|  |  |
| --- | --- |
| **Program Title**  | **Garden and Park Agriculture (AGPB)** |
| **Degree Awarded**  | **Bachelor of Agricultural Sciences** |
| **Faculty**  | **Agrarian**  |
| **Program coordinators**  | **Associated professor Eter Benidze** ☎ - office: (0431)277766; mobile phone number: 593596224; 577668661.**E-mail**: Eteri@benidze.net |
| **Duration of the Program (semester, number of credits)** | **4 academic years (8 semesters) \_ 240 ECTS credits (3000 hours)****Minor compulsory courses \_ 40 credits;****Basic courses \_ 120 credits;****Elective disciplines \_ 20 credits; (free credits \_ 5);****Minor course \_ 60 credits** |
| **Language of the Program**  | Georgian  |
| **Program development and renewal date of issue**  | Program developed in 2010-2011Accredited in September 16, Decree N19  |
| **Program prerequisits**  |
| Bachelor student can become an applicant who preliminarily registers in unified national exams centre, passes the unified national exams. Foreign citizens must have received secondary or equivalent education in a foreign country corresponding to the laws of this country. |
| **Aims of the Program**  |
| In conditions of modern urbanization and global ecological problems, it’s important to organize public services and amenities and grow green trees in cities and in other populated areas, which provide to create comfortable and healthy environment to people. This activity can’t be carried out without highly qualified specialists, whose preparation is included in the Bachelor Program “Garden and Park Agriculture”. The program provides to prepare specialists, who will be able to: reconstruct and build territories of personal plot, gardens, parks, squares and other areas of different functions; take care of planted greenery, make inventory of forest resources, evaluate, appreciate and use them rationally; organize and exploit decorative plant nursery gardens and forests having assortment appropriate to the branch requirements.The Program gives opportunity to get theoretical knowledge and practical experience in order to form a competitive specialist of garden and park agriculture. Theoretical and practical knowledge synthesis is of great importance in the program.  |
| **Learning results (General and Branch competencies)**  |
| **Knowledge and Recognition**  | * Know basic species and gardening forms of grasses/herbs, exotic decorative wooden and endemic plants widely spread in forests, parks and reservations of Georgia; their bio-morphological specifications, artistic values, agro-technics, forms of usage; realize the importance of preserving forests, growing green trees and plants on territories and organizing public services and amenities in order to create comfortable and healthy environment for people.
* Know basic species and breeds of vine, subtropical and vegetable crops, their bio-morphological specifications, agro-technics and forms of using them in decorative gardening.
* Know basic steps of landscape architecture and historical heritage of art, its specifications, modern tendencies, planning landscapes and basic regulations and methods of projecting; rules and regulations of exploitation and building green areas.
* Know standards of vegetative reproducing and seeding of plants, technologies of cultivating and forming them in nursery gardens; current methods of caring plants in greenery areas;
* Have knowledge of marketing issues, management and economy, small concerns of planting of greenery profile.
 |
| **Skill to use knowledge in practice**  | * + Work on computer, communicate in native and foreign languages, do simple mathematical calculations and make chemical analysis.
	+ Are able to recognize basic assortments of decorative plants and forests widely spread in Georgia, and fruit crops, evaluate their condition, make inventory of plants of the territory.
	+ Know basic ways and methods of regulating the vital processes of plants; are able to create optimal conditions for them: cultivating lands, feeding and watering plants, protecting them from diseases; are able to form and reproduce planting materials of plants, transporting plants of different types and ages in a right way.
	+ Are able to create reconstruction projects about existing condition of different types of territories on the basis of received theoretical and practical knowledge, realize their plans graphically according to appropriate computer program, make sketches of important regions and places, calculate estimating costs of the projects of planting of greenery.
	+ Are able to carry out dendro project by using project drawings (tracking and planting) \_ preliminary preparation of territories, planning, defining territories to plant wooden plants; create different kinds of flower gardens, exploit greenery areas.
 |
| **Skill to make conclusions**  | * Realize the importance of using natural resources rationally in order to preserve biodiversity and ecological condition of the environment and in development of agriculture.
* Are able to realize the requirements of cultivating and caring forest and decorative wooden plants, fruit and vegetable crops and vine planting materials to the environmental conditions; carry out agro-technological arrangements.
* Have skills to discover and select natural clones, select origin pairs to get new perspective forms and breeds of forest and decorative plants.
* Define their taxonomic consistence in the process of wooden plant inventory, degree of adaptation to the environmental conditions, define and evaluate vital conditions and make a conclusion in reconstruction process about the issue of their stubbing, transplanting or changing with new ones; defines size and types of cutting down in forests, plans works and fixes the time of collecting seeds.
* Plans and organizes technologies of cultivation of wooden plants and herbs, typical consistence and amount of planting materials according to the requirements of planting of greenery.
* Are able to define and analyze current condition of projecting territory adequately, plan reconstruction arrangements; realize planning the territories by considering their functions and artistic style; plan works to carry out the project and arrange works before making a project; realizes consistence of plants ready for greenery planting considering current conditions and artistic intentions; plan types and fix time to carry out plant caring works in the exploitation process of the territory.
* Are able to analyze latest data independently, transform concepts and data in conditions of minimal management, solve problems, make plans of determined works and distinguish priorities.
* Present projects related to organizing public services and amenities of territories, have public discussions and make maintained intentions.
 |
| **Communication skills**  | * Communicate with professionals and nonprofessionals about their branch field in native language.
* Use internet and various electronic resources in order to find useful information and make communications.
* Prepare and orally present explanation letters of projects about various kinds of flower gardens, interiors, parks.
 |
| **Learning skills**  | * Find materials related to profession in literature, on the internet, in native language, their analysis, creative usage; prepare presentations, evaluate their knowledge, renew it and define continuing learning.
* Is able to work in groups in period of making projects and having producing practice.
 |
| **Values**  | * Is able to realize global ecological problems of our planet, human role in protecting and preserving nature.
* Realizes role and importance of green world in preserving life on the earth and organizes the world evolution; realizes the importance of building parks and gardens in order to create vital environment to human beings.
* Respects different nations and civilizations; their culture and customs, forms tolerant values towards them.
 |
| **Teaching Methods**  |
| Learning process can take place in academic group and at university according to established norms: duration of Bachelor Program is 4 academic years – (8 semesters) – 240 ECTS credits. Duration of one semester includes 15 lecture weeks and 4 session weeks. In the learning process a lecturer represents lecture material by visual presentation, which includes verbal explanation and discussion also takes place. In the process of learning and teaching, lecturer use diverse methods. Teaching methods are the following: * Verbal or oral;
* Writing method;
* Discussion/debates;
* Collaborative work;
* Heuristic method;
* Demonstrative method;
* Method of synthesis;
* Explanation method;
* Action oriented learning.
 |
| **Program structure**  |
| Study schedule of Bachelor Program includes: * + **Compulsory courses** of specialty, which are determined to recognize basic conceptions and course of natural sciences, humanitarian and informational sciences, know the latest achievements in various fields of mentioned sciences and expand erudition;
	+ **Compulsory courses of major** specialty. Learning these courses is aimed at recognizing basic principles, theories and conceptions of sciences; gaining systemic knowledge of technological field; forming skills to appreciate processes objectively, complex view of the events, making theoretical analysis and empirical data, having inter-disciplinary attitude necessary for student’s technological activity and for production expertise, forming students as professionals.
	+ The aim of **the elective courses** is to give students opportunity to develop knowledge and learn second language;
	+ Free credits can be received by a student, which gives them opportunity to choose desirable learning course from university courses and deepen their knowledge. Received free credit is reflected in the attachment of diploma.
	+ The aim of learning **minor disciplines** is to get additional profession together with the major profession in order to have professional career growth and broaden the area of employment. Students have opportunity to choose additional profession from minor list offered by the university and gain additional competencies appropriate to the selected minor course. (to achieve the aim in study schedule of Bachelor Program – 10 credits are considered in each semester after second semester). The additional program is “Garden and Park Agriculture”.

 **See Study Schedule in attachment 1.** |
| **Criteria and evaluation system of knowledge of a student** |
| Assessment System:  The assessment of the academic performance of students of higher education programs at Akaki Tsereteli State University is carried out by the modern indicators with the order N3 (05.01.2007), and August 18, 2016, №102/N of the Minister of Education and Science of Georgia, defined principles of Akaki Tsereteli State University academic council:the specific share includes 60 points (which itself includes: a student’s active learning process during each semester – 30 points and mid-term exam – 30 points), final exam – 40 points.The student has the right to take the final exam, if his/her minimum competency is 18 points. Evaluation system includes: a) Five forms of positive assessment: A) (A) Excellent – 91% and more from maximum evaluation;B) (B) very good – 81-90% from maximum evaluation; C) (C) good – 71-80% from maximum evaluation; D) (D) satisfactory – 61-70% from maximum evaluation; E) (E) sufficient – 51-60 % from maximum evaluation. B) Two forms of negative assessment: (FX) (Administrative Fail in course for grade/could not pass) A student gets 41-50% from maximum evaluation which means, that s/he is required to work more for passing the exam, and that s/he is entitled to take a makeup exam only once through personal study; (F) (Academic Fail ) – A student gets 40% and less from maximum evaluation, which means that the work done by him/her is not sufficient and s/he has to retake the course.According to educational component of educational program, in case of adoption of FX, a makeup exam will be appointed no less than 5 calendar days after the conclusion of the final exam results.* The number of minimum points received from the makeup final exam is 15 points.
* The number of minimum points received from the makeup final exam, is not added to the final assessment received by the student.
* Points received from makeup exam is a final assessment and is added to the final evaluation of the learning component of the educational program.

According to the assessment 0-50 points received from the makeup final exam, in the final evaluation of the educational component, the student will be evaluated the F-0 score.Additional criteria of evaluating student’s achievements in learning course is determined in appropriate syllabuses. |
| **Employment Opportunities**  |
| A graduate can work at cities and other populated territories, which include taking care of green territories, building and reconstructing them; at different public, administrative resorts, tourist and educational services, at all types of agricultural and forest companies, private LTD centres and companies, which include designing and planting of greenery on territories, offices and individual personal plots, at different kinds of companies of ecological profile and nongovernmental organizations. |
| **Supportive Resources**  |

**Attachment 1**

**Study Schedule 2017-2018**

**Program title: Bachelor Program “ Garden and Park Agriculture”**

**Degree Awarded: Bachelor of Agricultural Sciences**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **№** | **Course**  | **Course code**  | **credit** | **Number of hours**  | **l/pr/lab/gr** | **Semester**  | **Preconditions**  |
| **Total**  | **Contact**  | **ind.**  | **I** | **II** | **III** | **IV** | **V** | **VI** | **VII** | **VIII** |
| **Local**  | **Midterm and final exams**  |
| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** | **13** | **14** | **15** | **16** | **17** | **18** |
|  | **I. basic compulsory courses (40 credits)** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1 | Informatics  | NIB0700 | 5 | 125 | 45 | 3 | 77 | 0.0.3.0. | 5 |  |  |  |  |  |  |  |  |
| 2 | Foreign language 1 (English, German, French, Russian) | HEB0820HFB1550HSB1000 | 5 | 125 | 60 | 3 | 62 | 0.4.0.0. | 5 |  |  |  |  |  |  |  |  |
| 3 | Foreign language 2 (English, German, French, Russian) | HEB0830HFB1560HSB1010 | 5 | 125 | 60 | 3 | 62 | 0.4.0.0. |  | 5 |  |  |  |  |  |  |  |
| 4 | Foreign language 3 (English, German, French, Russian) | HEB0840HFB1570HSB1020 | 5 | 125 | 60 | 3 | 62 | 0.4.0.0. |  |  | 5 |  |  |  |  |  |  |
| 5 | Academic writing  | HLB0600 | 5 | 125 | 45 | 3 | 77 | 0.3.0.0. | 5 |  |  |  |  |  |  |  |  |
| 6 | Calculus  | NMB1120 | 5 | 125 | 45 | 3 | 77 | 1.2.0.0. | 5 |  |  |  |  |  |  |  |  |
| 7 | Agro-analytic chemistry  | ACB0020 | 5 | 125 | 45 | 3 | 77 | 1.0.2.0. | 5 |  |  |  |  |  |  |  |  |
| 8 | Science of nature tenure | ASB0030 | 5 | 125 | 45 | 3 | 77 | 1.2.0.0. | 5 |  |  |  |  |  |  |  |  |
|  | **II. basic courses (120 credits)** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 9 | Botany  | ASB0020 | 5 | 125 | 45 | 3 | 77 | 1.2.0.0. |  | 5 |  |  |  |  |  |  |  |
| 10 | Basic soil science  | ASB0010 | 5 | 125 | 45 | 3 | 77 | 1.0.2.0. |  | 5 |  |  |  |  |  |  | 8 |
| 11 | Landscape ecology  | ALB0070 | 5 | 125 | 45 | 3 | 77 | 1.2.0.0. |  | 5 |  |  |  |  |  |  |  8 |
| 12 | Machines and mechanisms in building and constructing gardens and parks  | AEB0350 | 5 | 125 | 45 | 3 | 77 | 1.2.0.0. |  | 5 |  |  |  |  |  |  |  |
| 13 | Soil science with agro-chemistry principles  | ASB0060 | 5 | 125 | 45 | 3 | 77 | 1.1.1.0 |  |  | 5 |  |  |  |  |  | 7, 10, 11 |
| 14 | Vine and vegetable growing  | ALB0090 | 5 | 125 | 45 | 3 | 77 | 1.2.0.0. |  |  |  | 5 |  |  |  |  | 9, 10, 13 |
| 15 | Subtropical cultures  | ALB0440 | 5 | 125 | 45 | 3 | 77 | 1.2.0.0. |  |  |  |  | 5 |  |  |  | 9, 10, 13 |
| 16 | Preserving forest and decorative plants  | ACB0030 | 5 | 125 | 45 | 3 | 77 | 1.2.0.0. |  |  |  |  |  |  |  | 5 | , 21, 22, 23, 26 |
| 17 | Genetics and selecting of decorative plants  | ASB0070 | 5 | 125 | 45 | 3 | 77 | 1.0.2.0.  |  |  |  |  |  |  | 5 |  |  21, 22, 23 |
| 18 | Biotechnology in decorative gardening  | ASB0080 | 5 | 125 | 45 | 3 | 77 | 2.0.1.0. |  |  |  |  |  |  |  | 5 | 17, 21, 22, 23 |
| 19 | Drawing and painting  | ALB0120 | 5 | 125 | 45 | 3 | 77 | 0.0.3.0. |  | 5 |  |  |  |  |  |  |  |
| 20 |  System of land tenure with geodesy principles  | ALB0130 | 5 | 125 | 45 | 3 | 77 | 1.2.0.0. |  |  | 5 |  |  |  |  |  |  |
| 21 | Floriculture  | ALB0140 | 5 | 125 | 45 | 3 | 77 | 1.0.2.0. |  |  |  | 5 |  |  |  |  | 1, 9, 10, 19 |
| 22 | Decorative wooden coniferous trees  | ALB0150 | 5 | 125 | 45 | 3 | 77 | 1.0.2.0. |  |  | 5 |  |  |  |  |  | 9, 10 |
| 23 | Decorative wooden plants  | ALB0160 | 5 | 125 | 45 | 3 | 77 | 1.0.2.0. |  |  |  | 5 |  |  |  |  | 9, 10, 22 |
| 24 | Phytodesign  | ALB0170 | 5 | 125 | 45 | 3 | 77 | 1.2.0.0. |  |  |  |  | 5 |  |  |  | 1, 19, 21, 22, 23 |
| 25 | Nursery gardens of forest and decorative wooden plants  | ALB0180 | 5 | 125 | 45 | 3 | 77 | 1.2.0.0. |  |  |  |  |  | 5 |  |  |  10, 13, 22, 23, 26 |
| 26 | Forestry principles  | ALB0410 | 5 | 125 | 45 | 3 | 77 | 1.2.0.0. |  |  |  |  | 5 |  |  |  | 9, 10, 11, 22, 23 |
| 27 | Landscape art  | ALB0200 | 5 | 125 | 45 | 3 | 77 | 1.0.2.0. |  |  |  |  |  | 5 |  |  | 1, 11, 19, 21, 22, 23 |
| 28 | Forest and landscape taxation  | ALB0210 | 5 | 125 | 45 | 3 | 77 | 1.2.0.0. |  |  |  |  |  |  | 5 |  | 22, 23, 25,26 |
| 29 | Projecting parks and gardens  | ALB0220 | 5 | 125 | 45 | 3 | 77 | 1.0.2.0. |  |  |  |  |  |  | 5 |  | 1, 10, 11, 14, 15, 19, 20, 21, 22, 23, 26, 27 |
| 30 | Constructing parks and gardens  | ALB0230 | 5 | 125 | 45 | 3 | 77 | 1.0.2.0. |  |  |  |  |  |  |  | 5 | 10, 12, 20, 21, 22, 23, 25, 26, 28, 29 |
| 31 | Farming in green constructing  | ALB0240 | 5 | 125 | 45 | 3 | 77 | 2.0.0.1. |  |  |  |  |  |  |  | 5 | 21, 22, 23, 25, 29 |
| 32 | Producing practice  | ALB0250 | 5 | 125 | 45 | 3 | 77 | 0.3.0.0.0. |  |  |  |  |  | 5 |  |  |  21, 22, 23 |
|  **Total**  |  | **160** | **4000** | **1485** | **96** | **2419** | **27.45.26.1.** |  |  |  |  |  |  |  |  |  |
| **III. elective courses (20 credits)** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 33 | Foreign language 1 (English, German, French, Russian) | HEB0820HFB1550HSB1000 | 5 | 125 | 60 | 3 | 62 | 0.4.0.0. |  |  |  | 5 |  |  |  |  |  |
| 34 | Landscape melioration  | ALB0080 | 45 | 3 | 77 | 1.2.0.0. |  |  |  |  |  |  |  | 10 |
| 35 | Hydro-technical devices  | AEB0361 |  |  |  |  |  |  |  | 10 |
| 36 | Preserving environment  | ALB0272 |  |  |  |  |  |  |  |  |
| 37 | Foreign language 2 (English, German, French, Russian) | HEB0830HFB1560HSB1010 | 5 | 125 | 60 | 3 | 62 | 0.4.0.0. |  |  |  |  | 5 |  |  |  |  |
| 38 | Protected territories of Georgia  | ALB0261 | 45 | 3 | 77 | 1.2.0.0.. |  |  |  |  |  |  |  |  |
| 39 | Industrial floriculture  | ALB0281  |  |  |  |  |  |  |  |  |
| 40 | Foreign language 3 (English, German, French, Russian) | HEB0840HFB1570HSB1020 | 5 | 125 | 60 | 3 | 62 | 0.4.0.0. |  |  |  |  |  | 5 |  |  |  |
| 41 | Medical plants  | ALB0271 | 45 | 3 | 77 | 1.2.0.0. |  |  |  |  |  |  |  |  |
| 42 | Preserving and processing agricultural raw materials  | ACB0031 |  |  |  |  |  |  |  | 14, 15 |
| 1.0.0.2. |
| 43 | History  |  | 1.2.0.0. |  |  |  |  |  |  |  |  |
| 44 | Free credits  |  | 5 | 125 | 45 | 3 | 77 | 1.2.0.0. |  |  |  |  |  |  | 5 |  |  |
| **Elective courses in total**  |  | **20** | **500** | **225** | **12** | **263** | **4.8.0.0.** |  |  |  |  |  |  |  |  |  |
| **20** | **500** | **180** | **12** | **\*** **308** | **\*****1.14.0.0.** |  |  |  |  |  |  |  |  |  |
| **Minor credits**  |  | **60** | **1500** | **540** | **36** | **924** | **12.24.0.0.** |  |  |  |  |  |  |  |  |  |
| **Total:**  |  | **240** | **6000** | **2250** | **144** | **3606** | **43.77.26.1** |  |  |  |  |  |  |  |  |  |
| **2205** | **144** | **\*****3651** | **\*****40.83.26.1.** |  |  |  |  |  |  |  |  |  |

**\* if a Bachelor chooses foreign language (among elective disciplines in IV-V-VI semesters foreign language has 5 credits, which include 75 hours of practical work, 3 hours of exam and 47 hours of independent work, which differ from other elective courses).**