

## Master of Science in Virtual Education

### Master of Science in Virtual Education

To ensure that the field of education fully benefits from the insights and contributions of professionals trained in other disciplines, it is essential for educators to engage in open, active interdisciplinary collaboration. With this in mind, Broward International University offers several concentrations within its MSc in Virtual Education program, allowing students to choose from a range of elective courses and tailor the curriculum to their specific career goals.

The available academic concentrations have been selected based on current workforce demand and designed to prepare students to take on specialized responsibilities within their chosen area. The Master of Science in Virtual Education program includes 24 semester credits of foundational distance education coursework (core courses), plus 12 semester credits of specialized courses that make up the selected concentration. Please note that concentrations are not listed on the diploma; however, they will appear in detail on the student's academic transcript. Below you'll find the standard MSc in Virtual Education and the MSc in Virtual Education with the concentrations we currently offer.

### Program Objective

Broward International University's (BIU) 100% online Master of Science in Virtual Education program is designed to provide broad theoretical preparation in highly relevant education topics while also fostering practical, technology-based skills that can be used to meet the challenges of a constantly evolving distance teaching-and-learning environment. Students will learn to use technology appropriately as a learning tool and will actively work to apply it to expand educational opportunities and improve academic performance. The program places special emphasis on strengthening 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 Overview

This program centers on how emerging technologies are shaping—and transforming—the theory and practice of virtual education worldwide in the 21st century. Students will learn to build websites and create online assessments, develop an institution-wide strategy for virtual learning, and help learners strengthen effective online study skills. They will also have the chance to explore a range of conceptual topics—for example, how the digital environment changes the way we construct knowledge, the politics of virtual learning, and the

the digital era and the ways video games could influence education and postsecondary training. This program is primarily designed for education and administrative professionals, media and information specialists, trainers (in government and corporate settings, including managers and supervisors), instructional technologists, curriculum developers, staff development specialists, and distance-learning program coordinators with foundational experience using educational technology or virtual learning.

### **Course Methodology**


Our learning methodology is flexible, designed to fit every learning style, fully online, and delivered through a blend of live sessions and asynchronous group and individual activities grounded in real case studies. 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 degree of flexibility.

Our faculty—all of whom hold doctoral degrees and bring strong industry experience—approach theory through case studies drawn from real companies and institutions, where students apply what they've learned. The combination of asynchronous discussion forums and live chats not only builds a problem-solving mindset, but also brings situated learning to life in the volatile, uncertain, complex, and ambiguous environments characteristic of the fourth industrial revolution our society is living through.

These spaces for dialogue and exchange foster an active-learning approach and a strong synergy with classmates, which in turn helps develop essential soft skills—especially the ability to build valuable professional connections (networking). This enriches our professional profile by adding a trusted peer network of fellow master's-level graduates with whom we've built solid, confidence-based working relationships. As a result, our master's students shape their learning through real-world cases, grounded in strong theoretical frameworks and delivered in a flexible online environment—strengthening soft skills while becoming part of a professional network that will support them throughout their entire career.

	Course name	Code	Credits
1 <sup>o</sup> Academic period	Development and Integration of Technologies in Distance and Virtual Education	VED6011	3
	Fundamentals of the E-Learning Learning Modality (*)	VED6012	3
2 <sup>o</sup> Academic period	Virtual Education and E-Learning	VED6021	3
	Virtual Education and Technology (*)	VED6022	3
3 <sup>o</sup> Academic period	Virtual Learning Platforms	VED6031	3
	Learning Environment and Diversity	VED6032	3
4 <sup>o</sup> Academic period	Curriculum Design for Virtual Education	VED6041	3
	Web 2.0 Distance Learning (*)	VED6042	3
5 <sup>o</sup> Academic period	The Ecosystem of Innovation and Knowledge (*)	VED6051	3
	Research Methodology	VED6052	3
6 <sup>o</sup> Academic period	Cloud Learning Environment, and Comparative Study	VED6061	3
	Thesis	VED6062	3

(\*) Courses that replace the set of elective courses related to the standard MS in Virtual Education.



**VED6011 - Development and Integration of Technologies in Distance and Virtual Education:** 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 virtual 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 how virtual education can be applied.

**VED6012 - Fundamentals of the E-Learning Learning Modality:** In the 21st century, online learning (e-learning) offers a clear, comprehensive, and evidence-based framework for understanding how people learn at a distance. This course examines the technological, instructional, and organizational implications of e-learning systems. It also provides practical models that help students make the most of e-learning's full potential, with special emphasis on understanding these technologies through an educational lens.

**VED6021 - Virtual Education and E-Learning:** Over the last decade, information and communication technologies—and their influence on how we learn—have fundamentally reshaped the paradigms, settings, and values of education at every level. The growing 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 progress in open, distance, and online learning through new information and communication technologies, as well as the methods and tools that have profoundly transformed the paradigms, contexts, and values of education across all levels in the past decade.

**VED6022 - Virtual Education and Technology:** Web technologies are having a major impact on commerce, media, business, and education overall. Beginning with the “edu-blogsphere,” this course focuses on how web technologies are shaping education. Students will explore the potential of blogs, media-sharing services, and other social platforms that—while not built specifically for e-learning—can be used to support learners and create fresh, engaging opportunities where learning becomes far more personal, social, and flexible.

**VED6031 - Virtual Learning Platforms:** The digital revolution has made its way into education, with more and more classrooms connected in the virtual world. The knowledge revolution has reshaped jobs, homes, and everyday life—and schools must evolve, too. To keep pace with a global, tech-driven culture, we need to rethink how we educate the next generation, or our schools will fall behind. This course explores the full range of virtual learning platforms that are moving schools into the digital age and expanding education beyond the school building. Students will gain a forward-looking view of education that extends past classroom walls and includes online social networks, distance learning with access from anywhere for anyone, digital models for homeschooling, game-based learning environments, and much more.

**VED6032 - Learning Environment and Diversity:** Grounded in both research and real-world practice, this course shows how virtual learning environments could shape the future of education. As educators begin using spaces like Second Life to reach a broader student audience, the course presents a different—and proven—approach to delivering content online through virtual learning environments with the power to transform education. Covering a wide range of uses, from commercial multiplayer video games to online learning, students will discover just how impactful these environments can be in education—and how data-informed practice is likely to be adopted almost universally, even by those who are currently hesitant to embrace virtual learning.

**VED6041 - Curriculum Design for Virtual Education:** As virtual education continues to expand—enhancing the learning experience and opening doors to new communities—it will be essential to develop an innovative, high-quality curriculum.

In this course, we take an in-depth look at why quality-improvement strategies—through research, development, and evaluation—are essential, along with quality-assurance strategies focused on standards and guidance. You'll also learn how to build an online education curriculum designed to strengthen learning outcomes.

**VED6042 - Web 2.0 Distance Learning:** This course is packed with practical tips and insights on using Web 2.0 tools, with a special focus on helping participants learn through collaboration. Students will explore why web searches matter for finding information about learner behavior and effective teaching strategies. They'll also learn to use collaborative, shareable multimedia materials—including graphics, sidebars, screenshots, and brochures. Step-by-step instructions will be provided for a variety of tools, along with suggestions for how to apply them in real settings. A "Tools Guide" will include the URLs for every Web 2.0 tool used throughout the course.

**VED6051 - The Ecosystem of Innovation and Knowledge:** This course focuses on the interaction between the learner and a network of interconnected resources that are not tied to any single physical or virtual location. This context is personal—it belongs to each individual and is shaped 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 why it is essential to align available resources with each learner's needs. Drawing on fields such as geography, anthropology, psychology, education, and computer science, this interdisciplinary course explores the dynamics—and the full potential—of teacher-student interaction within an ongoing learning process across a range of settings.

**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, including the parts of the research process related to conceptualization and ethics, as well as a clear description of the qualitative, quantitative, or mixed-method approach to be used. Specifically, students will identify and define a problem of interest that warrants seeking a solution and/or answers to problem-related questions designed to deepen understanding; address the problem and/or related questions by conducting a background review that gathers information on what is currently known, including possible answers; and establish the parameters that will be used to study and better understand the selected problem and/or the questions posed.

They will conceptualize and design the scientific method to 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 fieldwork, the population expected to participate and/or the sample to be collected for future analysis, and the method that will be used to evaluate the information obtained. Students must follow the most up-to-date version of the standards

APA formatting for writing the research project. The student must successfully complete this requirement with a grade of B or higher in order to graduate.

**VED6061 - Cloud Learning Environment, and Comparative Study:** In this course, students will examine the development of virtual education worldwide, with the goal of comparing experiences and forming their own perspective on the current state of online learning. Beginning with a definition of cloud computing—why it exists, along with its advantages and disadvantages—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 will build an understanding of abstraction, partitioning, virtualization, capacity planning, and various scheduling solutions. The course will include discussion of web services from Google®, Amazon®, and Microsoft®; exploration of cloud communication methods such as instant messaging, Twitter®, Google Buzz, and Facebook®; and learning how cloud services are changing mobile phones—and how mobile phones are, in turn, reshaping cloud services.

**VED6062 - Thesis:** In this course, students are expected to continue and complete their Master’s Thesis. To do so, they must systematically follow the scientific method outlined 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 the data collected are accurate and reliable at the time of collection.

Compile the information obtained through experimentation and/or observation. Carefully document all collected data (observations, measurements, survey responses, and other predefined data) based on 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 problem that were not previously identified as objectives but emerge from interpreting the data obtained.

Draw conclusions from the experimental results and present recommendations that point to relevant new 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 complete this requirement with a grade of B or higher to graduate.