Master of Science in Digital Education

Study Plan

The Master's program in Digital Education is a full-time study for two academic years (4 semesters). To obtain the master's degree, learners must complete a minimum of 39 credit hours.

To obtain a master's degree, the student must complete 10 accredited courses and complete the master's thesis, which are distributed as follows:

Core Courses (27 credit hours)

Core courses are mandatory courses that all learners must study and pass in order to graduate. They are classified among the program's compulsory courses. With regard to the master's program in digital education, 7 core courses have been identified with 3 hours and 3 courses with two credit hours for each course (27) credit hours.

Elective courses (3 credit hours).

The electives recommended for students in the master's program in digital education include 3 courses, with (3) credit hours for each course, all related to education and its design, the student must choose to study one course at a rate of (3) credit hours from among these courses. Note that 2 of these courses can be studied / or equivalent courses can be studied in the departments of the Faculty of Graduate Studies such as: Department of Learning Disabilities, Department of Innovation and Technology Management, and Department of Next Generation Computing. The appropriate course is chosen with the approval of the academic supervisor/advisor, and students are encouraged to review the academic advisor from the faculty members of the department to link these courses to an idea on a topic of particular interest to the student and intends to address in his master's thesis project.

Master's thesis project (9 credit hours).

The Master's thesis provides opportunities for students to plan, complete, interpret and report on research. Dissertation projects must not have been previously published, and must be conducted and written under the supervision of a faculty member of the concerned department or university (the supervisory committee is selected according to the regulations approved by the Arabian Gulf University).

Study plan for a Master's of Science in Digital Education

Semester	Course No.	Course Name	Credit Hours		
			Theory	Practical	Total
First	DE 600	Digital Education, Foundations and Theories	2	1	3
	DE 601	Managing Digital Transformation	2	1	3
	DE 602	Emerging Digital Learning Technologies	2	1	3
	GSES520	Introduction of Educational Statistics	1	1	2
	Total Hours of Semester I		**7**	**4**	11
Second	DE 603	Methods of Teaching Digital Education	2	1	3
	DE 604	Assessment in Digital Education	1	1	3
	GSES621	Research Methods Education	2	1	3
	DE 605	Innovation in Digital Education	1	1	1
	Total Credit Hours of Semester II		**7**	**4**	11
Third	GSES620	Inferential Statistics and its Applications	1	1	2
	DE 606	Artificial Intelligence in Digital Education	2	1	3
	DE 607 DE 608 DE 610	Elective Course	2	1	3
	DE 680	Master Thesis Project	-	3	3
	Total Credit Hours of Semester III		**5**	**6**	11

	DE 680	Master Thesis Project	-	6	6
	Total Credit Hours of Semester IV		**1**	**10**	11
The Total Credit Hours for the Master's Degree					39

Digital Education Masters Courses

Corse Code	Compulsory/Core y Courses	Credit Hours
DE 600	Digital Education, Foundations and Theories	3
DE 601	Managing Digital Transformation	3
DE 602	Emerging Digital Learning Technologies	3
GSES520	Introduction of Educational Statistics	2
DE 603	Assessment in Digital Education	3
DE 604	Methods of Teaching Digital Education	2
GSES621	Research Methods in Digital Education	3
DE 605	Innovation in Digital Education	3
DE 606	Artificial Intelligence in Digital Education	3
GSES620	Inferential Statistics and its Applications	2
Total		27

Course Code	Elective Courses (3 Courses)	Credit Hours
DE 607	Design of Digital Education Content	3
DE 608	Designing Digital Learning Environments	3
DE 610	Digital Teaching Strategies for Special Needs	3
Total		3

Course Code	Master Thesis Project	Credit Hours
DE 680	Master Thesis Project	9
Total Credit Hours		39

Course Descriptions

Course Title	Course Description
Digital Education, Foundations and Theories DE 600	Theoretical and philosophical foundations of digital education and the technologies used, exploration and discussion of digital learning systems, an overview of emerging technologies and their importance in digital education including the Internet, virtual classrooms and their management systems; and examining effective teaching and learning techniques within these systems.
Managing Digital Transformation DE 601	Using technology as a competitive advantage in digital education environments; The course discusses current trends in education based on cloud computing and artificial intelligence and their impact on education. This is done by studying digital tools to design, develop and evaluate digital education applications.
Emerging Digital Learning Technologies DE 602	Emerging digital learning technologies, the production of educational materials using emerging learning technologies, the principles of designing basic instructional systems and their practice in traditional, integrated or web-based learning environments, design, develop, implement/distribute and evaluate authentic learning experiences.
Introduction of Educational Statistics GSES520	Digital analysis of data and information, the role of the data analyst, and the tools used to perform daily jobs., understanding of the data system and the basics of data analysis and number, such as data collection or data search. You will then learn the soft skills required to effectively connect your data to the stakeholders, and master the skills that can give the student option to become a decision -making maker that depends on data and analyzes it digitally.
Methods of Teaching Digital Education DE 603	Methods and approaches of teaching digital education, exploring digital tools used in teaching and learning in the digital age, theoretical and practical guidance for improving teaching quality and learning outcomes in undergraduate, blended, or fully online learning environments. The teaching of the course depends on the very famous books in this field, and a specially prepared book will be employed to teach the course.

Assessment in Digital Education DE 604	Develop strategies and measures for the evaluation of digital educational systems and material. examine various approaches to the assessment of digital learning. explore the concept of assessment as a design tool that allows a student to build a course centered on student learning. In this course, the student will explore a design process called the assessment loop, looking at the ways clear learning outcomes, thoughtfully designed assessments, and analysis of assessment results can help engage the students and build a better course.
Research Methods in Education GSES621	Plan, design and implement an independent research project for a master's thesis in digital education. This course enables the student to formulate a research question and develop a detailed research plan in the field of digital education. The course also gives the student basic skills in research design and empowers him through data collection and analysis, and the main methods of working with quantitative and qualitative research data.
Innovation in Digital Education DE 605	Innovation in digital education, issues related to: educational innovation, innovation in teaching strategies that meet the needs of learners in the digital age, the role of technology in educational innovation, examples and models in educational innovation, logical and methodological tools for educational innovation, choosing the most appropriate methods and models of educational innovation Finally, the assessment of educational innovation and its suitability for the educational situation.
Artificial Intelligence in Digital Education DE 606	The concept of artificial intelligence, AI role and importance in the fields of designing and developing academic courses digitally, in addition to the skills of embedding artificial intelligence in the educational practices of teachers and the learning of their students, and covers basic topics such as, what is artificial intelligence, its history, and its applications in education, design thinking, critical and creative thinking, decision making Ethical, bias awareness.
Inferential Statistics and its Applications GSES620	The course aimed at helping the student to acquire the quantitative skills required for conducting the master thesis research. Mathematical basis of statistics and computational procedures are not emphasized. Rather, they are taught to the extent that they help the student in understanding statistical concepts and methods. Complex statistical derivations are avoided by using, among other things, Monte Carlo methods via such software as Resampling Stats.

Elective Courses

Course Title	Course Description
Design of Digital Education Content DE 607	Digital education, material design and development, presentation of digital education design models and practical applications for transforming face-to-face teaching into digital education, standards for designing digital education content in light of appropriate digital learning methodologies; Digital content development skills as well as the ability to use the methodological design of digital education content.
Designing Digital Learning Environments DE 608	The different types of Learning Management Systems, Virtual Learning Environments, and Learning Content Management Systems; proprietary and open-source learning management systems; and solutions for limited internet access, and practical training on how to design and develop these environments.
Digital Teaching Strategies for Special Needs DE 610	Principles for using Universal Design as a framework for designing and developing curricula for people with learning disabilities; Using digital technology to support the success of learners to meet the individual needs of students with disabilities with the aim of supporting educational independence and full participation in digital classroom environments to help determine how technology can be used to deliver dynamic instruction and engage learners.

Course Title	Course Description
Master Thesis Project DE 680	The master's thesis course runs over two full semesters and constitutes the final and closing assignment in the master's program in digital education. During this course, students will practice the research methods and approaches that have been studied practically, they will design and conduct an experimental study in the field of digital education design, and the final product will be presented in the form of a written report called the thesis /master's thesis according to the rules and regulations of the College of Graduate Studies in the Arabian Gulf University.