

## **Self Evaluation Report**

**GÜMÜŞHANE UNIVERSITY**

**Department of Computer Technologies**

**Prepared by**

**Assoc.Prof.Dr.Sümeyye GÜR MAZLUM (Chairman)**

**Lecturer Mustafa Yılmaz (Member)**

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## 0. INTRODUCTION

### 0.1 INFORMATION ABOUT THE PROGRAM

The department is active since September 28, 2003.

Language: Turkish

Duration (Years): 2

Maximum Duration (Years): 4

Quota: 60

Placement Rate: 96.9

Number of Registered Students: 163

Internship Status: Mandatory

Degree Awarded: Associate degree diploma in computer technologies is given to the graduated students.

Current number of academic staff: 5

## 1. STUDENTS

**1.1. Students admitted to the program must have the infrastructure to acquire the outcomes (knowledge, skills and behaviors) that the program aims to provide within the prescribed period. The indicators taken into account in the admission of students should be monitored and their development over the years should be evaluated.**

Admission to the program is based on the success of the TYT (Basic Proficiency Test) exam conducted by the Student Selection and Placement Center (OSYM). Since the majority of the students who enroll in the program are from vocational high schools and may not have the necessary infrastructure for numerical courses, there may be partial difficulties in reaching some of the outputs that the program aims to provide. This situation is being tried to be minimized with the vocational courses given. In addition, the admission conditions of foreign students to the program are announced on the university's web page at the beginning of each academic year. the quota for the year 2023 is 40, the base score is 249.48, the ranking is 1623447. the quota for the year 2024 is 60, the base score is 252.04, the ranking is 1617398.

<https://kelkitaydindoganmyo.gumushane.edu.tr/tr/sayfa/b%C3%B6l%C3%BCmler-1/bilgisayar-teknolojileri-b%C3%B6l%C3%BCm%C3%BC/?birim=bilgisayar-programciligi-programi>

**1.2. The policies regarding student admissions through horizontal and vertical transfers, double major and minor programs, student exchange practices, and the evaluation of courses and credits earned at other institutions and/or programs should be clearly defined and implemented**

Course contents and all information about the course have been prepared in accordance with the Bologna process, and the evaluation of courses taken in other institutions and/or programs and earned credits with horizontal and vertical transfer and student minor and student exchange applications are appropriate. Students who have completed their final registration for the first grade may be considered exempt from the courses they have previously completed at other higher education institutions by the relevant board of directors decision if they apply during the first week of the academic year in which they will start their studies. In this case, a senior class is determined in which a student who is exempt from at least 75% of the total amount of credits he/she must take in the class he/she

is in will be adjusted. In this case, the adjusted period is deducted from the maximum learning period.

<https://obs.gumushane.edu.tr/oibs/bologna/index.aspx?lang=tr&curOp=showPac&curUnit=12&curSunit=5193#>

The policies applied in the horizontal and vertical transfer student admission, double major, minor and student exchange applications, as well as the evaluation of courses taken in other institutions and/or programs and earned credits are defined and implemented in detail in the "Gümüşhane University Associate Degree and Undergraduate Education-Teaching and Examination Regulations.

#### INTERNAL HORIZONTAL TRANSITIONS

(1) Internal transfers may be made within the quotas determined by the relevant board of directors between equivalent level diploma programs within a faculty, college, or vocational school's own structure or other faculty, college, or vocational school within the university Dec.

(2) In order for a transfer application to be made between the same level but different type of central placement score at the university and the diploma programs that accept students, it is required that the central placement score that the student receives in the type of score applicable to the diploma program that he wants to pass as of the year he took the central exam should not be less than the lowest base score of the diploma programs of other universities in the country equivalent to the diploma program that he wants to pass, and the overall academic grade point average should be at least 3.00. Dec.

(3) The letter grades of the students who transfer in-house are considered valid for the courses they have taken previously, and these grades are included in the average.

#### HORIZONTAL TRANSITIONS Decoupled BETWEEN INSTITUTIONS

(1) Decatur transfer between institutions is made between equivalent diploma programs of higher education institutions at the same level and within the framework of quotas published by the Council of Higher Education (Yüksek Öğretim Araştırma Decatur).

(2) For transfer between institutions, it is necessary that the student's GPA for the periods he has completed in the program he is enrolled Dec must be at least 60 out of 100.

(3) Candidates who cannot meet the success requirement in the second paragraph, but whose central placement score is equal to or higher than the base score of the diploma program they want to transfer, can apply for horizontal transfer. The applications of the candidates who apply in this way are evaluated only if there is a vacant quota after the placement of the candidates who apply according to the second paragraph is completed.

(4) By adjusting the courses that the students who come with horizontal transfer have taken from the previous diploma program and have been successful, the notes previously taken for these courses are processed into the transcript. ANO and AGNOS are calculated accordingly.

<https://kms.kaysis.gov.tr/Home/Kurum/39089344>

### **1.3. Measures should be taken by the institution and/or program to encourage and ensure student mobility through agreements and partnerships with other institutions.**

Our department has an external stakeholder to support and promote student mobility. An agreement has been established with the Information Technology Department of Kelkit State Hospital as an external stakeholder. Meetings have been held with the stakeholder to gather opinions and suggestions for the department. In addition, the stakeholder has been requested to allocate internship quotas for students.

### **1.4. Advisory services should be provided to guide students in course and career planning**

Each academic staff member in our department has a weekly 3-hour Counseling Service to provide students with the support they need for courses, internships, career planning, professional development and all kinds of issues.

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### **1.5. Students' performance in all courses and other activities within the scope of the program should be measured and evaluated using transparent, fair, and consistent methods**

Evaluations in all courses within the program are carried out with the participation of the students and students are given feedback about their deficiencies and achievements. In addition, exam answer sheets, assignments and projects prepared by the students are archived.

These archives can be accessed from student affairs or from the course coordinator.

### **1.6. In order to decide on the graduation of students, reliable methods should be developed and applied to determine that all the conditions required by the program have been met.**

In order for students to graduate, they must successfully complete all of the courses with a total value of 112 ECTS available in the program and obtain at least a weighted GPA of 2.00 out of 4.00. In addition, they are expected to acquire knowledge in the fields of software, systems and hardware during the program and then complete mandatory internships worth 8 ECTS in order to gain the ability to perform software and hardware maintenance and repair of computers used in the public and private sectors using this knowledge and adapt to business life. The skills acquired by the student in the internship applications are evaluated by the meeting to be held by the department. Thus, students who have achieved a total of 120 ECTS can graduate from the program.

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## **2. PROGRAM EDUCATION OBJECTIVES**

### **2.1. Program educational objectives must be defined for each program to be evaluated.**

The outcomes of the education to be provided in the program are determined as the learning outcomes of each course and the overall output of the program. The suitability of the outcomes of each course to the program outcomes has been defined.

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### **2.2. These goals should comply with the definition of career goals and professional expectations that program graduates are expected to achieve in the near future.**

Each of the program outcomes is appropriate to the career goals and professional expectations that students are expected to achieve in the future.

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### **2.3. It should be compatible with the specific tasks of the institution, faculty and department.**

The program carries out its educational activities in a student-oriented manner. The outputs of the program adapt to the field of study of graduate students. Students learn at least 5 programming languages during the 2-year course, get detailed information about computer hardware, can write Internet applications and develop new projects on their own or within the course, have experience in how to adapt to new technologies, have experience in problems and software that may face them in business life.

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### **2.4. It should be determined by involving various internal and external stakeholders of the program in the process.**

During the process, the competency and knowledge base gained by the program will be reviewed by taking the opinions and evaluation of the institutions and organizations operating in the private and public fields where students are in the process of working after internship or graduation. Thus, it is aimed to increase the functionality of the students who will graduate from the program.

### **2.5. It must be published in an easily accessible format.**

Information about the competence issues that the program will provide and the objectives of the training can be easily accessed from the General Information section of the Computer Technologies Section of the Kelkit Aydın Doğan Vocational School web page. In addition, the information needed about the outputs of the program is easily accessible thanks to the bologna course definitions.

<https://kelkitaydindoganmyo.gumushane.edu.tr/tr/sayfa/b%C3%B6l%C3%BCmler-1/bilgisayar-teknolojileri-b%C3%B6l%C3%BCm%C3%BC/?birim=bilgisayar-programciligi-programi>

## **2.6. It should be updated at appropriate intervals in line with the requirements of the internal and external stakeholders of the program.**

Opinions on education and training processes, curriculum, graduate profile and employment opportunities are received from people who have worked in the public and private sectors in the past and present. The department exchanges experiences, knowledge/experience and ideas with internal and external stakeholders every academic year and receives suggestions and opinions on students' individual career determination preferences. In addition to these, the necessary content updates will be made through the feedback from the students who will graduate in the process. This will ensure that each new graduate of the program will be more qualified to work in institutions and organizations in the private and public sector.

## **3. PROGRAM OUTPUTS**

**3.1. Program outcomes should cover all of the knowledge, skills and behavioral components required to achieve the program educational objectives and should be defined in a way that includes the relevant (such as MÜDEK, FEDEK, SABAK, EPDAD, etc.) Assessment Outcomes. Programs may define their own additional program outcomes, provided that they are consistent with the program educational objectives.**

It is aimed to provide the courses given in the program content based on knowledge, skills and practice in the fields of software, system and hardware. In this context, for each course given in the program, the aim of the course, learning outcomes and the contribution of these outcomes to the program outcomes have been determined.

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**3.2. A measurement and evaluation process used to periodically determine and document the level of achievement of program outcomes must be established and operated.**

The educational content given in the program is evaluated by midterm and final exams held in each course period and this evaluation is supported by projects and assignments given during the semester. Students are subjected to 1 midterm and 1 final exam for each course. The contribution of the midterm exam is 40% and the contribution of the final exam is 60%. Homework and projects can be included in the midterm exam grade as a percentage. All exams are evaluated out of 100 points. It is obligatory to get at least 45 points from the final exam. Students who receive one of the letter grades AA, BA, BB, CB and CC from a course are considered to have succeeded in that course. In addition, students whose grade point average for a semester is at least 2.00 are also considered successful in the courses in which they receive a DC letter grade. At the end of each semester, students can take make-up exams from at most two courses of that semester. In addition, students are obliged to attend the courses in order to be successful in the courses.

<https://obs.gumushane.edu.tr/oibs/bologna/index.aspx?lang=tr&curOp=showPac&curUnit=12&curSunit=5193#>

### **3.3. Programs must prove that their students who have reached the graduation stage have achieved the program outcomes.**

It is evaluated whether the student can provide the program outcomes with the compulsory internships conducted in order for the students who will graduate from the program to be able to realize the knowledge they have acquired in a practical manner.

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## **4. CONTINUOUS IMPROVEMENT**

### **4.1. Evidence should be provided that the results obtained from the established assessment and evaluation systems are used for continuous improvement of the program.**

The equivalent of the theoretical and practical software, system and hardware courses given in the program in the field of informatics and technology application is followed by the program qualifications chart, in addition to this, during the internship period, an active communication with the student is ensured and the necessary improvements are made in the process.

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### **4.2. These improvement studies should be based on systematically collected, concrete data related to all areas of the program that are open for development, especially the areas related to Criterion 2 and Criterion 3.**

Improvement studies are defined in a concrete way by taking into account the extent to which the information acquired in the program affects the application or at which points it fails.

<https://kalite.gumushane.edu.tr/tr/>

## **5. CURRICULUM PLAN**

### **5.1. Each program should have an educational plan (curriculum) that supports the educational goals of the program and the program outcomes. The training plan should include the common components given in this criterion and discipline-specific components.**

In order to achieve the educational objectives of the program, a curriculum has been determined for the required courses and the courses are given in accordance with this curriculum. In addition, necessary curriculum updates are made within the scope of the innovations needed for the courses.



## **5.2. The educational methods to be used in the implementation of the educational plan should be able to guarantee that the desired knowledge, skills and behaviors are provided to students.**

The learning process of the program is supported by theoretical and practical courses, both classroom and laboratory.

Distance Education: Due to the pandemic occurring worldwide, education and training have been continued through the distance education portal prepared in cooperation with the information processing Department and the Distance Education Application and research Center by the decision of the Senate throughout the year 2019-2020. In the spring semester of 2022-2023, courses were conducted by distance education due to the Kahramanmaraş earthquake.

Face-to-face Lecture: The topics covered by the instructor are explained to the student face-to-face on the blackboard or accompanied by slides. In this process, the projection device is actively used. Although the lecture is mostly done by the teaching staff, it is also done from time to time by discussing the subject with the student and brainstorming. In addition, research topics are given to students from semester to semester and these topics are explained by students in the classroom in order to give the student self-confidence and to ensure that he understands the subject. Subjects that are not understood are repeated by the teaching staff.

Problem Solving: Problems are prepared by the teaching staff to include the topics described in the course and are based on determining the path to be followed when solving these problems, the methods to be used and interpreting the results.

Exercises and Applications: In order to reinforce the subject given in the lesson with problems, applications are made after the lecture or at a different time during the lesson. Application questions are made using textbooks or other resources provided to students.

Question - answer: It is practiced in the form of answering students' questions during or after the lecture, during or after the application. Question-answer practice is also performed in the assigned assignments.

Project - Homework: Projects or assignments are used to better understand the topics described in the lesson by the student. With the projects and assignments, it is aimed primarily for the student to recognize the problem, comprehend it, scan the necessary literature, develop the skills to solve the subject, and prepare and present presentations / reports.

Case study: It is carried out in the form of explaining and interpreting previously made studies in real environments related to the topics described in the lessons during the lesson.

Seminar-Conference: Apart from these, the leading ones of the sector will be invited to our vocational school and seminar and conference organizations will be organized.

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**5.3. There should be an education management system that will ensure the implementation of the education plan in the prescribed manner and ensure its continuous development.**

Within the scope of the curriculum, the curricula of different educational institutions that can be examples of the educational activities offered in the program are followed and the necessary improvements are provided.

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**5.4. The Education Plan should include basic science education for at least one year or at least 32 credits or at least 60 ECTS credits.**

Students who successfully complete all of the courses with a total value of 112 ECTS available in the program and achieve at least a weighted GPA of 2.00 out of 4.00 complete their internship with a value of 8 ECTS and graduate with a score of 120 ECTS.

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**5.5. It must include at least one and a half years or at least 48 credits or at least 90 ECTS credits of basic (engineering, science, health...etc.) sciences and vocational training appropriate to the relevant discipline.**

Within the scope of the program, there are 8 ECTS (practice-based) mandatory internships and 112 ECTS theoretical course applications. The theoretical and practical courses are planned in such a way as to provide basic knowledge and skills suitable for the computer programming profession.

<https://obs.gumushane.edu.tr/oibs/bologna/index.aspx?lang=tr&curOp=showPac&curUnit=12&curSunit=5193>

**5.6. It should be a general education that integrates the technical content of the educational program and for the purposes of the program.**

The basic education planned within the scope of the program ensures that the computer programming profession is applied at the technical staff level and that the student participates in this education as a practitioner.

[https://obs.gumushane.edu.tr/oibs/ogrsis/mufredat\\_dersleri.aspx](https://obs.gumushane.edu.tr/oibs/ogrsis/mufredat_dersleri.aspx)

**5.7. Students should be prepared with a basic application/design experience that will include relevant standards and realistic constraints and conditions, where they will use the knowledge and skills they have acquired in previous courses.**

After the basic education given within the scope of the program, students are provided with compulsory internship practices in the public and private sectors to use the knowledge and skills acquired in the courses and to evaluate the extent to which they affect the practice.

<https://kelkitaydindoganmyo.gumushane.edu.tr/tr/sayfa/staj-y%C3%B6nergesi/>

## **6. TEACHING STAFF**

**6.1. The teaching staff should be sufficient in number to cover all areas of the program and to ensure that each of them is at an adequate level, to maintain the faculty-student relationship, student counseling, university service, professional development, industry, professional organizations and employers.**

In accordance with the content of the education offered within the scope of the program, five academic staff members have been employed in the program at an adequate level who can provide faculty-student relations, student counseling, university services and professional development.

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**6.2. The teaching staff must have sufficient qualifications and ensure that the program is maintained, evaluated and developed effectively.**

It is possible to assign academic staff to improve themselves (graduate education, Erasmus, etc.) if they complete the legal processes for their education at home and abroad. Academic staff can participate in project and academic publication writing trainings given by the BAP unit. Academic staff are encouraged to participate in scientific meetings and learning activities organized at home and abroad.

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**6.3. The criteria for the appointment and promotion of faculty members should be determined and applied in order to provide and improve the above.**

The appointment and promotion of the faculty members working in the program are carried out in accordance with the “GÜMÜŞHANE UNIVERSITY OF GÜMÜŞHANE UNIVERSITY DIRECTIVE ON PROMOTION, APPOINTMENT AND REAPPOINTMENT CRITERIA FOR TEACHING MEMBERSHIP”.

<https://search.gumushane.edu.tr/media/uploads/personel/files/gu-akyay-yonetmeligi.pdf>

## **7. INFRASTRUCTURE**

**7.1. Classrooms, laboratories and other equipment should help to prepare a learning-oriented atmosphere that is adequate to achieve educational goals and program outcomes.**

There is no deficiency in the physical equipment required for the education provided within the scope of the program. All kinds of tools, equipment, classrooms and laboratories that can help learning processes are utilized.

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**7.2. There should be an appropriate infrastructure that allows students to do extracurricular activities, meets their social and cultural needs, creates an environment for professional activities, supports their professional development, and revitalizes student-faculty relations.**

Within the scope of the program, apart from education and training activities, club activities including desktop applications, games and robotic studies are carried out to strengthen the relationship between students and faculty.

**7.3. Programs should provide opportunities for their students to learn how to use modern engineering tools. Computer and informatics infrastructures should be at a sufficient level for the scientific and educational work of students and faculty members in order to support the educational goals of the program.**

Before the use of technological devices in the program, the relevant academic staff provides information about these devices and electronic systems.

**7.4. The library facilities offered to students should be at a sufficient level to achieve their educational goals and program outcomes.**

Within the scope of the educational activities offered in the program, the university central and college libraries are at a sufficient level to meet student needs.

<https://kutuphane.gumushane.edu.tr/tr/>

**7.5. The necessary security measures should be taken in the teaching environment and student laboratories. Infrastructure arrangements should be made for the disabled.**

The nature of the education provided within the scope of the program makes it necessary to practice in a laboratory environment. In this way, the necessary safety measures are taken in the laboratories. In addition, during the education of students with disabilities, there are some special regulations depending on the disability status of the student, and studies are planned to further develop these regulations.

## **8. INSTITUTIONAL SUPPORT AND FINANCIAL RESOURCES**

**8.1. The administrative support, constructive leadership, monetary resources of the university and the strategy followed in its distribution should be at a level that will ensure the quality of the program and its sustainability.**

Within the scope of the program, the necessary materials for organizing laboratories and classes have been provided by the university, and apart from these, there is no request for any resources from the university administration.

**8.2. The resources should be sufficient to attract and retain a qualified teaching staff and to enable them to maintain their professional development.**

Activities to support the development of academic staff within the program are specified in 6.2

**8.3. Sufficient monetary resources should be provided to provide, maintain and operate the infrastructure required for the program Jul.**

Except for the materials required for the organization of laboratories and classrooms within the scope of the program, the monetary resources for the purchase of up-to-date materials required for club activities carried out to support education can be met at a certain level

with the support of academic staff and the university. Increasing this support will contribute to the development and success of students through more up-to-date and innovative club activities.

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**8.4. Support personnel and corporate services should be provided to meet the program requirements. Technical and administrative staff should be of a number and quality that will support to ensure the program outputs.**

The number of academic staff assigned to improve the quality of education and the effective and qualified functioning of the program is sufficient.

## **9. ORGANIZATION AND DECISION-MAKING PROCESSES**

**9.1. The organization of the higher education institution and all decision-making processes within and between the rectorate, faculties, departments and other sub-units, if any, should be organized in a way that supports the realization of program outcomes and achievement of educational objectives.**

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## **10. PROGRAM SPECIFIC CRITERIA**

### **10.1. Program-specific criteria should be provided**

Within the scope of the program, education is provided at the knowledge, skill and application level with the planned course content. The data obtained and the feedback provided by the courses and laboratory studies based on knowledge and skills and the internship program conducted based on practice provide a criterion for evaluating the quality and functionality of the education provided.

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RESULT  
RESULT

The program aims to train technician-level staff in the field of information and technology with the educational curriculum planned in order to realize the determined educational goals and program outputs, and to close the gap in the public and private sectors with these elements. The planned educational activities are carried out on the basis of knowledge, skills and practice. During the process, the educational process is reviewed with the feedback received from the students and the necessary improvement studies are carried out if necessary.