

**Admission Prerequisites to the Program:**

The studying rights on a Master's program is entitled person who has at least (01) Bachelor of Agrarian Science, (05) Bachelor of Science / Natural Sciences or equivalent academic degree, and has English knowledge in the level B2, that must be approved by an appropriate Certificate from an Institution with special Accreditation, or tests providing by the University. The person will be enrolled according on the results of the master's exams (general master's exam and the exam / exams / in specialization, English language tests provided by the GTU). The exam questions / tests will be posted on the GTU Department of Education website at

<http://gtu.ge/> at least one month before the exams begin. Admission to the program without passing the master's exams is possible according to the procedure established by the Ministry of Education, Science, Culture and Sport of Georgia.

**Program Objective:**

The aim of the master's program is to teach students historical trends of spreading and development for grapevine and wine in the World viticulture and wine making, the modern and innovative methods of vineyard establishment and cultivation based on varietal biodiversity, the full agro technological cycles of vineyard management.

Based on the international regulations and guidelines in Viticulture and Enology in the World grape processing features, modern innovative and traditional technologies of wine making and other alcoholic beverages of grape origin, trends in the fields of vitivinification, microbiological and physical-chemical processes, laboratory testing of wine quality based on modern analytical methods, selection of appropriated methods for testing and their planning.

physical-chemical composition of wine and beverages, their sensory evaluation based on international rules and practically established systems, wine diseases, the reasons of their origin and the ways of their prevention; current trends in the world wine tourism market, planning and elaboration of touristic products - including "wine-routs" among others - and their promotion taking in account the World trends.

And in accordance to the International standards and the innovative methods prepare a Master of Viticulture and Enology - in the labor competitive market, a skilled, qualified and competitive expert managing the whole wine production chain - starting from grape growing to final product.

### **The Learning Outcomes/Competence (general and field-specific)**

- Describes the basic principles of organizational and seasonal management of viticulture; Vine and grape development phases and main physiological processes of the plant, impact of agro-climatic conditions on vine and wine quality, effective and sustainable systems for managing of soils and water in a vineyard, modern trends in the field, describes the main pests and diseases in viticulture, and discusses about integrated pest management for their prevention, independently plan vineyard maintenance operations, discuss potential problems in plant growth and development, and plan solutions based on the modern requests;
- Evaluates soil resources and determines the optimal harvest date for the desired final product, plans the appropriate technology and establishes the process of alcoholic fermentation, analyzes seasonal operations, manages grape cultivation and oenological processes according to current regulations;
- Discusses world viticulture and winemaking, traditional, classical and innovative production features in accordance with existing legislation, appellation regions and their characteristics, vine varieties and agro-technological features;
- Describes grape and wine analysis methods, chemical and physical processes during grape processing, discusses the solutions needed during the process and ways to realize them;
- Identifies wine diseases, discusses their causes, and suggests ways to eliminate them. Plans for tasting alcoholic beverages in accordance with international requirements and standards;
- Discusses world beverages market trends, modern market research tools, company structure and trading opportunities between countries; independently plans market research, business, brand and product development strategies to attract satisfied customers;
- Connects wine, as an ancient culture, to the product of one of the world's leading forms of wine tourism development. Analyzes the requirements of wine tourism worldwide, develops a wine tourism development strategy, plans the necessary activities and activities to raise awareness;
- Plans and makes independent research based on modern methods and trends, develops critical conclusions, perspectives and innovative suggestions on viticulture-winemakers' problems, develops arguments when communicating with the academic or professional community;
- Shares and adheres to ethical and professional responsibility norms, presents substantially and innovative visions in viticulture and winemaking.

### Student Knowledge Assessment System:

Grading system is based on a 100-point scale.

Positive grades:

- (A) - Excellent - the rating of 91-100 points;
- (B) – Very good - - the rating of 81-90 points
- (C) - Good - the rating of 71-80 points
- (D) - Satisfactory - the rating of 61-70 points
- (E) - Enough - the rating of 51-60 points

Negative grades:

- (FX) - Did not pass - 41-50 points of rating, which means that the student needs more work to pass and is given the right to take the exam once more with independent work;
- (F) – Failed - 40 points and less, which means that the work carried out by the student is not enough and he/she has to learn the subject from the beginning.

In the case of receiving FX, an additional exam is held no earlier than 5 days after the announcement of the results.

Detailed information is available on GTU's website: Instructional Management Process at Georgian Technical University <https://gtu.ge>

Qualification assessment criteria and scales are given in the research component of evaluation section of master's program on the GTU website: <https://gtu.ge/>

Detailed information on the evaluation of the research component of the MA program is available at the GTU web site: <https://gtu.ge/>

Nº	Courses in the Program	ECTS Credits
1	Viticulture and vineyard management systems	5
2	Grapevine physiology	4
	<b>Elective courses of specialty</b>	
3.1	Regulation of viticulture and wineproduction	4
3.2	Agro insurance	
3.3	Wine grapes and world grapegrowing regions	
4	Grapevine pests, diseases andintegrated pest management	4
5	Integrated soil and water managementfor vineyards	4
6	Intensive course in winemicrobiology	5
7	Enochemistry	4
8	Wine production and winerysystems	6
9	Vineyard establishment andmaintenance	5
10	Field Practice in viticulture	6
	<b>Elective courses of specialty</b>	
11.1	Wine and beverage marketing	4
11.2	World wines and winemakingtechniques	
11.3	Sparkling wine production	
12	Methods of must and wine analyses	4

13	Wine tourism	5
14	Production of distilled spirituous beverages of grape origin	5
15	Sensory evaluation of wine	5
16	Enterprise Practice in Winery	5
	<b>Research Component</b>	