



ASIIN Certification Report

Programmes

Associate Degree in Computer Programming

Higher Diploma in Computer Programming

Provided by

**Eastern Mediterranean University, Famagusta,
North Cyprus**

Version: 02 December 2015

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A About the Certification Process

Title of the Programmes	Previous certification
Associate degree in Computer Programming/Bilgisayar Programcılığı Önlisans	n.a.
Higher Diploma in Computer Programming/Bilgisayar Programcılığı Yüksek Tekniker Önlisans	n.a.
<p>Date of the contract: 18.03.2014</p> <p>Submission of the final version of the self-assessment report: 27.05.2015</p> <p>Date of the onsite visit: 25.-28.08.2015</p> <p>at: Famagusta, North Cyprus</p>	
<p>Peer panel:</p> <p>Waseem Baig, Student Girne American University;</p> <p>Prof. Dr. Bettina Harriehausen-Mühlbauer, Hochschule Darmstadt;</p> <p>Prof. Dr. Uwe Kastens, Universität Paderborn;</p> <p>Prof. Dr. Jörg Keller, FernUniversität Hagen;</p> <p>Dipl.-Ing. Manfred Reinhardt, formerly IBM</p>	
<p>Representative of the ASIIN headquarter: Dipl.-Kulturw. Jana Möhren</p>	
<p>Responsible decision-making committee: Certification Committee</p>	
<p>Criteria used:</p> <p>Standards for the Certification of (Further) Education and Training for courses and modules related to Computer Sciences, Technology, Natural Sciences and Business Economics as of 27.07.11.</p> <p>European Standards and Guidelines as of May 2015.</p>	

B Characteristics of the Programmes

a) Name of the programme	b) Degree awarded upon conclusion	c) Mode of Study	d) Duration & Credit Points	e) First time of offer & Intake rhythm	f) Number of students per intake	g) Fees
Associate degree in Computer Programming	Associate Degree	Full time	4 Semester 125 ECTS (71 EMU credits)	Spring 2009 / / Fall-Spring semester	15 in fall semester, 10 in spring semester	€ 2,543/year for Northern Cyprus students
Higher Diploma in Computer Programming	Higher Diploma	Full time	2 Semesters (Ass Degree + 1 year)/ 60 ECTS (16 EMU credits)	Spring 2011-2012 / Fall-Spring semester	15 in fall semester, 10 in spring semester	€ 2,543/year for Northern Cyprus students

For the Associate degree programme the institution has presented the following profile in the self-assessment report:

The aim of the Computer Programming programme is to equip students with a strong foundation needed for practical applications in Computer Programming (CP). The programme focuses on satisfying the needs of learned education between the theoretical and practical concepts required for each module. The educational objectives of the Computer Programming programme are published on the programme web site at <http://sct.emu.edu.tr/btep> and <http://www.emu.edu.tr>.

For the Higher Diploma degree programme the institution has presented the following profile in the self-assessment report:

In addition to the objectives of the A.C.P. in the H.D.C.P. an extra year is added and the first semester of this year consists of five advanced technical courses which give the students a chance to improve their practical applications and problem solving abilities. The second semester of the extra year is entirely spent in industry as practical training, finishing with a graduation project. In the second semester of the extra year, the students spend 80 working days in industry and at the end of this training they fill a log book and prepare a training report. In the log book there is an evaluation page which is filled by the responsible person in the company stating the performance of the student. The students have to submit this report and log book to the program training committee and also have to prepare a powerpoint presentation about their experiences gained to the academic

Characteristics of the Programmes

staff. After presentation a student may be given successful (S) or unsuccessful (U). Those students who are given U have to repeat the training

C Peer Report for the ASIIN Certificate

1. Formal Information

Criterion 1.1 Formal Information

Evidence:

- Self-Evaluation Report (SER)
- Programme website: <http://sct.emu.edu.tr/departments/CPIT/index.htm>

Preliminary assessment and analysis of the peers:

The panel considered the formal information provided for the programmes to be adequate and transparent. Information about programme names, degrees, modes and duration of study, enrolment schedules and places as well as fees were made available for both the Associate Degree and the Higher Diploma programme.

In this context, the panel took note that the language of instruction for the programmes is Turkish. The School of Computing and Technology as the responsible unit within the university also offers English language Bachelor and Master degree programmes.

Criterion 1.2 Legal relationship: mutual rights and duties

Evidence:

- Programme website: <http://sct.emu.edu.tr/departments/CPIT/index.htm>
- Rules and Regulations on website: <http://mevzuat.emu.edu.tr/Content-en.htm>

Preliminary assessment and analysis of the peers:

Due to the setting of the degree programmes within a regular university context, the rights and duties of students as well as those of the university correspond to those of higher level programmes. Accordingly, all necessary information is provided in the rules and regulations administering the student life cycle (see further criterion 7.1).

Final assessment of the peers after the comment of the Provider regarding criterion 1:

As the university made no comments this criterion, the peers upheld their original analysis: they considered the criterion to be fulfilled.

2. Courses/Modules: Content, Policy and Implementation

Criterion 2.1 Learning outcomes of the course/module

Evidence:

- Self-Evaluation Report
- Programme website: <http://sct.emu.edu.tr/departments/CPIT/index.htm>
- Discussions with university management, school management, programme directors

Preliminary assessment and analysis of the peers:

The panel discussed the expected competence profile of graduates with those responsible from the university. They understood that graduates should become programmers – as opposed to software developers – able to write code subsequently checked by someone else, write in scripting languages (such as PHP) and work on typical client server applications as well as manage network and computer hardware installations. Graduates should be in a position to write small projects, web or desktop applications. In terms of programming language skills, the School explained that students should acquire different ones, though they did not wish to be too specific in the general objectives (see further criterion 2.4).

The panel concurred with these explanations but did not find them well reflected in the current written description of the respective programme objectives which they considered to be too abstract to allow external stakeholders to grasp the actual intended competence profiles for both programmes.

Nevertheless, the peers gained the impression that the competence profile envisaged by the university matched the expectations from students as well as the labour market and reflected actual needs (see further criterion 2.2).

When aligning the programme outcomes of the Associate Degree with the expectations of level 5 of the European Qualifications Framework, the peers considered that comprehensive knowledge, both theoretical and practical, within the specific field of computer programming, was to be acquired by students. An awareness of the boundaries of their field is to be acquired by the intended ability to follow the latest developments in the field and awareness of professional ethics. Students shall also learn to use methods and techniques, algorithmic thinking and planning, design and implement desktop and database applications as well as code and test software, thus gaining a range of cognitive and practical skills required to detect and develop solutions to problems. As students are expected to work in teams, apply professional ethical principles and use oral and written

communication skills, they shall be prepared for activities in which groups can be effected by unpredictable changes and also review and develop their own and other's performance.

As the intended learning outcomes for the Higher Diploma are nearly identical, compliance with the EQF level 5 outcomes was equally considered. The additional learning outcomes focus on additional practical and communication skills to facilitate an even better integration into the working world.

The transparency of objectives was found to be guaranteed by the information provided on the School's website. Furthermore, students are provided with hard copies of all relevant course information at the beginning of the semester.

Criterion 2.2 Prospects of the labour market and practical orientation

Evidence:

- Self-assessment report
- Results from exit and alumni survey
- Results from employer survey
- Discussions with lecturers, graduates and students

Preliminary assessment and analysis of the peers:

The panel gained the overall impression that the programmes meet the needs of the country. They found them to be complementary to the higher level information technology programmes. In terms of involvement of the labour market in the design and review of the programmes, the panel understood that feedback is collected in a number of ways: firstly, the Industrial Advisory Board meets at least annually, secondly, surveys have been developed to directly ask the impression of employers of graduates' competences, and thirdly, direct interaction takes place in the frame of the students' internships.

In the Associate Degree programme, students complete a 40 day internship in industry, the so-called summer training, in the period between the spring and fall semester. During the second extra semester of the Higher Diploma programme (i.e. the 5th semester in total), students spend 80 days in industry, the so-called industrial training (sometimes also called semester or summer training). The panel ascertained that students are principally responsible for finding their own place – though support is offered when needed – and that staff members have to approve the company and the expected tasks to be carried out in order to guarantee that they are aligned to the programme. During the placement, the supervisor at the company has to fill out a daily log-book which is subsequently submitted to the responsible staff member. Students have to prepare a report and give a

presentation about their internship activities. The peers considered these mechanisms to be sensible and suitable for the implementation of the programmes.

Criterion 2.3 Admission requirements

Evidence:

- Admission rules and entrance exam : http://mevzuat.emu.edu.tr/5-1-1-Rules-Entrance_exam.htm
- Discussions during onsite visit

Preliminary assessment and analysis of the peers:

Admission requirements to the associate degree programmes are based on national regulations for access to higher education, namely allowing all national graduates of vocational or regular high schools. Depending on the results of a central, national entrance exam, students might be exempt from the need for pre-registration. Requirements for applicants from Turkey or other countries equally are based on the completion of high school level studies.

For the Higher Diploma programme, the panel understood that graduation from an Associate Degree programme in the field of computer programming or a related area is mandatory, independent of the nationality of the applicant. They considered this practice to be adequate. At the same time, the panel understood that graduates of a regular high school could already enroll in the Higher Diploma programme and would be doing the first two years in parallel with the two-year students.

While the admission rules for the Associate Degree programme are published and transparent on the university website, the panel was not in a position to confirm the same for the Higher Diploma programme. This should be remedied in order to achieve full transparency for all external stakeholders. The panel acknowledged in this context that the majority of students in the programmes currently had a local background with only a few students coming from Turkey.

Criterion 2.4 Contents

Evidence:

- Module descriptions (Course Policy Sheets) in SER
- Sample Industrial Training Logbook
- Curriculum and course descriptions on website: <http://sct.emu.edu.tr/departments/CPIT/index.htm>
- Discussions during the onsite visit

Preliminary assessment and analysis of the peers:

The panel discussed with the university how the programme objectives are substantiated by the curriculum. To this regard, they would consider an objectives-module-matrix matching the programmes courses to the objectives defined by the university to be a helpful tool.

Based on the review of documents, the peers questioned how a number of objectives were to be achieved. With regard to the English language competence of graduates, the peers understood that the skills level of incoming students was very low so that at the end of the programme no more than a middle A2 level (according to the Common European Framework of Reference for Languages) could be reached. While the panel agreed with the university that most graduates would not need significant language skills in their jobs, the members were not convinced that students were aware that their skills would be too low to continue further studies at the university – as all Bachelor level programmes are offered in English only. The panel acknowledged that a number of students expressed their wish to effectively continue further studies. Furthermore, due to the comparatively high number of students for language courses, around 20, in particular the speaking skills seemed to be underdeveloped, particularly when analyzed against the expectations associated to the programme objectives.

In terms of the ability to work in teams, the panel positively noted that the responsible persons had already asserted that the Associate Degree programme currently did not fully meet its own objectives as it currently only includes individual projects. However, it is foreseen to include a group project in the database course. The panel commended the plan to include a project requiring students to jointly develop a project application, implement the project plan and present results to a jury at the end of the course.

The panel also picked up the discussions currently ongoing within the School regarding the extent of programming languages in the School. At the moment, students are expected to use and write in PHP and HTML for web-based applications only. Object-oriented programming languages, such as C++, are currently offered only as an elective course, but there are plans to convert it into a mandatory one. The peers would strongly support such a development so that students do not only get skills in using and writing scripting languages such as PHP but can learn the basics of object-oriented programming languages. They would thus ideally be enabled to also more easily apply other object-oriented languages such as C# which are currently only sketchily taught so that a profound understanding of them could not be reached.

In terms of software engineering methods, the panel acknowledged that these are only touched in electives courses as they do not form part of the key competences envisaged

for the students. The panel principally concurred with this view but nevertheless found it worthwhile for the School to consider whether students should not be made aware of the principal methods in the field, also with a view to further developing their knowledge in light of the need for lifelong learning.

Final assessment of the peers after the comment of the Provider regarding criterion 2:

The panel positively acknowledged the updated programme learning outcomes statements for both programmes. Together with the newly provided objectives matrix, they helped to complete the picture of the programmes under review. In particular, the peers now considered the statements to be more precise and better suited to indicate the expected competence profile. They pointed out that an objectives matrix can be a helpful tool for both teaching staff and students in the process of reviewing a programme internally as well as checking expectations towards a programme against its implementation.

With regard to the admission for the Higher Diploma (3-year programme), it became evident that no direct admission was possible without graduation from the Associate Degree (2-year programme). While they accepted this practice, they pointed out that the English language website did not transparently provide the information. The panel acknowledged that the Turkish language website – which might be more relevant for the Turkish speaking target group of the programme – might be more specific.

The peers note that students who wish to continue their studies in an English-language programme have to pass a proficiency test and, if necessary, take additional preparatory classes. It was not completely clear whether students are actually aware of this need. However, English language skills are now excluded from the programme objectives. The panel nevertheless felt that the School should ensure both clear communication about the language issue and continue its efforts in enhancing students' skills.

The inclusion of team-projects in two modules are highly appreciated by the panel. However, they noted that BTEP104 and BTEP201 do not mention a team based project. The panel also took note of the plans to make the module on object-oriented programming mandatory as had already been announced during the visit. In this manner, students would be introduced to the concepts of object oriented programming and then choose one of the OO languages (C++ or Java) to exemplify the general characteristics of object oriented programming in order to be enabled to project the concepts onto any OO language and not be fixed on one language only. The peers trust that the School will receive the necessary authorization for the change in the curriculum from the university authorities. Furthermore, the panel positively acknowledged that the university had already made changes to include software engineering as had been suggested.

Overall, the peers considered criterion 2 to be fulfilled.

3. Courses/Modules: Structures, Methods and Implementation

Criterion 3.1 Structure

Evidence:

- Module descriptions (Course Policy Sheets) in SER
- Curriculum on website: <http://sct.emu.edu.tr/departments/CPIT/index.htm>
- Discussions during onsite visit

Preliminary assessment and analysis of the peers:

The panel considered the structure of the programme to be sensible and the modules (courses) on offer to constitute adequate teaching and learning entities. A number of elective modules (area electives) complement the mandatory ones. The panel understood that the range of area electives offered had changed since the preparation of the self-assessment documents. They thus asked for an updated list in order to conclude their analysis of the programmes' structure and content.

Criterion 3.2 Workload

Evidence:

- Module descriptions (Course Policy Sheets) in SER
- Curriculum on website: <http://sct.emu.edu.tr/departments/CPIT/index.htm>
- Discussions with students, graduates and teaching staff during onsite visit

Preliminary assessment and analysis of the peers:

The university works with its own credit point system, so-called EMU credits. Additionally, ECTS credits points are provided as reference. While EMU credits are mostly contact-hour based, no direct correlation between the two systems exists. According to the self-evaluation report and the discussions, the workload of students is spread over 16-18 weeks per semester during which teaching, mid-term and final exams take place. The period between the spring and the fall semester is generally left free for summer school activities and holidays. As a consequence the workload linked to the indicated ECTS – with 30h per ECTS – would lead to students having to work between 50 and 56 h during those weeks. If the calculations and indications made in the self-assessment report reflected the actual student reality, the panel would consider such a workload to be comparatively

high and questioned whether it might lead to overwork of students when the full year was not made use of. However, during the discussions with the students, the panel gained the impression that their workload was in fact much lower than what would have been conjured from the documentation and the ECTS as currently awarded. The actual implementation of the programme seemed to leave room for increasing the student workload. The peers ascertained that student workload was part of the issues checked for in the student surveys at the end of each semester. They encouraged the university to continue monitoring the workload more precisely, and to also take adaptive measures should discrepancies between the estimated and actual workload be detected. Consequently, the ECTS credits awarded and documented, also publicly, would have to be adapted as well in order to reflect actual workload.

During the period between the spring and the fall semester, so-called summer school courses are offered during 40 working days. Students who have failed a course during the previous year have the opportunity to follow these courses – with double daily teaching hours – in order to proceed to the next semester without loss of time.

It is recommended to continuously check whether the student workload is adequately distributed during the weeks of lecture and during the whole semester.

Criterion 3.3 Teaching methodology

Evidence:

- Module descriptions (Course Policy Sheets) in SER
- Discussions during onsite visit

Preliminary assessment and analysis of the peers:

With regard to the teaching methodology, the peers were able to revise their opinion as had been gained from the written material based on the explanations received during the onsite visit. The module descriptions gave the impression that some courses contained only three hours of lectures with no related labs or interactive teaching methods. However, the panel learned that all courses are composed of little theoretical, front-of-class teaching but much more active methods including one-to-one supervision of tasks to be carried out at the computer. Additionally each student has to implement an individual term project task for the duration of the entire semester. Progress is observed during weekly meetings with the responsible instructor.

Criterion 3.4 Support and assistance

Evidence:

- Self-Evaluation Reports

- Results from Exit and Alumni survey

Preliminary assessment and analysis of the peers:

The relation between lecturers and students was considered to be one of the strong points of the programme. The panel commended that lecturers were found to be always accessible and helpful for students, also outside of the designated weekly opening hours. All lecturers were engaged and motivated to work for a good implementation of the programme.

With regard to providing information and help to the students, all course descriptions and schedules were made available on the School's website as well as in hard copies in the department. Furthermore, lecturers also function as advisors who advise and approve students' choices of electives thus ensuring a meaningful composition of individual course schedules.

Final assessment of the peers after the comment of the Provider regarding criterion 3:

The up-to-date list of elective courses was analysed by the panel. As had been understood during the visit, a module on object-oriented programming (Advanced Visual Programming) is part of the electives.

The panel took note of the explanations regarding the distribution of student workload. While it became clear that the workload was spread over more weeks than had originally been thought, and that accordingly the expected weekly workload was lower, the panel was not able to confirm that this reflected the actual student reality properly. As a consequence, the peers still considered it worthwhile for the university to establish in a more systematic manner whether a module really creates the amount of work corresponding to the specified ECTS points, and whether the students can accomplish that amount of work during 6 months.

The updated module descriptions were appreciated by the peers. They considered them to be an even more transparent means of communication about relevant aspects of the courses.

Overall, the peers considered the criterion to be fulfilled.

4. Examination: System, Policy and Forms

Criterion 4 Exams: System, policy and forms

Evidence:

- Exam rules: <http://mevzuat.emu.edu.tr/Content-en.htm>
- Exam schedule: <http://sct.emu.edu.tr/>
- Discussions with lecturers and students during onsite visit
- Review of exams and project reports during onsite visit

Preliminary assessment and analysis of the peers:

The exam methods in use include written and practical exams or homework, depending on the type of course. A number of exams, for example writing codes, are carried out directly on the computer. The panel positively noted the different types of exams in use to ascertain the achievement of intended learning outcomes.

They questioned to which extent attendance also contributed to the grading of courses as seemed to be the case for a few modules. The peers understood that students could obtain a few additional points towards raising a course grade for their performance during lectures but not for mere attendance. This would be made transparent to students at the beginning of a semester. The panel considered the grading system to be generally adequate and transparent for the stakeholders.

Despite the fact that mid-term and final exams take place immediately after the designated weeks for teaching, students confirmed having sufficient time for preparation. Make up exams are offered two weeks after the original exam dates. The panel considered this mechanism to be adequate to facilitate students' progression within the programmes.

Final assessment of the peers after the comment of the Provider regarding criterion 4:

The panel appreciated the revised module descriptions.

They considered the criterion to be fulfilled.

5. Resources

Criterion 5.1 Staff

Evidence:

- CVs of staff members in SER

- Overview of teaching staff areas of interests
- Discussions during onsite visit

Preliminary assessment and analysis of the peers:

As indicated previously in this report (criterion 3.4), the relation between lecturers and students was considered to be one of the strong points of the programmes. Furthermore, the peers considered that the staff composition was suitable to carry out the programme as planned.

The peers also acknowledged that staff members, despite a comparatively high teaching load of about 12-16 hours for a full-time lecturer/associate professor, endeavoured to implement research activities. They conceded that publications in the field of programme development are difficult so that a number of staff members carried out their published research in other fields of specialization. The latter is necessary due to the point-based system in place for the promotion of staff, collecting points for example for the publication in journals index by ISI, Scopus or similar. It was also confirmed that financial support was provided for attending conferences internationally.

Criterion 5.2 Institutional setting, funding and equipment

Evidence:

- Self-Evaluation Report
- Information about computer center on website:
<http://ww1.emu.edu.tr/en/services/computer-center/c/720>
- Information about library on website: <http://library.emu.edu.tr/>
- Overview of cooperation agreements in SER
- Visit of facilities and discussions during onsite visit

Preliminary assessment and analysis of the peers:

The budget of the university stems from both student fees and state funds, the latter from North Cyprus as well as Turkey. Distribution among the faculties, departments and schools is made by the university administration (rector, executive board) based on the respective needs. The peers convinced themselves that the funding for the programme under review was adequate. The resources for teaching and learning, in particular classrooms, computer rooms, laboratories and library were considered to be sufficiently well maintained. In particular, the panel commended that students had access to the hard and software in the labs around the clock when requested. They also confirmed that access to the necessary software resources and library access was possible also from their private computers.

Final assessment of the peers after the comment of the Provider regarding criterion 5:

The panel noted the comment regarding the teaching load. They found their original analysis to be confirmed and considered the criterion fulfilled.

6. Quality Management: Development and Enhancement

Criterion 6.1 Quality assurance & enhancement

Evidence:

- Self-Evaluation Report
- Regulations for Academic Assessment and Quality Improvement at Eastern Mediterranean University
- Eastern Mediterranean University Quality Assurance Handbook
- Discussions during onsite visit

Preliminary assessment and analysis of the peers:

The quality assurance activities are led and implemented by the Quality Management Committee at School level. It reports to the university level University Board for Quality Coordination and Evaluation and its academic units Commission. While at the School level, it was understood that the composition consisted only of teaching staff, the university commission includes representatives from the student body as well as the business community. The quality management principally consists of conducting a number of surveys – of students, graduates and employers, as well as of the collection of statistical data about student numbers, composition of the student body, drop-out and graduation rates. Planned changes to the curriculum are decided by the Curriculum Committee at School level and subsequently have to be approved by the University Board.

At the end of each semester, students fill out so-called instructor and course evaluations focussing on the implementation of the course per se and the quality of the lecturers but also issues such as workload. From the survey results, a report is generated which is discussed in the Quality Committee as well as by the School Director and the respective staff members. The panel learned that students are not normally informed about the results of the surveys. While some lecturers share results out of their own initiative, it is generally found hard to do so as evaluations only take place after the final exams and students might not return to the same lecturer within the duration of the programme. The peers

raised the issue of closing feedback loops, i.e. the last step in a quality circle which would consist of informing students and all instructors in quality management outcomes.

Criterion 6.2 Instruments, data and methods

Evidence:

- Self-Evaluation Report
- Regulations for Academic Assessment and Quality Improvement at Eastern Mediterranean University
- Eastern Mediterranean University Quality Assurance Handbook
- Survey results and questionnaires: exit survey, alumni survey, employer survey
- Instructors evaluation questionnaire
- Statistics about student number, drop-outs

Preliminary assessment and analysis of the peers:

In addition to the course-based surveys, graduates and employer surveys are in place focussing more on the actual achievement of intended learning outcomes. The statistics about student progression, drop-out rates and student numbers did not indicate any significant deviations from the average nor average study durations nor particularly high drop-out rates. The relatively low student numbers overall might also benefit the positive situation. The panel concluded that those responsible for managing the programme were generally aware of stakeholders' opinions and found the surveys to be a good tool for the further development and effectiveness of the quality management system. Information from statistical data was also drawn upon for decision making.

Final assessment of the peers after the comment of the Provider regarding criterion 6:

The peers positively acknowledged that the School of Computing and Technology plans to implement their suggestion regarding the feedback of student survey results to the survey. The members acknowledge that the School currently depends on the central administration's rules about the timing of the surveys at the end of the semester. Should the request for changing that date not be accepted by the university administration, other means would have to be found to ensure closing the feedback loops. While students would not necessarily be present with the same lecturer in the same course in a following semester, they might still be in contact with the lecturer in other classes. Furthermore, oral feedback mechanisms, focus groups or similar could also be considered. Furthermore, the peers also considered that students might be included in the Quality Management Committee, not least to be in line with European Standards and Guidelines for Quality Assurance in Higher Education. Nevertheless, the panel much valued the School's posi-

tive reaction to their recommendations and considered the criterion to be generally fulfilled.

7. Documentation & Transparency

Criterion 7.1 Relevant documents

Evidence:

- Rules and regulations: <http://mevzuat.emu.edu.tr/Content-en.htm>
- Discussions during the onsite visit

Preliminary assessment and analysis of the peers:

The panel acknowledged that all rules and regulations governing the student life cycle, i.e. admission, progression and graduation were transparently published on the university website. They gained the impression that more information would be available on the Turkish language site than provided on the English one. As the programmes are taught in Turkish language and thus the stakeholders would find information in their language, this was considered adequate.

Criterion 7.2 Certificate upon conclusion

The leaving certificate appropriately grants all interested parties insight into the structure, contents and level of the concluded course/module and the learner's individual performance.

It provides information on how the final mark was awarded and explains in a transparent way which achievements were relevant in which way.

Evidence:

- Sample Leaving Certificates
- Sample Transcripts

Preliminary assessment and analysis of the peers:

At the time of the onsite visit, the Certificate Supplements for the programmes had not been issued. However, the peers understood that this would be provided by the university administration starting from the upcoming semester and would then be handed out to students upon request. The panel asked that a sample was submitted to them. They also pointed out that the Supplement should be given automatically to all students as a mobility tool complementing the leaving certificate and Transcript of Records.

Final assessment of the peers after the comment of the Provider regarding criterion 7:

The model of the Diploma Supplement provided was considered adequate by the panel. The panel also understood that the School had made a request to the Rectorate that the Diploma Supplement should automatically be provided to all graduates, not only upon request. As this would contribute both to transparency and mobility of graduates the panel supported such a request.

Overall, the panel considered the criterion to be fulfilled.

D Additional Documents

Before preparing their final assessment, the panel asks that the following missing or unclear information be provided together with the comment of the provider on the previous chapters of this report:

- D 1. Objectives-Module Matrix for each Programme
- D 2. Up-to-date list of Area Elective Modules

E Comment of the Provider (26.10.2015)

The institution provided the following statement as well as additional documents on the following issues:

- D 1. Objectives-Module Matrix for each Programme
- D 2. Up-to-date list of Area Elective Modules
- D 3. Module Outlines
- D 4. Sample Diploma Supplement

Re Criterion 2.1

The educational objectives of the Associate Degree programme are rewritten and listed below.

Specialist Competences

Graduates:

- have developed foundations necessary for informatics, in particular with mathematical, logical, statistical, and physical tools.
- are capable of understanding foundations of informatics, in an abstract form which is not dependent on actual technical realisation.
- are able to assess the algorithmic operations with their limitations.
- have developed knowledge about algorithms, data structures and problem-solving patterns.
- have developed understanding of the composition and functioning of computers and key informatics systems such as operating systems, database systems, and communication systems.
- are able to develop, verify and test software projects typically used in informatics.
- are able to develop solutions for practical problems using informatics techniques and evaluate them.

Social Competences

Graduates:

- have developed the knowledge for the history of informatics.
- are aware of ethical questions and security problems connected with the application of information processing systems.
- have developed interpersonal skills in order to share knowledge and experience with others

- have the ability to participate effectively in the planning and execution of team-based projects
- are able to independently complement and deepen the knowledge acquired during their studies and to adapt to developments in the field.
- are prepared to take on responsibility in technical roles. In particular, periods of practical training help to develop the professional skills of graduates.
- will be aware of and understand international and global developments in information technology and their possible effects on business and society.

Higher Diploma programme is a three year programme: two-year associate degree followed by one additional academic year which mainly involves industrial integration. Beside the mentioned programme objectives above, the three year programme covers the following additional objectives.

Graduates:

- have the chance to deepen their experience to adapt to developments on real life applications.
- are able to integrate to the industry due the long training period.
- have experience of solving application problems in teams covering all phases of system development, from analysis of requirements, specification and implementation to testing.
- have developed knowledge for data availability, confidentiality and integrity.
- will have made use of opportunities to extend their programming skills.

Re Criterion 2.3

There is no direct entrance to a three-year higher diploma programme in Eastern Mediterranean University. In order to get acceptance to the three year programme, a student has to graduate from the related two-year associate degree programme.

Re Criterion 2.4

Those students who wish to continue English-medium based further studies, they should pass English Preparatory School Proficiency Exam. Students who fail this test are required to attend the English Preparatory School programs.

Teaching methodology of courses are updated after the preliminary feedbacks of the ASIIN during on-site visit. Consequently, BTEP104 (Database Management System), BTEP201 (Visual Programming) and BTEP202 (System Analysis and Design) courses involves team-based projects. Updated module outlines are available in Appendix D3.

The curriculum of the Computer Programming programme is considered for modifications according to the feedbacks of the ASIIN visiting team. BTEP243 (Object Oriented Programming) course is defined as a mandatory course within the curriculum and sent to the rector's office for approvals. Once the required approvals are taken, the curriculum will be modified. The new curriculum will be applied starting from 2015-16 Spring semester.

The course content for BTEP202 (System Analysis and Design) is considered for modifications to include the software engineering methods. This modification does not require any approval from the rector's office, thus can be applied immediately. See Appendix D3 for the updated course outline.

Re Criterion 3.2

Associate Degree programme has a 2-year curriculum where totally 125 ECTS and Higher Degree programme has + 1 year curriculum where totally 60 ECTS are assigned. This means each semester has 30 ECTS credit on average. Each ECTS has a workload of 30 hours on average which means $30 \times 30 = 900$ hours workload is assigned to the students each semester. Although there are about 14 weeks for the lectures in each semester, this does not mean that a semester consists only 14 weeks. Two weeks are assigned for the midterm examinations, two weeks are assigned for the final examinations, one week is assigned for the make-up examinations and two weeks are assigned for the re-sit examinations. Totally $14 + 2 + 2 + 1 + 2 = 21$ weeks are assigned to each semester on the defined academic calendar. If the workload of each semester is divided by the number of weeks we obtain $900/21 \cong 43$ hours workload for each student per week.

Re Criterion 3.3

Module outlines are updated according to the feedbacks of the ASIIN visiting team (See Appendix D3). Details about the teaching methodology, exam types and term project instructions are clearly stated.

Re Criterion 4

Module outlines are updated according to the feedbacks of the ASIIN visiting team (See Appendix D3). Details about the attendance requirements and method of assessment are clearly stated.

Re Criterion 5.1

The teaching loads are decided by the University Board.

Re Criterion 6.1

The current evaluation process in the university only allows students to make evaluations but not view or comment on the results of these evaluations. The evaluations are done just before the final exam period, and the results are seen by the instructors and administrators after last day for assigning the letter grades. Thus, the instructors do not see the students anymore to discuss the evaluation results. This is the policy of the Eastern Mediterranean University. A written request is done to the rectorate about this issue, according to the feedbacks of the ASIIN visiting team. The aim is to start the evaluation process and collect the data earlier within the semester, and be able to discuss it with the students before the semester ends. This will include the students into evaluation process to make comments about the obtained results and close the feedback loop.

Re Criterion 7.2

As mentioned above, diploma supplements are provided to Computer Programming graduates upon request. A written request to the rectorate is already done to give this document to all graduates. A sample diploma supplement is shown in Appendix D4.

F Summary: Peer recommendations (13.11.2015)

Taking into account the additional information and the comments given by university the peers summarize their analysis and **final assessment** for the award of the ASIIN certificate as follows:

Programmes	ASIIN Certificate	Maximum duration of certification
Associate Degree Computer Programming	With requirements	31.12.2020
Higher Diploma Computer Programming	With requirements	31.12.2020

Requirements

For all programmes

- A 1. (ASIIN 3.2) It must be demonstrated that the ECTS points reflects the actual student workload.
- A 2. (ASIIN 6) Students should be involved in the quality assurance processes at committee level. All students should receive the feedback of quality assurance instruments' results (to close feedback loops).
- A 3. (ASIIN 7.2) A Certificate Supplement should be issued automatically to *all* graduates.

For the Associate Degree

- A 4. (ASIIN 2.1, 2.4) It should be ensured that all students acquire team working skills as foreseen in the programme objectives (as already planned).

Recommendations

- E 1. (ASIIN 2.4) It is recommended to continue efforts towards enhancing students' English language skills.
- E 2. (ASIIN 3.2) It is recommended to continuously check whether module really creates the amount of work corresponding to the specified ECTS points, and whether the students can accomplish that amount of work during 6 months.

G Decision of the Certification Committee (02.12.2015)

Assessment and analysis for the award of the ASIIN Certificate:

The Certification Committee discussed the report and the recommendation of the peer panel.

The committee made a number of editorial changes to the proposed requirements and recommendations in order to make them precise and also to align the wording between the three procedures implemented at the university.

The Certification Committee decided to award the ASIIN certificate as follows:

Programmes	ASIIN Certificate	Maximum duration of certification
Associate Degree Computer Programming	With requirements	31.12.2020
Higher Diploma Computer Programming	With requirements	31.12.2020

Requirements

For all programmes

- A 1. (ASIIN 3.2) It must be demonstrated that the ECTS points reflects the actual student workload.
- A 2. (ASIIN 6) Students should be involved in the quality assurance processes at committee level. All students should receive the feedback of quality assurance instruments' results (to close feedback loops).
- A 3. (ASIIN 7.2) A Certificate Supplement should be issued automatically to *all* graduates.

For the Associate Degree

- A 4. (ASIIN 2.1, 2.4) It should be ensured that all students acquire team working skills as foreseen in the programme objectives (as already planned).

Recommendations

- E 1. (ASIIN 2.4) It is recommended to continue efforts towards enhancing students' English language skills.
- E 2. (ASIIN 3.2) It is recommended to continuously check whether module really the amount of work corresponding to the specified ECTS points, and whether the students can accomplish that amount of work during 6 months.

Appendix: Programme Learning Outcomes and Curriculum

According to the self-evaluation report the following **learning outcomes** shall be achieved by the associate degree programme:

Students will be able to:

- Graduates have up to date fundamental theoretical and practical knowledge in CP field
- Graduates can use all practical skills and also basic theoretical methods and techniques in the CP field
- Graduates are well informed on institutional culture, management and organizational components of business
- Graduates can utilize algorithmic thinking and planning approaches in their applications
- Graduates can design and implement database applications for small and medium size projects
- Graduates can design and implement web based projects
- Graduates can design and implement desktop applications using up to date approaches and tools
- Graduates can code and test software components with the given specifications
- Graduates can use different hardware and software components in a computer system
- Graduates can work effectively both in teams and individually
- Graduates can follow the latest developments in the IT field with the awareness that lifelong learning is essential
- Graduates has improved skills in oral and written communication in the IT field (in parallel with the objectives, students are assigned homework, project work, prepare reports and make PowerPoint presentations in some courses)
- Graduates have basic English knowledge in oral and written communication
- Graduates are aware of the importance of use of professional ethics in the IT field
- Graduates can detect problems and apply basic problem solving skills

For the higher diploma the following additional learning outcomes are intended:

- Graduates gain the ability for more practical applications

Appendix: Programme Learning Outcomes and Curriculum

- Graduates can find a chance to integrate to the industry more easily
- Graduates are specialized in core areas of related fields
- Graduates can find a chance to communicate with more businessman from the industry

The following **curriculum** is presented:

First Year Fall Semester (18/71 Credits, 30/125 ECTS) Birinci Yıl Güz Dönemi (18/71 Kredi, 30/125 AKTS)						
Course Code / Ders Kodu	Ref. Code / Ref. Kodu	Course Name / Ders Adı	Credit / Kredi (Lec/Lab/Tut)	ECTS / AKTS	Category / Kategori	Prerequisite(s) / Önkoşul
ENGL171	3H113	English – I / İngilizce - I	(3,0,0) 3	6	UC	-
MATE115	3H114	Basic Mathematics / Temel Matematik	(3,0,1) 3	5	AC	-
BTEP101	3H115	Introduction Algorithm and Programming / Algoritma ve Prog. Giriş	(2,2,0) 3	5	AC	-
BTEP103	3H116	Fundamentals of Information Tehcnologies / Bilgi Teknolojileri Temek Kavramları	(3,0,0) 3	4	AC	-
BTEP105	3H117	Basic Office Applications / Temel Ofis Uygulamaları	(2,2,0) 3	5	UC	-
EETE143	3H118	Electrotechnology / Elektroteknik	(2,3,0) 3	5	AC	-

First Year Spring Semester (17/71 Credits, 29/125 ECTS) Birinci Yıl Bahar Dönemi (17/71 Kredi, 29/125 AKTS)						
Course Code / Ders Kodu	Ref. Code / Ref. Kodu	Course Name / Ders Adı	Credit / Kredi (Lec/Lab/Tut)	ECTS / AKTS	Category / Kategori	Prerequisite(s) / Önkoşul
HIST280	3H122	Ataturk's Principles and History of Turkish Reforms / Atatürk İlkeleri ve Inkilap Tarihi	(2,0,0) 2	2	UC	
ENGL172	3H123	English – II / İngilizce - II	(3,0,1) 3	6	UC	ENGL171
BTEP102	3H124	Data Structure and Prog. / Veri Yapıları ve Programlama	(2,2,0) 3	5	AC	BTEP101
BTEP104	3H125	Database Management Systems / Veri Tabanı ve Yönetim Sistemleri	(2,2,0) 3	5	AC	
BTEP106	3H126	Principles of Business / Genel İşletme	(3,0,0) 3	5	AC	
EETE264	3H127	Introduction to Computer Hardware / Bilgisayar Donanımına Giriş	(2,3,0)3	6	AC	-

Appendix: Programme Learning Outcomes and Curriculum

Second Year Fall Semester (18/71 Credits, 36/125 ECTS) İkinci Yıl Güz Dönemi (18/71 Kredi, 36/125 AKTS)						
Course Code / Ders Kodu	Ref. Code / Ref. Kodu	Course Name / Ders Adı	Credit / Kredi (Lec/Lab/Tut)	ECTS / AKTS	Category / Kategori	Prerequisite(s) / Önkoşul
BTEP201	3H131	Visual Programming / Görsel Programlama	(2,2,0) 3	5	AC	BTEP102
BTEP203	3H132	Internet Programming- I / İnternet Programcılığı - I	(2,2,0) 3	5	AC	-
BTEP205	3H133	Operating Systems / İşletim Sistemleri	(2,2,0) 3	5	AC	-
ENGL275	3H134	English for Information Technology / Mesleki İngilizce	(3,0,0) 3	6	AC	ENGL172
AS01	3H135	Area Elective - I / Alan Seçmeli - I	(3,0,0) 3	5	AE	-
AS02	3H136	Area Elective - II/ Alan Seçmeli - II	(3,0,0) 3	5	AE	-
BTEP200	3H137	Summet Training / Yaz Stajı	(0,0,0) 0	5	AC	-

Second Year Spring Semester (18/71 Credits, 30/125 ECTS) İkinci Yıl Bahar Dönemi (18/71 Kredi, 30/125 AKTS)						
Course Code / Ders Kodu	Ref. Code / Ref. Kodu	Course Name / Ders Adı	Credit / Kredi (Lec/Lab/Tut)	ECTS / AKTS	Category / Kategori	Prerequisite(s) / Önkoşul
BTEP202	3H141	System Analysis and Design / Sistem Analizi ve Tasarımı	(2,2,0) 3	5	AC	-
BTEP204	3H142	Internet Programming- II / İnternet Programcılığı - II	(2,2,0) 3	5	AC	BTEP203
BTEP206	3H143	Computer Graphics and Animations / Bilgisayar Grafiği ve Animasyonlar	(2,2,0) 3	5	AC	-
BTEP208	3H144	Computer Networks / Bilgisayar Ağ Sistemleri	(2,2,0) 3	5	AC	-
AS03	3H145	Area Elective - III / Alan Seçmeli - III	(3,0,0) 3	5	AE	-
AS04	3H146	Area Elective - IV/ Alan Seçmeli - IV	(3,0,0) 3	5	AE	-

Appendix: Programme Learning Outcomes and Curriculum

Third Year Fall Semester (15/16 Credits, 35/60 ECTS) Üçüncü Yıl Güz Dönemi (15/16 Kredi, 35/60 AKTS)						
Course Code / Ders Kodu	Ref. Code / Ref. Kodu	Course Name / Ders Adı	Credit / Kredi (Lec/Lab/Tut)	ECTS / AKTS	Category / Kategori	Prerequisite(s) / Önkoşul
BTEP301	3G151	E-Commerce Application / E-Ticaret Uygulamaları	(2,2,0) 3	7	AC	-
BTEP303	3G152	Information Systems Security / Bilişim Güvenliği	(2,2,0) 3	7	AC	-
BTEP305	3G153	Internet Applications Using Database / Veritabanı Destekli İnternet Uygulamaları	(2,2,0) 3	7	AC	-
BTEP307	3G154	Advanced Desktop Applications / Gelişmiş Masaüstü Yayıncılık Uygulamaları	(2,2,0) 3	7	AC	-
BTEP309	3G155	Advanced Animation Techniques / Gelişmiş ANimasyon Teknikleri	(2,2,0) 3	7	AC	-

Third Year Spring Semester (1/16 Credit, 25/60 ECTS) Üçüncü Yıl Bahar Dönemi (1/16 Kredi, 25/60 AKTS)						
Course Code / Ders Kodu	Ref. Code / Ref. Kodu	Course Name / Ders Adı	Credit / Kredi (Lec/Lab/Tut)	ECTS / AKTS	Category / Kategori	Prerequisite(s) / Önkoşul
BTEP300	3G161	Semester Training / Dönem Stajı (80 working days)	(0,0,0) 0	16	AC	-
BTEP302	3G162	Graduation Project / Mezuniyet Projesi	(0,0,0) 1	9	AC	-

AC = Area Course AE = Area Elective UC = University Core

Appendix

D1	Objectives – Module Matrix for each programme
D2	Up-to-date list of Area Elective modules
D3	Module / Course Descriptions
D4	Sample Diploma Supplement