically, students will identify and define a problem of interest that warrants the pursuit of a

solutions and/or answers to problem-related questions that have been developed to improve understanding of it; they will address the problem and/or related questions by conducting background research that gathers information to become familiar with what is currently known about the problem and/or the proposed related questions, including possible answers; they will establish the parameters that will be used to study and understand the selected problem and/or the questions posed.

They will conceptualize and design the scientific method that will be used to carry out the study. They will plan and present a clear, thorough research proposal that includes all of the elements above and, in addition, a detailed description of the procedures to be followed during the fieldwork phase, as well as the population expected to participate and/or the sample to be collected for future analyses, and a description of the method for evaluating the information obtained. Students must follow the most up-to-date version of APA guidelines when writing their research proposal. The student must successfully complete this requirement with a grade of B or higher in order to graduate.

**VED6041 - Curriculum Design for Online and Digital Learning:** As virtual education expands as a way to enhance the learning experience and create opportunities to reach new communities, it becomes essential to develop an innovative, high-quality curriculum. This course takes an in-depth look at the need for both quality-improvement strategies—through research, development, and evaluation—and quality-assurance strategies focused on standards and guidance. It also teaches how to build an online education curriculum that strengthens learning.

**VED6051 - Innovation Ecosystems in Digital Education:** The focus of this course is the interaction between the learner and a set of interconnected resources that are not tied to any physical or virtual location. This context belongs to the individual and is created through their interactions with the world. Students will examine the learner-centered “Resource Ecology” context model as a framework for designing technology-supported learning environments and for understanding the importance of adapting available resources to each learner’s needs. This interdisciplinary course draws on fields such as geography, anthropology, psychology, education, and computer science to identify the dynamics and greatest potential of teacher–student interaction within an ongoing learning process and across a variety of settings.

**VED6042 - Advanced Instructional Methods and Learning Technologies:** This course explores advanced teaching and learning methods through the use of educational technologies and collaborative digital tools. Students will learn to integrate multimedia resources and digital learning strategies to enhance interaction, collaboration, and learning experiences.

**VED6061 - Cloud Computing Applications in Digital Education:** In this course, students will examine how virtual education has evolved worldwide, with the goal of comparing different experiences and forming their own perspective on the current state of online learning. Starting with a definition of cloud computing—why it exists and what its advantages and disadvantages are—students will explore the full range of cloud-platform features, including infrastructure, services, applications, and security. They will assess the value of cloud computing, including licensing models and ROI, and gain an understanding of abstraction, partitioning, virtualization, capacity planning, and various scheduling solutions. The class will discuss the use of web services from Google®, Amazon® and Microsoft®, explore cloud-based communication methods such as instant messaging, Twitter®, Google Buzz and Facebook®, and learn how cloud services are reshaping mobile phones—and how mobile technology, in turn, is influencing the cloud.

**VED6062 - Thesis:** In this course, students are expected to continue and complete their Master's Thesis. To do so, students must systematically follow the scientific method described in their previously completed and approved research project. During this final phase, the student must carry out the approved procedure to conduct fieldwork, which may be repeated as needed to ensure that the data collected are accurate and reliable at the time they are gathered.

Gather the information obtained through experimentation and/or observation. Carefully document all collected data (observations, measurements, survey information, and other predefined data) according to the variables being evaluated. Analyze the recorded data using the appropriate methodology; interpret the results with a primary focus on proposing a solution to the selected problem and/or answering the related questions that were posed, while remaining open to addressing other aspects of the issue that were not previously identified as objectives but emerge from interpreting the data obtained.

Draw conclusions based on the experimental results and provide recommendations that point to relevant future scientific research. Students must follow the most up-to-date APA guidelines when writing their Master's Thesis and coordinate a final oral presentation, which should be considered an integral part of the research project. The student must successfully meet this requirement with a grade of B or higher in order to graduate.