COURSE OUTLINE

"Universal Design and Production of Educational Materials in Special Education" (EDU695)

(1) GENERAL

SCHOOL	SCHOOL OF SOCIAL & HUMANITIES (LIMASSOL UNIVERSITY) & SCHOOL OF HEALTH AND WELFARE SCIENCES (WEST ATTICA UNIVERSITY)		
SECTION	DEPARTMENT OF EDUCATIONAL SCIENCES & DEPARTMENT OF BIOMEDICAL SCIENCES		
LEVEL OF STUDIES	MA		
COURSE CODE	**EDU 695**	**SEMESTER OF STUDY**	**Γ'**
COURSE TITLE	**Universal Design and Production of Educational Materials in Special Education**		
INDEPENDENT TEACHING ACTIVITIES *where credit is awarded for discrete parts of the course e.g. lectures, laboratory exercises, etc. If credit is awarded for the whole course, indicate the weekly teaching hours and the total number of credits*		**WEEKLY TEACHING HOURS**	**CREDIT UNITS**
LECTURES AND LABORATORY EXERCISES		3	10
Add rows if necessary. The teaching organisation and the teaching methods used are described in detail in (d).			
TYPE OF *general background, special background, specialization general knowledge, skills development*	*General*		
PREREQUISITE COURSES:	-		
LANGUAGE OF TEACHING AND EXAMINATION:	GREEK		
THE COURSE IS OFFERED TO STUDENTS	NO		
ELECTRONIC COURSE PAGE (URL)	https://moodle.uol.ac.cy/login/index.php		

(2) LEARNING OUTCOMES

Learning Outcomes *The learning outcomes of the course are described as the specific knowledge, skills and competences of an appropriate level that students will acquire after successful completion of the course.* *Consult Annex A* • *Description of the Level of Learning Outcomes for each cycle of study according to the Qualifications Framework of the European Higher Education Area* • *Descriptive Indicators for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Annex B* • *Learning Outcomes Writing Guide*
The course aims to develop knowledge and skills for the design and production of educational materials that meet the needs of all students, especially those with disabilities or other special educational needs. It focuses on the principles of Universal Design for Learning, which promotes an educational framework that makes education accessible and participatory, incorporating flexibility and personalisation.

Specifically, students after successful completion of the course will have acquired basic and sufficient knowledge about

- the Principles of Universal Design for Learning.
- the International Accessibility Standards and the relevant legislation.
- the design and development of adapted educational materials for students with disabilities and special educational needs.
- the creation of differentiated material, adapted to the needs of students, using multimedia, interactive videos and digital tools.
- the creation and evaluation of teaching scenarios, using digital tools.
- the use of AI tools for teachers in the creation of scenarios and differentiated activities.

General skills

Taking into account the general competences that the graduate should have acquired (as listed in the Diploma Supplement and listed below), which one(s) does the course aim at?

Search, analysis and synthesis of data and information, using the necessary technologies	*Project planning and management*
Adapting to new situations	*Respect for diversity and*
Decision-making	*Respect for the natural environment*
Autonomous work	*Demonstrate social, professional and ethical responsibility and sensitivity to gender issues*
Teamwork	*Exercise of criticism and self-criticism*
Working in an international environment	*Promoting free, creative and inductive thinking*
Working in an interdisciplinary environment	*.....*
Generating new research ideas	*Other...*
	.....

The course aims to:

- Search, analysis and synthesis of data and information, using the necessary technologies
- Adapting to new situations
- Autonomous work
- Teamwork
- Working in an interdisciplinary environment

(3) COURSE CONTENT

LECTURES - UNITS:

1. Universal Design for Learning (UDL).
In this section, reference will be made to the principles of universal design for learning, to the challenges that the teacher must face in order for the inclusive model of education to highlight its key features.

2. Accessibility and inclusion.
In this section we will extensively discuss the shortcomings of the educational material in the educational system and propose new experiential learning techniques, where the educational material will be responsive to all students. In addition, the need to redesign the educational material provided will be discussed.

3. Basic pedagogical principles of work projects (Project).
This module will explore the basic pedagogical principles of work projects and how they contribute dynamically to the enhancement of the educational process, creating a field of collaboration and continuous search for knowledge and information

4. Creative approaches and diversity awareness techniques in the school and wider environment.
In this section, emphasis will be placed on diversity awareness strategies and techniques, research and statistical data will be presented on the state of acceptance of diversity in all areas of social and political life, and effective approaches for the integration of the inclusive model of education in the educational system will be sought

5. Differentiated Teaching and Universal Design using New Technologies.

In this section, highlighting the use of new technologies in differentiated instruction and universal design will lead to safe conclusions and help in understanding the importance of new technologies in shaping an inclusive school for all students

6. Applying Learning Theories to instructional design.
In this section, the most basic learning theories will be mentioned and how their application has contributed to the formation of the instructional design, in order for the educational process to respond to the new conditions that prevail.

7. Artificial Intelligence and Special Education: Perspectives and Challenges.
This section will provide an extensive analysis of the applications of AI and the impact it can have on special education and training, while also highlighting the challenges created by the use of AI.

8. Production of Educational Material using Artificial Intelligence Tools (Chat GPT, Perplexity).
In this section, the role of AI tools in the production of educational material will be analysed and the strategic interventions that will help in their use for the benefit of the learning community will be presented. However, reference will also be made to the negative effects of the indiscriminate and unorthodox use of these tools.

9. AI tools for teachers I (Gamma, Suno ai music generator, Vidnoz).
In this section we will refer to digital AI tools for teachers (Gamma, Suno ai music generator, Vidnoz) and the possibilities they offer to improve the educational process, always for the benefit of the students.

10. AI tools for educators II (Canva, Magic School, Caracter AI).
In this section we will refer to the use of AI tools (Canva, Magic School, Caracter AI) used by teachers to improve the educational process and their importance in shaping a new framework of cooperation and interaction between students with disabilities.

11. Creating teaching scenarios using digital tools.
This section will analyse the use of digital tools in the creation of teaching scenarios by teachers, as well as the effects of these scenarios on the educational process and the participation of students with disabilities. Careful planning and the use of appropriate digital tools can radically change the design and creation of teaching scenarios. To begin with, digital tools such as Canva, Google Classroom, Padlet, Kahoot and many others provide countless possibilities for creating instructional scenarios. Through these digital tools, students develop skills and abilities such as autonomy, which helps them integrate more smoothly into the learning community.

12. Use and design of learning activities and educational scenarios.
This section will analyse the correct use and design of learning activities and educational scenarios by the teacher, the steps to be taken during the scenarios and activities, as well as the response and the expected results that the teacher should have from them. The effective educational process, depends largely on the design of learning activities and training scenarios by the individual teacher. In order for there to be universal acceptance and most importantly effective implementation of the activities and scenarios, the teacher must be aware of the requirements and steps for creating and designing them.

(4) TEACHING and LEARNING METHODS - EVALUATION

<table>
<tr><td>METHOD OF DELIVERY
Face-to-face, Distance learning, etc.</td><td>Distance</td></tr>
<tr><td>USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES
Use of ICT in Teaching, Laboratory Training, Communication with students</td><td>ICT and their use in education are the subject of the course and are therefore used extensively in Teaching, Laboratory Training, Communication with students.</td></tr>
<tr><td>ORGANISATION OF TEACHING
The way and methods of teaching are described in detail.
Lectures, Seminars, Laboratory Exercise, Field Exercise, Study & Analysis of Literature, Tutoring, Practical (Placement), Clinical Exercise, Artistic Workshop, Interactive teaching, Educational visits, Study visits, Project work, Writing work / assignments, Artistic creation, etc.

The student's hours of study for each learning activity and the hours of unguided study according to ECTS principles are indicated.</td><td>
<table>
<tr><th>Activity</th><th>Semester workload</th></tr>
<tr><td>Lectures</td><td>39</td></tr>
<tr><td>Laboratory exercises</td><td>13</td></tr>
<tr><td>Interactive Teaching</td><td>13</td></tr>
<tr><td>Study & Literature Analysis</td><td>26</td></tr>
<tr><td>Study preparation</td><td>26</td></tr>
<tr><td>Job Writing</td><td>36</td></tr>
<tr><td>Independent Study</td><td>47</td></tr>
<tr><td></td><td></td></tr>
<tr><td>Total</td><td>200</td></tr>
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<tr><td>STUDENT ASSESSMENT
Description of the evaluation process

Language of Evaluation, Evaluation Methods, Formative or Inferential, Multiple Choice Test, Multiple Choice Test, Short Answer Questions, Test Development Questions, Problem Solving, Written Work, Report, Oral Examination, Oral Examination, Public Presentation, Laboratory Work, Clinical Examination of a Patient, Artistic Interpretation, Other

Explicitly identified assessment criteria are stated and if and where they are accessible to students.</td><td>Weekly interactive activities (20% in total):On a weekly basis, students will have the opportunity to interact with the teacher, other students and/or other relevant stakeholders to complete certain activities. These activities are an integral part of the course and help the student understand and assimilate each week's material. The instructor will select 10 interactive activities prior to the start of the course that will count towards the final course grade, each worth 2% of the grade. The remaining interactive activities will be available for students to complete (but will not contribute to their final grade) to facilitate self-assessment and to aid in-depth learning.

Individual and/or collaborative work (30%): the instructor will assign the students an individual and/or collaborative project and will be evaluated according to the rubric of the project.

Final examination (50%): the final examination will assess the students' understanding of the learning objectives set for the course and their ability to apply their knowledge to real-life scenarios in the field of Special Education and New Technologies.</td></tr>
</table>

(5) RECOMMENDED-BIBLIOGRAPHY

- Suggested Bibliography:

Baidoo-Anu, D., Owusu Ansah, L. (2023).Education in the Era of Generative Artificial Intelligence (AI): Understanding the Potential Benefits of ChatGPT in Promoting Teaching and Learning, *Journal of AI 7*(1), DOI:10.61969/jai.1337500 .

Creely, E. (2023) *The possibilities, limitations, and dangers of generative AI in language learning and literacy practices*, November 2023, Conference: International Graduate Research Symposium 2023.

Holmes, W., Bialik, M., & Fadel, C. (2019). *Artificial intelligence in education: promises and implications for teaching and learning.*

Matsumoto, K. (2023). exploring Patterns of Generative AI Utilization in Education, *IIAI Letters on Informatics and Interdisciplinary Research* 4:1, DOI:10.52731/liir.v004.134.

Georgouli, A. (2015). *Artificial Intelligence* [Undergraduate textbook]. Kallipos, Open Academic Publications https://dx.doi.org/10.57713/kallipos-666 .

- Related scientific journals:

International Journal of Information *and* Learning Technology (IJILT) - Emerald Publishing.

Journal *of* Computer *Assisted* Learning (JCAL) - Wiley.

Journal of Research in Innovative *Teaching & Learning* (JRIT) - Emerald Publishing.

Computers & Education - Elsevier.

Computers & Education Open (CAEO) - Elsevier.

Computers and Education: X Reality (CEXR) - Elsevier.

Computers & Education: artificial intelligence - Elsevier.

Technology, Knowledge and Learning - Springer.

British Journal *of Educational Technology* (BJET) - British Educational Research Association.

Education and Information Technologies - Springer.

Educational Technology Research and Development - Springer.

International Journal of Artificial Intelligence in Education (IJAIED) - Springer.

IEEE Transactions on Learning Technologies - IEEE.