Doc. 300.1.2

# Higher Education Institution's Response

Date: Date.

• Higher Education Institution:

Alexander College

- Town: Larnaca
- Programme of study Name (Duration, ECTS, Cycle)

In Greek:

Πληροφορική με Ανάπτυξη Ηλεκτρονικών Παιχνιδιών, Τεχνητή Νοημοσύνη και Ανάπτυξη Προγραμμάτων (4 Έτη, 240 ECTS)

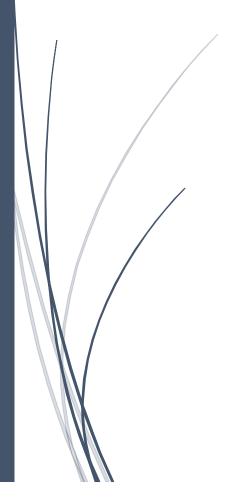
#### In English:

Computer Science with Gaming Development, Artificial Intelligence and Software Development (4 Years, 240 ECTS)

- Language(s) of instruction: Greek
- Programme's status: Choose Status
- Concentrations (if any):
   In the Greek language:
  - Ανάπτυξη Ηλεκτρονικών Παιχνιδιών
  - Τεχνητή Νοημοσύνη
  - Ανάπτυξη Προγραμμάτων

#### In the English language:

- Gaming Development
- Artificial Intelligence





• Software Development

The present document has been prepared within the framework of the authority and competencies of the Cyprus Agency of Quality Assurance and Accreditation in Higher Education, according to the provisions of the "Quality Assurance and Accreditation of Higher Education and the Establishment and Operation of an Agency on Related Matters Laws" of 2015 to 2021 [L.136(I)/2015 – L.132(I)/2021].

#### A. Guidelines on content and structure of the report

- The Higher Education Institution (HEI) based on the External Evaluation Committee's (EEC's) evaluation report (Doc.300.1.1 or 300.1.1/1 or 300.1.1/2 or 300.1.1/3 or 300.1.1/4) must justify whether actions have been taken in improving the quality of the programme of study in each assessment area. The answers' documentation should be brief and accurate and supported by the relevant documentation. Referral to annexes should be made only when necessary.
- In particular, under each assessment area and by using the 2<sup>nd</sup> column of each table, the HEI must respond on the following:
  - the areas of improvement and recommendations of the EEC
  - the conclusions and final remarks noted by the EEC
- The institution should respond to the EEC comments, in the designated area nexteach comment.
   The comments of the EEC should be copied from the EEC report <u>without any interference</u> in the content.
- In case of annexes, those should be attached and sent on separate document(s). Each document should be in \*.pdf format and named as annex1, annex2, etc.

#### Response by Alexander College

Alexander College and the Programme Team would like to extend its gratitude to the Chair and Members of the External Evaluation Committee for their professional visit, constructive approach and feedback.

Alexander College (AC) and the Programme Team (PT) have taken action and have implemented all EEC recommendations. These can be summarised as per the following:

- Ensured adequate expertise in software engineering by recruiting on a F/T basis an experienced new member of the faculty who has led the re-design of the curriculum of the software development pathway.
- Restructured as per the EEC recommendations the AI partway. AC has further recruited on a F/T basis, one more teaching-research pathway Lecturer.
- We have outlined clear roles and responsibilities for faculty, industry stakeholders, students, alumni in the Q.A process and clarified the mechanism of student feedback.
- We have communicated a strategy on the choice of technologies and tools and adopted multiple target platforms
- We have refined the content of Modules in light of ACM curricula recommendations and guidelines and removed overlapps
- We have updated our graduate outcome tracking capabilities and clarified our mobility and partnerships strategy
- We have expanded the application of active learning methodologies and project led learning
- We showcase an expanded list of academic and professional partner organisations and have enhanced hands on and research skills approach into the curriculum, introducing more industry led projects. Enhanced teaching research synergies
- We have established more transparency in grading

#### 1. Study programme and study programme's design and development

(ESG 1.1, 1.2, 1.7, 1.8, 1.9)

Areas of improvement and recommendations by EEC	Actions Taken by the Institution	For Official Use ONLY
1. To enhance policy for quality assurance, the institution should develop a comprehensive quality assurance framework that outlines clear roles and responsibilities for faculty, industry stakeholders, and students. Establishing a formalized, systematic approach to curriculum evaluation, with structured input from industry and alumni, will improve relevance and responsiveness to market needs.  Furthermore, a more transparent mechanism for tracking and utilizing student feedback should be implemented to ensure continuous program improvement.	To enhance the existing formalised internal quality assurance framework (which can be reviewed at https://alexander.ac.cy/the-quality-assurance-system-at-the-alexander-college/) and in alignment with the EEC recommendation, the Academic Council in collaboration with the Internal Quality Assurance Committee have outlined in a decision-document, clear roles and responsibilities of those involved in the internal process of quality assurance, in ANNEX I. This includes the roles of the faculty, external/industry stakeholders, students and alumni at an Institutional level, Programme level and Module level. It should be recalled that Alexander College's overall organisational structure does not involve Schools or Departments (this is based on the Law) but Programmes and or clusters of programmes.  To ensure Programme and Institution continuous improvement in a student centred environment, student feedback on important aspects is collected twice a year. This is done via the completion of a student survey, the outcomes of which are processed by the Alexander College Academic Council, Student Affairs, Professional Services and Programme Team. The Programme Director and Leadership Team, based also, on feedback (and discussions with student representatives in the format demonstrated in the first action described in the box), may consider areas of improvement, changes into the Programme in order to enhance student experience. The data tracking system is evidenced in ANNEX II. Student Data is anonymous and is collected through google forms and/or face to. face to have a more comprehensive process that captures student experience.	Choose level of compliance:
2. Given the program's orientation towards the industry, the programme should define a clear strategy on the choice of technologies (IDE, framework) and programming tools to be introduced to the students throughout the programme. This vision should be formalized and made accessible to	<ul> <li>The PT has accepted the recommendations of the EEC and has taken the following actions:</li> <li>We have established a clear and structured strategy for the integration of technologies, including IDE framework, and programming tools, which are progressively introduced to students throughout the duration of the programme. This strategy is aligned with each year's academic level and the industry-oriented focus of the programme's specializations. It supports foundational learning in the early years and</li> </ul>	Choose level of compliance:

students. The content section of the Course Descriptions should clearly indicate which principles of computer science are covered, and which concrete technologies are used in the course to convey these to the students. It is suggested to more explicitly consider multiple target platforms for game development, including VR, XR and mobile phones.

evolves toward advanced, real-world applications in later stages.

The strategy is reflected in the ACM mapping (**ANNEX III**), which aligns each module with specific computer science principles and the technologies used to deliver them.

 To further support cross-platform game development, the Game Development pathway has been expanded to include VR, XR, and mobile deployment, incorporating tools such as Unity, Photon Unity Networking, and relevant publishing pipelines.

A detailed summary of all programming tools, IDEs, and technologies introduced throughout the programme is provided below:

#### **Technologies & Tools:**

- Programming Languages: Java, C++, C#, Python, HTML, CSS, JavaScript, SQL
- IDE: Visual Studio for C++ and C#, Visual Studio Code for Java and Web development, Jupyter Notebooks, PyCharm for Python, SQL Server Management Studio (SSMS), Azure studio
- Version Control and Collaboration: Git, GitHub

#### **Game Development tools:**

- Unity for game development
- Autodesk Maya, Blender for model creation
- Adobe Photoshop for image editing
- Frameworks:
  - o ASP.NET
- Multi-platform development:
  - O VR and XR environments
  - Mobile app publishing (Google Play Store)
  - Cloud-based game services and multiplayer integration (Photon Unity Networking)

#### **Artificial Intelligence tools:**

- Anaconda
- Jupyter Notebooks
- PyCharm
- AWS SageMaker, Google Cloud AI, Microsoft Azure AI for deploying AI models.
- Frameworks:
  - TensorFlow or PyTorch for deep learning and neural networks.
  - Keras for building deep learning models.
- Libraries:
  - NLTK and spaCy for NLP.

	<ul> <li>NumPy, Pandas, Matplotlib for data manipulation and visualization.</li> </ul>	
	·	
	Software Development tools:	
	<ul><li>Visual Studio</li><li>Android Studio</li></ul>	
	<ul> <li>Alidroid Studio</li> <li>Agile Tools: Jira, Trello for task management and</li> </ul>	
	planning.	
	<ul> <li>Azure DevOps for Continuous Integration (CI)</li> </ul>	
	• Frameworks:	
	o ASP.NET Core for building web	
	applications and APIs.  O NUnit and MSTest for .NET unit testing.	
	o JUnit and Selenium	
	o Google Test (GTest)	
3. The progression and	In aligning the Programme with the recommendation, we	Choose level of
interdependence of the	have reviewed and revised all relevant course syllabuses,	compliance:
different course	removed overlapps and have clarified the focus of each	
modules is unclear.	module. The content has been streamlined to ensure	
Overlap of topics	better student progression across the years of study.	
between course modules should be	The updated course content is included in <b>ANNEX IV</b> and	
removed, or explicit	ANNEX V. Changes into the following Modules are	
distinctions should be	highlighted:	
made regarding the		
aspects that are	<ul> <li>CS201 – Data Structures and Algorithms (ANNEX IV)</li> </ul>	
covered. (e.g. on graph structures and	<ul> <li>CS206 – Algorithms and Complexity (ANNEX IV)</li> </ul>	
algorithms).	• CSM103 – Calculus I (ANNEX V)	
	<ul> <li>CSM104 – Discrete Mathematics (ANNEX V)</li> </ul>	
	CSM204 – Probability and Statistics (ANNEX V)  CSM205 – Live and Alexhau (ANNEX V)	
	<ul> <li>CSM205 – Linear Algebra (ANNEX V)</li> </ul>	
4. The contents of the	The PT in acceptance of this recommendation has	Choose level of
programs could be	thoroughly reviewed and aligned the courses with the	compliance:
explicitly situated against the ACM	latest ACM Computer Science Curricula recommendations and guidelines. A full mapping of the program's modules	
curricula	to ACM knowledge areas has been completed and is	
recommendations and	available in <b>ANNEX III</b> .	
guidelines, allowing for a		
better highlight of the	By aligning with these key areas, we ensure coherence	
strategic choices on the programme's profile	with industry standards and development of well-	
made by the institution.	rounded graduates with a strong foundation in computer science concepts and skills.	
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	The changes of the course syllabuses are shown on <b>ANNEX IV</b> and <b>ANNEX V.</b> The following courses were	
	revised	
	• CS106 - Programming 2 (ANNEX IV)	
	C3100 - FTOgramming 2 (ANNEX IV)	

		<ul> <li>CS201 - Data Structures and Algorithms (ANNEX IV)</li> <li>CS206 - Algorithms and Complexity (ANNEX IV)</li> <li>CS209 - Theory of Computation (ANNEX IV)</li> <li>CS304 - Parallel Systems (ANNEX IV)</li> <li>CSM103 - Calculus I (ANNEX V)</li> <li>CSM104 - Discrete Mathematics (ANNEX V)</li> <li>CSM204 - Probability and Statistics (ANNEX V)</li> <li>CSM205 - Linear Algebra (ANNEX V)</li> </ul>	
5.	Regarding public information, Alexander College should enhance graduate outcome reporting, providing comprehensive employment data and alumni success stories. More transparent disclosure of program performance indicators will improve visibility and attract prospective students.	The Programme team accepts the EEC recommendation to enhance transparency of programme indicators, most of them presented during the external evaluation visit. This is a relatively very young programme, operating only for five years. The programme and the Institution's services, have succeeded in assisting its graduates to find a, closely related to the skills acquired during their studies, full time job. We commit to avail consistent to the recommendation public information on key performance indicators upon accreditation. The students and graduates of the Programme are happy and proud of their studies as was also demonstrated during their meeting with the EEC. We hereby provide a link with brief statements by the students and graduates regarding the Programme to be also used in the post accreditation future as testimonials <a href="https://alexander.ac.cy/testimonials-computer-science/">https://alexander.ac.cy/testimonials-computer-science/</a> . This will soon be uploaded on the Programme's page.  We have updated our graduate outcome tracking capabilities within our SAP-based management system, allowing the Student Affairs and Career Development Units, faculty and our Organisation services, to systematically gather and report information on our graduates' employment status, job satisfaction, support, and provide a basis for better communication. This structured data collection enables us and the community to acquire a more complete picture of student careers after graduation. (See ANNEX XVI)	Choose level of compliance:
6.	For information management, the institution should implement a structured graduate tracking system, incorporating alumni surveys and employer feedback mechanisms. A centralized data analytics platform should be established to	Tracking provides "information on students and/or graduates, with regard to their learning progress, skills acquired, perceptions, jobs, between at least two points in time, through aggregated or individual-level data, collected mainly via administrative processes and surveys" Our existing SAP-based management system already tracks key academic performance indicators, including student progression, retention, dropout rates, and module-level results. These data points are reviewed regularly by the Programme Leadership Team and support internal quality assurance and academic planning.	Choose level of compliance:

monitor key performance indicators, such as student progression, dropout rates, and postgraduation employment trends. In response to the EEC's recommendation, we have expanded the system's functionality by adding graduate tracking fields, enabling our Institution's Committees and administrative structures to systematically record and analyse post-graduation data such as (See **ANNEX XVI**):

- Employment status
- Industry sector and job title
- Further academic studies

Feedback from employers in a given sector can be discussed in formal meetings of the Programme Committee (or Board) (as per **ANNEX I**). These additions complement our internal analytics framework, allowing us to monitor student outcomes beyond graduation. We are also in the process of launching structured alumni surveys and employer feedback forms to further enrich our data and better align programme development with market needs.

### 2. Student – centred learning, teaching and assessment (ESG 1.3)

Areas of improvement and recommendations by EEC	Actions Taken by the Institution	For Official Use ONLY
7. To further enhance student-centered learning, the institution should implement a broader range of active learning methodologies, such as flipped classrooms, industry-led hackathons, and collaborative interdisciplinary projects.	AC and the Programme Team accepted and implemented the EEC recommendation. We have incorporated a wider range of active learning approaches, in line with this recommendation. Specifically, flipped classroom techniques have been introduced in several Year 3 and Year 4 modules, where appropriate, enabling students to engage with core topics ahead of class and present, discuss with peers during direct contact time.  Such us in the following modules (ANNEX IV, ANNEX VII, ANNEX VIII, ANNEX IX):  CS304 - Parallel Systems (ANNEX IV)  CS305 - Computer System Security (ANNEX IV)  CS306 - Human-Computer Interaction (ANNEX IV)  CSG412 - Al in Games (ANNEX VII)  CSG413 - Game Services Programming (ANNEX VIII)  CSS421 - Software Design and Architecture (ANNEX VIII)  CSS423 - Software Verification & Quality Assurance (ANNEX VIIII)  CSA433 - Time Series Processing for Al (ANNEX IX)  CSA433 - Time Series Processing for Al (ANNEX IX)  The change is shown in the teaching methodology of each syllabus. Below is an example from a Year 4 module:  "Delivered through a blend of lectures, seminars, and labbased activities, this course emphasizes project-based learning. Students work on capstone projects or real-world simulations, supported by peer reviews and industry-inspired challenges. Flipped classroom techniques and interdisciplinary group work are incorporated where applicable. Students access course materials and guidance via Moodle."  Additionally, we agreed to introduce industry-led hackathons, collaborative projects, and game jams in partnership with stakeholders such as the Cyprus Computer Society (CCS), the Cyprus Marine and Maritime Institute (CMMI), and lanus Technologies. These activities aim to expose students to real-world challenges and foster creativity, teamwork, and innovation in dynamic, fast-paced environments. Alexander College and the Programme has participated in an industry led hackathon on digital skills and has won (please see at https://alexander.ac.cy/alexander-college-team-wins-1st-place/)	Choose level of compliance:

For practical training, while lab work is wellintegrated into the curriculum, the connection between practical experiences and industry partnerships should be strengthened. The institution should consider developing formal agreements with companies to facilitate structured internships (e.g., internship in industry could lead to earning of ECTS credits) and industry-led capstone projects. Additionally, bachelor thesis project proposals could be more explicitly linked to industry to enhance realworld relevance and employability prospects.

#### MoUS/INTERNSHIPS

Alexander College and the Programme team, in the spirit of the EEC suggestion has developed structured partnerships with the following Organisations:

**Center for Social Innovation** - CSI, (<a href="https://csicy.com/">https://csicy.com/</a>) a leading disruptive organisation, offering the opportunity to our students for hands on practice and training, via its experts ecosystem, working in EU funded, discipline related, projects

Cyprus Marine and Maritime Institute - CMMI see info about the partnership <a href="https://alexander.ac.cy/cmmi-and-alexander-college-renew-their-partnership/">https://alexander.ac.cy/cmmi-and-alexander-college-renew-their-partnership/</a>), a Centre of Excellence in Marine and Maritime Research, Innovation, and Technology Development. CMMI is leading through research hubs such as Technology and Engineering Centre, Maritime Digitalisation Centre, Marine Robotics Innovation Centre

**Cyprus Computer Society** - CCS (Κυπριακό Σύνδεσμο Πληροφορικής see info about the partnershiphttps://alexander.ac.cy/signing-of-a-memorandum-of-understanding-with-the-cyprus-computer-society-ccs/ ) the most established in Cyprus professional, scientific and independent non-profit organization, with the aim of developing, upgrading and promoting the IT sector in Cyprus.

IANUS Technologies (<a href="https://ianus-technologies.com/">https://ianus-technologies.com/</a> see info about the partnership https://alexander.ac.cy/new-partnership-announcement/

) offers job and training opportunities to the students and graduates of the Programme as part of the MoU agreement. It's mission is research and development of innovative technology

**CCCU (please see https://alexander.ac.cy/our-collaborations/.)** Canterbury Christ Church University is our leading international University partner offering support and guidance.

Metropolia University of Applied Sciences (see info about the partnership https://alexander.ac.cy/alexander-college-and-metropolia-university-of-applied-sciences-start-strategic-partnership-with-memorandum-of-understanding/) is an Institutional and Programme stakeholder of Alexander College, supporting the development of the programme.

Further to the above stated, AC and the Programme Team has taken the following actions:

- Offer optional Summer Internships with the Industry and specifically with the Programme Stakeholders. Training will not lead to credits but to real- world, industry experience. It will lead to a certification of the Internship by the Industry Stakeholder and Alexander College. Please see ANNEX XIV for more information
- We have revised the Final Project Description to offer, in partnership with the industry and our external stakeholders,

the opportunity for industry led capstone projects. Please see revised Module Description in **ANNEX IV**.

#### **FINAL PROJECT**

Both CS401 (Final Project I) and CS402 (Final Project II) have been revised to provide students with the option of undertaking industry-led projects in collaboration with external organizations. These changes allow students to apply their technical and analytical skills to real-world challenges, engage with professional stakeholders, and develop practical, workplace-relevant experience alongside academic supervision. This structure ensures stronger alignment with industry needs and enhances the employability focus of the programme. **See ANNEX IV.** 

9. Regarding student assessment, the current approach relies predominantly on written examinations. Expanding the assessment methods to include more project-based evaluations, peer reviews, and oral presentations would provide a more comprehensive assessment of student competencies and foster the development of

soft skills.

In expanding the assessment methods in the Programme as per the recommendation, we have reviewed and refined the assessment strategies across the programme to ensure they are aligned with the intended learning outcomes and cater to diverse learning styles.

A variety of assessment methods are used across the programme, including written exams, individual assignments, presentations, written reports, peer review, lab exercises, and group projects.

We have updated the assessment sections of several modules. We minimized the percentage of written examination and added more project-based evaluations, peer reviews and oral presentations to provide a more comprehensive assessment of student competencies and foster the development of soft skills. These updates can be viewed in **ANNEX IV, ANNEX VII, ANNEX VIII, ANNEX IX** and apply to the following modules:

- CS101 Introduction to Computer Science (ANNEX IV)
- CS102 Programming 1 (ANNEX IV)
- CS106 Programming 2 (ANNEX IV)
- CS108 Web Technology (ANNEX IV)
- CS201 Data Structures and Algorithms (ANNEX IV)
- CS202 Databases (ANNEX IV)
- CS203 Web Programming (ANNEX IV)
- CS206 Algorithms and Complexity (ANNEX IV)
- CS208 Game Design (ANNEX IV)
- CS209 Theory of Computation (ANNEX IV)
- CS302 Communications and Networks (ANNEX IV)
- CS306 Human-Computer Interaction (ANNEX IV)
- CSA433 Time Series Programming for AI (ANNEX IX)
- CSA334 Natural Language Processing (ANNEX IX)
- CSG412 Artificial Intelligence in Computer Games (ANNEX VII)
- CSG413 Game Services Programming (ANNEX VII)

For example CSA432 - Deep Learning

Previous assessment	New assessment
Final Exam: 50%	Final Exam: 30%
Mid-Term Exam: 20%	Individual Project: 70%
Assignments: 30%	

Additionally **ANNEX XI** outlines examples of topics of student projects offered by the Programme. This document provides a map of Projects that guide the Programme curriculum. Projects are based on collaborations with leading industry stakeholders; EU projects in which Alexander College together with other partners has submitted an application and projects related to the research interests and output of the teaching staff. Students will work on these projects either in a small group or individually, learn, report, present and their competences and skills assessed. In some of the Projects the students will be mentored and guided by our partners in the industry

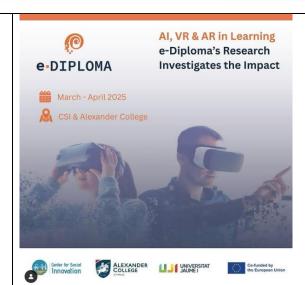
- 10. Furthermore, a clearer link between learning outcomes and assessment criteria should be established to ensure transparency in grading and student expectations.
- The PT has accepted this recommendation
- For each Module where learning outcomes have been adapted, this is indicated in ANNEX IV, ANNEX VII, ANNEX VIII, ANNEX IX as per the following summary:
- Find below in **ANNEX IV**:
  - o CS101 Introduction to Computer Science
  - o CS102 Programming 1
  - CS106 Programming 2
  - CS201 DataStructures and Algorithms
  - o CS202 Databases
  - o CS203 Web Programming
  - O CS208 Game Design
  - o CS209 Theory of Computation
  - CS401 Research Methodology / Final Project 1
  - o CS402 Final Project 2
- Find below in ANNEX VII:
  - o CSG412 Al in Games
  - CSG413 Game Services Programming
- Find below in ANNEX VIII:
  - O CSS321 Computer Architecture
  - CSS322 Software Development
  - CSS421 Software Design and Architecture
  - o CSS422 Software Engineering
  - CSS423 Software Verification & Quality Assurance
  - o CSS424 Software Project Management
- Find below in ANNEX IX:
  - CSA331 Fundamentals of Machine Learning

	o CSA431 - Computer Vision	
	o CSA432 - Deep Learning	
	<ul> <li>CSA433 - Time Series Processing for AI</li> </ul>	
	<ul> <li>CSA434 - Natural Language Processing (NLP)</li> </ul>	
	<ul> <li>Assessment Criteria can be found in ANNEX XV.</li> </ul>	
11. The ethical	We understand that the ethical consideration and consequences	Choose level of
	section is a very crucial and important part of the final year's project.	
consequences	We have revised this section to provide a more comprehensive	compliance:
	·	
considerations	analysis by incorporating relevant ethical frameworks, exploring	
section in the	potential risks and benefits and addressing the responsibility of	
thesis should be	students in ensuring ethical practices throughout the project.	
strengthened, as	In <b>ANNEX X</b> you can see the feasibility report template that includes	
in the provided	sections for ethical and legal issues and an ethical assessment form	
sample, that	_	
section was	that the supervisor approves.	
rather brief.		

## 3. Teaching staff (ESG 1.5)

Areas of improvement and recommendations by EEC	Actions Taken by the Institution	For Official Use ONLY
12. Hire at least one PhD-qualified faculty member in software engineering.	In response to the recommendation, we have hired a full time Professor, a PhD-qualified academic with expertise in Software Engineering. He holds a PhD in Computer Engineering from the University of Ioannina, Greece with specialization in Denotational Mathematics, and two master's degrees in Computer and Electrical Engineering from Manhattan College, USA. He has extensive teaching experience at institutions such as City College of New York, City College Thessaloniki (University of York), and the American University of Athens. His research focuses on intelligent healthcare systems, denotational models, and software quality in distributed environments, and includes numerous international publications and conference presentations. The Software Development Pathway (and related Modules) has been revised under the leadership of the new recruitment.  In addition to the previously stated, we have also hired a Full Time lecturer with a PhD in Artificial Intelligence applications in education from the Cyprus University of Technology. She is Research Associate at CYENS (Centre of Excellence), Grand Writer for EU Funded and Cyprus Research Foundation projects. Her academic background includes a strong foundation in mathematics and AI, with research focused on smart learning environments, student behavior recognition, and AI-driven educational systems. She has been assigned to teach two core modules in the Artificial Intelligence pathway as well as two modules in the Mathematics stream, drawing on her expertise in both domains.  This strategic alignment with the EEC recommendations strengthens teaching and research quality within the programme Team. These additions support the department's broader commitment to specialisations and the integration of active research with teaching and ensuring faculty members are engaged in both curriculum delivery and high-level academic scholarship.	Choose level of compliance:

	AC has signed an MoU agreement with both new members of the staff which can be viewed together with their CVs in CYQAA template in <b>ANNEX XIII</b> .	
	Due to the staff additions and the restructure, <b>ANNEX VI</b> provides an updated list of all academic staff along with the modules they deliver.	
relationship needs to be strengthened, with clearer integration of faculty research activities into student projects and coursework. Establishing formal research collaborations with universities, industry and leveraging existing Memoranda of Understanding can ensure that students benefit from exposure to real-world research challenges.	In compliance with the recommendation, AC and the PT have taken the following actions:  1. To enhance teaching-research synergies, Incorporation of teaching-research faculty activities, outputs, projects and research interests and expertise into the Programme curriculum (Please see ANNEX XI). This document provides a map of Projects based on collaborations with leading industry stakeholders; EU projects in which Alexander College together with other partners has submitted an application and projects related to the research interests and output of the teaching staff.  2. The most recent examples of Institutional and Programme exploitation of interinstitutional (University Agreements) partnerships are the following: participation of AC Lecturers in the 2nd International Scientific Conference "Multidimensionality of Cybersecurity – Hate Speech in the Cyberworld" organised by partner Uni. UTH, Poland where an interdisciplinary group of AC lecturers presented and the Conference Proceedings were attended online by our students (https://alexander.ac.cy/significant-research-findings-of-online-hate-speech-in-cyprus-by-alexander-college-academics-at-the-uth-university-2nd-international-conference-on-cybersecurity-hate-speech-in-the-cyberworld/  ). Moreover, Alexander College is participating in the EU-Horizon e-Diploma Project (https://alexander.ac.cy/e-diploma-electronic-didactic-and-innovative-platform-for-learning-based-on-multimedia-assets/ as a national partner, in collaboration with the Center for Social Innovation (CSI) and international academic institutions . Structured interaction with the project leaders allowed for staff and students engagement into the project.	Choose level of compliance:



- 3. Thirdly, AC as part of our research agreement with the University of Siedlce, an International Week and Conference whereas AC is a coorganiser, is hosted in which our lecturers participate with workshops and conference presentations and students attend with online participation <a href="https://internationalweek.uph.edu.pl/">https://internationalweek.uph.edu.pl/</a>
- 4. The expansion of our research agreements is not a static task but rather ongoing. On top of existing MoUs described in response No 8, AC and the PT are processing an interinstitutional research agreement with The Jaume I University and its affiliate Institute of New Imaging Technologies INIT.

See Computer Science program activities in ANNEX XII

14. More structured support should be provided for faculty members pursuing PhDs, particularly in software engineering and AI, to ensure long-term sustainability of the faculty's expertise.

The strategic planning for the development of the Programme and for Faculty Development https://alexander.ac.cy/faculty-developmentprograms-fdp/) align with the EEC recommendation to actively support staff to develop its expertise academically and professionally. In this spirit, two of the members of our Computer Science staff will be supported in terms of workload and finance to pursue a PhD in the discipline (please also seehttps://alexander.ac.cy/academic-careerdevelopment-at-alexander-college/). Together with the evidenced new additions of staff into the Programme and growing research opportunities as an outcome of the expansion of our collaborations and networking, create an improved environment, conducive to academic development.

#### Student admission, progression, recognition and certification

(ESG 1.4)

Areas of improvement and recommendations by EEC	Actions Taken by the Institution	For Official Use ONLY
15. A structured alumni tracking system should be implemented to assess graduate employment trends and improve curriculum alignment with industry needs.	Please see responses in recommendations 5 and 6 which clarify the enhancement of our tracking system to better facilitate alumni/graduate and employment outcomes. Communication with alumni consists of a dedicated section which involves job updates (please see <a href="https://alexander.ac.cy/alumni/">https://alexander.ac.cy/alumni/</a> )	Choose level of compliance:
16. To increase international mobility opportunities, the institution should explore offering select courses in English to attract a broader range of students.	(This recommendation should be seen together with recommendation 19 as both refer to international mobility: "Further efforts should be made to expand outgoing Erasmus mobility of students, ensuring that they gain international exposure and broader educational experiences." )	Choose level of compliance:
	To address the recommendations, we provide the following info for initiatives and decisions.	
	Alexander College shares the EEC vision for students to gain the benefits of international, mainly Erasmus+, experiences. Though the Programme is offered in Greek language, this does not preclude international partnerships for mobility and exchanges of faculty, staff and students. Faculty, administration and students¹ of Alexander College may and do participate in mobility exchanges.	
	To that end we report to the EEC that we have concluded two new Inter-institutional Agreements with (1) Helena Chodkowska University of Technology and Economics and (2) Metropolia University of Applied Sciences including in the study area of IT (Metropolia is also an Alexander College and Programme external stakeholder). These developments expand our international mobility agreements in the area of IT (The EEC would like to see our Inter Institutional Agreements) <sup>2</sup>	

<sup>&</sup>lt;sup>1</sup> Please remember, as per admission requirements, section "Evidence of Knowledge of the English Language", for a student to be eligible for admission into the Programme, must demonstrate evidence of B2 CEFR level, therefore students of the Programme are eligible to apply for student exchange under Erasmus+ in Comp Sc Dpt of partner Institutes.

<sup>&</sup>lt;sup>2</sup> Inter-institutional Agreements which include the study area of IT are now University of Hradec Kralove; Estonian Entrepreneurship University of Applied Sciences; Lithuania Business University of Applied Sciences; Siedlce University of Natural Sciences and Humanities; Radom Academy of Economics; University of Castilla – La Mancha (UCLM); Helena Chodkowska University of Technology and Economics; Metropolia University of Applied Sciences; CCCU

Recruiting international, non Greek speaking students, is indeed a natural outcome of our strategic decision to continue to offer the Programme in Greek Language. Despite this, the internationalisation aspect of the programme in terms of outgoing mobilities and collaborative projects with departments of other international Universities is, as evidenced in previous sections of our response, ongoing. AC will, in the near future, re-evaluate with its stakeholders its strategy of offering the program only in Greek.

17. The institution should develop and publish formal regulations on how competences obtained at other institutions are accepted or rejected. Priority could be given to map course content from institutions from which incoming students have previously been received, such as the University of Cyprus, to create a more structured and reciprocal recognition system.

Transfers from other Institutions are regulated by the Internal Regulation of Alexander College on the basis of state decisions and regulations (Ministry of Education). Please see the following:

https://alexander.ac.cy/our-policies/#transferstudents

#### Transfer of students from one programme to another

In the case where a student wishes to transfer to another course, this must be approved in writing by the Academic Committee at the request of the student and once his qualifications are examined and assessed ensuring they meet the requirements of the new course.

Failure to attend the courses or mere mention to the professor is not a formal application for course change. The change of course can be made after the end of the academic semester or within four weeks from the start of the semester.

This is done with the guidance of the course's Head lecturer. In the case of course change, the credits are transferred only if the courses are related to each other.

#### Transfer of students from one Branch to another

If a student wishes to transfer to one branch of the College or from the branch to the parent institution, this must be approved by the Academic Committee at the request of the student and after the examination and evaluation of his qualifications.

#### Transfer students from other institutions

Students studying at another Higher Education Institute who wish to transfer to a similar or the same branch at Alexander College must present to the Admissions Department the following documents:

1. A transfer request

- 2. Official and complete academic transcript (academic transcript)
- 3. Official and complete description of the subjects taught at the institution who attended
- 4. If foreign students the completion of the transfer is finalised after the approval by the Migration Officer

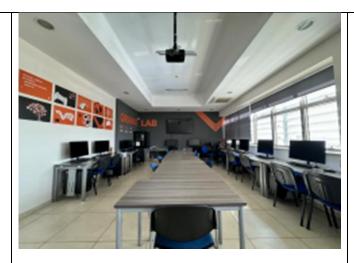
Credits can be transferred to Alexander College only if they have a grade of at least "Pass". The student that wants to transfer must cover at least one year of study in two-year courses and two years of study in three or four-year courses. In special cases and after the decision of the Academic Council an applicant can be admitted to the third year of study.

If the language of the institution where the student was studying was not in English, then the student will have to present evidence of knowledge of English. The college also has the possibility to request the student to attend an exam in order to verify the student's ability to follow courses in the course to which he is asking to transfer.

Each case of a transfer from other institutions in the school deserves fair treatment: depending on the institution, grades, and portfolio presented to the Academic Council.

### **4.** Learning resources and student support (ESG 1.6)

For Official Areas of improvement and Actions Taken by the Institution recommendations by EEC **Use ONLY** Choose level of 18. To further improve learning AC and the PT is dedicated to student support in a resources and student student centred environment. Sharing the same compliance: support, the institution approach with the EEC and taking into consideration our capabilities we report on the following should expand dedicated spaces for collaborative Two Study Rooms near the Library projects and research activities, ensuring that The college library is equipped with computers students can engage more in available for private study. Also, students can access group work. the internet through the free wireless internet connection present all over the college premises. Also, small conference rooms are accessible to students for group meetings and private study. Three dedicated Labs promote active learning and group work and offer the space and infrastructure for conducting research. Recently, an international project under Horizon funding was conducted at Alexander College, verifying the high level of our resources (please see https://alexander.ac.cy/ediploma-electronic-didactic-and-innovative-platformfor-learning-based-on-multimedia-assets/) Alexander College is proud of the learning resources it provides to its community, including free access to academic and research resources, through the Cyprus Libraries Consortium 106 - Yellow Lab



108 - Orange Lab



103 - Ruby Lab

19. Further efforts should be made to expand outgoing Erasmus mobility of students, ensuring that they gain international exposure and broader educational experiences.

Please see response in Recommendation 16 including footnote. The process of concluding inter institutional agreements has expanded to eight Institutions and it is ongoing.

#### B. Conclusions and final remarks

Conclusions and final remarks by EEC	Actions Taken by the Institution	For Official Use ONLY
20. The EEC recommends the conditional accreditation of the AI pathway. However, the proposed curriculum for the AI pathway should be restructured to ensure a solid foundation in mathematical principles, programming frameworks, and machine learning	We thank the EEC for its recommendation. In response to the EEC's recommendation for conditional accreditation and the need to restructure the AI pathway, we have taken comprehensive actions implementing suggested changes to strengthen both the foundation and the industry relevance of the programme.  To address the need for a solid mathematical base in the early semesters, we have revised five key modules: CSM103 Calculus 1, CSM104 Discrete Mathematics, CSM109 Calculus 2, CSM204 Probabilities and Statistics, and CSM205 Linear Algebra. These now include content relevant to AI, and are taught during the first three semesters (A, B, C) to ensure students are equipped early	Choose level of compliance:
essentials in the early semesters. The incorporation of cloud-based machine learning frameworks should be considered to strengthen links with the industry. In the later stages of the curriculum, there should be an indepth focus on application domains. In that regard, the	with the skills needed for more advanced topics. (ANNEX V)  We also updated the structure and content of the AI pathway to ensure a smoother progression from theory to application. In CSA331 - Fundamentals of Machine Learning, students now cover feature engineering, hyperparameter tuning, and explore case studies from industry. In CSA431 - Deep Learning, we've added cloudbased model deployment using AWS SageMaker, Google Cloud AI, and Azure AI. Students also learn about scalability, model monitoring, and performance optimization which are key topics in real-world AI	
in Computer Games and Computer Vision could be expanded with courses on NLP and time series processing. The content of these specifications should primarily be aligned with stakeholder needs.  There is a clear synergy to be exploited between Al and gaming development.	With these changes students now gain hands-on experience using cloud platforms and tools that are widely used in the AI industry, giving them a more direct connection to how machine learning is applied in practice.  Further to EEC recommendations we've added two new modules for the AI pathway:   CSA433 Time Series Processing for AI  CSA434 Natural Language Processing (NLP)  These complement existing modules like Computer Vision and AI in Computer Games, and provide students with more exposure to key areas of AI application. Topics in	

these new modules include Transformer models, sequence-to-sequence learning, and anomaly detection—ensuring alignment with current trends and stakeholder needs. (see **ANNEX IX**)

To make room for these additions, we removed two modules, the Mathematics of Machine Learning and Python for AI Development, as their content overlapped with earlier courses. This helps streamline the pathway and avoid redundancy.

Lastly, we agree with the EEC's point on the potential synergy between AI and Game Development. This is already reflected in the shared content between the two pathways and remains an area we plan to strengthen further.

All relevant course description changes can be found in **ANNEX IX and ANNEX V**.

21. The launching of the Major in Software Development pathway is considered high risk due to the lack of specific competencies in the area among current faculty members. At this stage, the ECC advises against launching this pathway until the institution can ensure adequate expertise in software engineering through faculty recruitment and curriculum development.

In compliance with the EEC recommendations, Alexander College and the Programme Team has recruited (see also in recommendation 12)an experienced Professor to lead and develop the pathway. Following this decision, the Software Development pathway has been effectively restructured to ensure both academic robustness and alignment with current industry practices. The updated curriculum now consists of a well-sequenced progression of specialized modules, designed to build both practical skills and theoretical knowledge across all core areas of software development.

The new structure includes the following modules:

- CSS321 Computer Architecture
   Introduces students to low-level syster
  - Introduces students to low-level system design, CPU architecture, memory hierarchy, and performance optimization. It emphasizes how hardware impacts software efficiency and is essential for understanding system-level programming.
- CSS322 Software Development
   Focuses on advanced object-oriented programming in modern C++, including memory management, generic programming, concurrency, and refactoring. Students apply design patterns

and write scalable, maintainable code using current C++ standards.

- CSS421 Software Design and Architecture
   Covers architectural design principles and structural patterns for developing scalable web and mobile applications. Students learn to model, analyze, and implement software solutions using component-based and service-oriented approaches.
- CSS422 Software Engineering
   Offers a comprehensive overview of the software development lifecycle (SDLC), comparing methodologies like Waterfall and Agile. Topics include requirements analysis, documentation, team collaboration, and project planning.
- CSS423 Software Verification and Quality Assurance

Teaches students how to validate and test software through unit, system, and regression testing. Emphasis is placed on the use of automated testing frameworks, debugging, and software quality metrics.

CSS424 – Software Project Management
 Equips students with the tools and methodologies needed to manage real-world software projects.

 Topics include effort estimation, risk management, scheduling, configuration control, and project monitoring based on PMI and Agile standards.

Each module targets specific industry-relevant competencies including object-oriented programming, systems-level design, software architecture, testing strategies, quality assurance, and project leadership. Students engage with industry-standard tools and technologies such as Google Test, JUnit, Selenium, Git, CI/CD pipelines, and agile project boards.

This structured progression ensures that graduates of the Software Development pathway are not only academically prepared but also ready to contribute effectively in professional software engineering environments.

The course descriptions are shown on **ANNEX VIII**.

### C. Higher Education Institution academic representatives

Name	Position	Signature
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