GEORGIAN AMERICAN UNIVERSITY

Informatics & Engineering School

Master's Program in Informatics

Curriculum

Program Title

Web and Multimedia Project Technologies and Management

Level

Master's degree program

Qualification awarded

Master of Informatics (0613.1.1)

Program Head

Nina Karbelashvili

Affiliate professor. Details about the qualification of program director, her scientific and educational activities are given in the annexes to this document.

Scope of Program

The master's program is based on ECTS system.
To qualify, a student must earn 120 credits under the Master's Degree Program, which is the sum of credits for the study courses, components, and free components (mandatory and optional) included in the program with relevant content;

To qualify, a Master's student must earn at least 83 credits (69.17%) in mandatory educational courses and components, including 9 credits in the practical component and 18 credits in the research component – bachelor's thesis.

Learning Component is a set of study elements designed for students to achieve mastery, facilitating and preparing them for practical work.

In Learning Component, students must earn 90 credits, including:
56 credits - Mandatory courses
Optional Courses - 34 credits (28.33%), with any combination of optional courses from 143 credits offered;

In practical component, master's student shall earn 9 credits:

The practical component can be implemented at the laboratory of the Georgian American University School of Informatics and Engineering, or in the institutions, which the University or the School of Informatics and Engineering (Faculty) has a memorandum of understanding / cooperation agreement.

In the research component, student shall earn 18 credits:

Details on the research component are provided in the Regulations of Master's Program in the School of Informatics and Engineering

In Free Component, student shall earn 3 credits:

From the same optional study courses; From another academic educational program of the same level at the School of Informatics and Engineering or at the Georgian-American University; From the academic program of the same level accredited in another higher education institution of Georgia; From academic educational program of the same level in a foreign higher education institution, if these credits are recognized as appropriate in accordance with legislation of Georgia.

Language of learning

Georgian

Program Goal

prepare highly qualified personnel to implement/conduct projects and research in interdisciplinary informatics, ensure project direction and management, being a growing demand of government organizations, large corporations, small businesses and various fields of science;
One of the most demanded and highly paid positions in companies, state institutions engaged in various fields is project manager in informatics and information technologies. Therefore, the goal of the master's program is:

1. To prepare a highly qualified specialist with deep and systemic knowledge, who is ready for practical and research activities in various fields of application of informatics and information technologies;
2. Train specialists equipped with the knowledge and skills relevant to market requirements, with the ability to develop, manage and implement web and multimedia projects in various fields of science, engineering, education, and commerce;
3. Develop the ability to make professional innovative decisions related to the research and analysis of existing systems and introduction of the latest technologies.
4. Develop students' ability to take initiative, focus quickly and make effective decisions, develop group solutions;
5. Develop the ability to communicate with academia or the professional community in an appropriate format;
6. To develop the skills for independent scientific-research work in order to continue study at the next level.
7. To prepare a competitive specialist for a proper career, motivated for more professional achievements in both national and international markets.

Master's Degree Prerequisites

Bachelor's degree, or an academic degree equivalent to it is required to be eligible to a master's program implemented by school based on the results of common master's exams; Succeed in interview at the university in the specialty; The topics and issues of the interview will be published on the website of the Georgian American University; at least B2 level in English is required for Candidates.

Estimated number of students

20

Field of employment

The Master in Informatics can work successfully in any governmental, commercial, scientific, engineering, advertising, educational, banking or other organizations. He will be able to research, design and apply information processes and technologies in various fields, develop, manage and administer multimedia and web projects, perform e-business management, business resource planning, project management, web content management and other activities the field of informatics.

Opportunity to continue study

Graduates of the master's program can continue their studies at the third level of higher academic education - doctorate program, in accordance with the rules established by legislation.

Study Outcomes

Upon completion of this Master's program, students can:

1. Describe the use of information and communication technologies in various practical and research fields;
2. Explain the need to implement projects that meet market requirements;
3. Use information and communication technologies in various scientific, engineering, educational and commercial research or practical projects;
4. Analyze the results of the feasibility study of the existing systems;
5. Evaluate the results of solutions for introduction of the latest technologies;
6. Develop a plan for designing, management and implementation of projects in the fields of education, science, technology and commerce;
7. To offer their conclusions, arguments and research methods to the academic and / or professional community based on the academic integrity, and taking into account academic achievements;
8. To plan, define and manage their own areas of permanent study in order to enrich their professional knowledge and experience;

Format and methods of achieving learning outcomes

☒ Lecture

☒ Seminar / Presentation-Demonstration

☒ homework

☒ Practical and laboratory work

☒ Group work

☒ E-resource training

☒ E-learning

☒ Training practice

☒ Bachelor Thesis

☒ other

The professor may use one or more of the above formats, methods, or any other method depending on the specific course assignment. The teaching and learning methods of a specific training course are included in the syllabus of the relevant training course.

Student Assessment System

Assessment of student mastery of course subjects is detailed in each training component of the program.

Earning/obtaining credits by student in relevant learning components implies active participation in teaching process and is based on the principle of continuous assessment of acquired knowledge. The level of achievement of learning outcomes is assessed according to the assessment system approved by the Order # 3 of the Minister of Education and Science of Georgia of 5 January 2007 “On the Rule of Calculation of Higher Education Programs using Credit systems".

Assessment of the level of achievement of learning outcomes includes intermediate and final forms of evaluation, the sum of which is a maximum final assessment - 100 points.

Student assessment is conducted throughout the academic semester. Accordingly, the student's final grade is the sum of the midterm grades and the final exam grade;

Assessment forms include the assessment component(s) that determine the assessment method for the student's knowledge /understanding and /or ability and /or autonomy /responsibility (oral /written exam, test, quiz, seminar /presentation, practical /laboratory work, homework /independent work, etc.). Assessment components combine assessment methods (test, presentation, graphic work, etc.). The evaluation method is measured by evaluation criteria.

Each form and component of the assessment has a defined share of the total score of the assessment (100), which is reflected in a specific syllabus.
The evaluation score of the final exam is 40, the remaining 60 points are distributed in accordance with midterm evaluations;
The 60-point midterm assessment distribution may include several tests, activities in seminars and workshops, presentations, review of homework etc. and is conducted in accordance with the specifics of the learning course and is specified in detail by the leading professor of the course in the syllabus;

Each form of assessment has a minimum competency threshold - at least 25 points for the intermediate assessment and at least 16 points for the final assessment.
Student who earns a minimum of 25 points on intermediate grades during the semester is eligible to take the final exam;

The minimum competency threshold can also be set for the assessment component(s), which are specified in the syllabus of each course.

It is not allowed to grant credits using only one form of assessment. Credits are awarded to the student in case of a positive assessment.

Credits can be received /accumulated by students in relevant course only if they successfully complete the assignment provided in the syllabus of the course and receives one of the positive evaluations provided by law;
The course is considered passed if the student accumulates at least 51 points.
Student assessment is based on the following assessment system:
Learning component evaluation system:

Five types of positive assessment:
(A) Excellent – 91 and more points from maximum evaluation;
(B) Very good - 81-90 points from maximum marks;
(C) Good - 71-80 points from maximum marks:
(D) Satisfactory - 61-70 points from maximum marks:
(E) Sufficient - 51-60 points from maximum marks:

Two types of negative assessment:
(FX) Did not pass - 41-50 points from maximum marks;
(F) Fail- 40 points and less from maximum marks;

(FX) Did not pass - 41-50 points from maximum marks, which means that a student needs harder work to pass and is granted one additional attempt with independent work. The additional exam is appointed not less than 5 calendar days after the announcement of the final exam results. The student takes an additional

final exam in the same semester;

(F) Fail- 40 points and less from maximum marks, which means the performance a student is not sufficient and he/she has to learn the subject from the beginning and retake the learning course.

The student can take any course twice throughout the learning process, including to improve the positive assessment received;
Master's thesis is evaluated based on course evaluation system;

To determine the students final grade and to encourage them, a cumulative grade is calculated at the end of study process (cumulative score is also calculated at the end of each semester).
The cumulative grade should be calculated as follows: Multiplying the points earned by student in each course by the number of credits set for that course, and dividing the total of these values by the number of credits accumulated by the student.

Outputs to be achieved for the implementation of the program

Material resources:

- Space provided by law (training and auxiliary);
- appropriately equipped auditoriums, conference halls, work rooms for academic staff, space for administration;
- Uninterruptible power supply system;
- Bathrooms;
- Natural lighting;
- Heating;
- Fire safety mechanisms and fire-fighting equipment;
- Evacuation plan;
- Health care mechanisms (medical office);
- Order Maintenance Mechanisms (University security);
- Adequate number of computers and access to the Internet;
- Library equipped with relevant textbooks for the educational program and modern information-communication technologies;

Human resources:

- Academic staff selected in accordance with the legislation of Georgia and taking into account their qualifications.
- Practitioners and scientists with relevant qualifications are invited to the University as researchers and teachers.

Postgraduate students' performance indicators

1. Describe the use of information and communication technologies in various fields of practical work and research;

Target Indicator:
In order to evaluate the learning outcome, the achievement of students in the following courses is evaluated: MEI 307; MEI 910; MEI 607; MEI 603; MEI 104; MEI 203; MEI 301; MEI304; MEI 303; MEI 805; MEI 409; MEI 509; MEI 606; MEI 605; MEI 305; MEI 103; MEI 102; MEI101; MEI 915; MEI 916; See Curriculum.

Since both students' basic theoretical knowledge and practical skills are measured by their achievements in these courses:

2. Explain the need to implement projects that meet market requirements;

Target Indicator:
2.1. Proper work planning;
2.2. Redistribution of functions;
2.3. Taking the initiative;
2.4. Implementation of the initiative;
2.5. Take responsibility for their own actions.

Assessment methods / components: tests, abstract, homework, presentation-demonstration, individual paper (practical work), practical component, qualification thesis.

3. Use information and communication technologies in various scientific, engineering, educational and commercial research or practical projects;

Target Indicator
3.1 Analyzes individual assignments;
3.2 Performs practical project development in accordance with the information and specifications provided beforehand;
3.3 Seeks and uses relevant materials and literature;
3.4 Carries out program-related and graphic part of the project;
3.5 Completes textual part of the project - explanatory note.

Assessment methods / components: tests, abstract, homework, presentation-demonstration, individual paper (practical work), practical component, qualification thesis.

4. Analyze the results of the feasibility study of the existing systems;
5. Evaluate the results of solutions for introduction of the latest technologies;

Target Indicator
4.1 Search for relevant information in native language to complete the assignment;
4.2 Search for relevant information in foreign language to complete the assignment;
4.3 Information analysis;
4.4 Formulation of the relevant conclusion;

Assessment methods /components: tests, abstract, homework, presentation-demonstration, individual paper (practical work), practical component, qualification thesis.

6. Develop a plan for designing, management and implementation of projects in the field of education, science, technology and commerce;

Target Indicator:
6.1. Analyzes the assignment and information and specifications provided beforehand;
6.2. prepares work plan;
6.3. Finds and uses relevant materials and literature;
6.4. 6.4. Distributes functions;
6.5. 6.5. Takes the initiative and takes responsibility for his own actions.

Assessment methods /components: tests, abstract, homework, presentation-demonstration, individual paper (practical work), practical component, qualification thesis.

7. offer findings, arguments and research methods to the academic and /or professional community based on the academic integrity and taking into account academic achievements;
   Target Indicator

   7.1. Presents information based on the interest of the listeners;
   7.2. Presents existing information and his own arguments in writing and oral form in a logical, consistent and clear manner;
   7.3. Uses terminology of information technology when communicating information;
   7.4. Respects different views;
   7.5. Uses effectively communication technologies in presenting information.

Assessment methods /components: tests, abstract, homework, presentation-demonstration, individual paper (practical work), practical component, qualification thesis.

8. plan, define and manage his own areas of permanent study in order to enrich his professional knowledge and experience;

Target Indicator
8.1. Evaluates its own abilities;
8.2. Evaluates abilities of others;
8.3. has the ability to work in team environment;
8.4. Can plan continuous professional development;
8.5. time management ability;
8.6. has the ability to properly manage available resources;
Assessment methods /components: presentation-demonstration, individual paper (practical work), practical component, qualification thesis.

Criteria for evaluating target benchmarks

	Criteria					
	A	B	C	D	E	F
Target benchmark	Excellent Use of the indicator-defined ability to draw clear conclusions. Demonstrate excellent ability of evidence synthesis through analytical method	Very good Use of the indicator-defined ability to draw clear conclusions. Demonstrate very good ability of evidence synthesis through analytical method	Good Use of the indicator-defined ability to draw clear conclusions. Demonstrate good ability of evidence synthesis through analytical method	Satisfactory use of the indicator-defined ability to draw clear conclusions. Demonstrate satisfactory ability of evidence synthesis through analytical method	Sufficient use of the indicator-defined ability to draw clear conclusions. Demonstrate sufficient ability of evidence synthesis through analytical method	Insufficient use of the indicator-defined ability to draw clear conclusions. Demonstrate absence of the ability of evidence synthesis through analytical method

Appendix 1- Curriculum
Appendix 2: Map of Objectives and Outcomes;
Appendix 3: Map of Learning Outcomes;
Appendix 4: CV - Nina Karbelashvili