Digital4Business Joint Master's Degree in Advanced Digital Technologies for Business

Internal Quality Handbook 2024

DIGITAL4Business

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Digital4Business (D4B) Joint Master's Degree in Advanced Digital Technologies for Business Internal Quality Handbook

Introduction

The Joint Professional Master's in Advanced Digital Technologies for Business programme has been developed in accordance with a multi-beneficiary grant agreement with the European Health and Digital Executive Agency (HADEA) within the framework of the Digital Europe Programme, Regulation (EU) 2021/694 of the European Parliament and of the Council of 29 April 2021 establishing the Digital Europe Programme and repealing Decision (EU) 2015/2240, with respect to provision of funding for Project 101084013 - DIGITAL4Business.

The DIGITAL4Business consortium is a partnership of 16 stakeholders led by National College of Ireland, bringing together key industry, technology, and education stakeholders in Europe. Its composition is presented in the following table:

Partners	Acronym
NATIONAL COLLEGE OF IRELAND	NCI
ALMA MATER STUDIORUM – UNIVERSITE DI BOLOGNA	UNIBO
GERMAN UNIVERSITY OF DIGITAL SCIENCE GGMBH	UDS
AKKA ITALIA (former MODIS CONSULTING SRL)	Akkodis
ADECCO FORMAZIONE SRL	ADECCO
LEE HECHT HARRISON DEUTSCHLAND GMBH	LHH
SKILLNET IRELAND COMPANY LIMITED BY GUARANTEE	Skillnet Irl
LINKÖPINGS UNIVERSITET	LIU
TERAWE TECHNOLOGIES LIMITED	Terawe
MATRIX INTERNET APPLICATIONS LIMITED	Matrix
DIGITAL TECHNOLOGY SKILLS LIMITED	DTSL
UNIVERSIDADE NOVA LISBOA	UNL
SCHUMAN ASSOCIATES SCRL	Schuman

Associated Partners	Acronym
Certiport, A business of NCS Pearson Inc	Certiport

DIGITALEUROPE AISBL*	DIGITALEUROPE
UNIVERSITÉ PARIS 8 VINCENNES SAINT-DENIS	UP8

The following partner Higher Education Institutions (HEIs) will be actively participating in the delivery of the programme:

- NATIONAL COLLEGE OF IRELAND [NCI]
- ALMA MATER STUDIORUM - UNIVERSITA DI BOLOGNA [UNIBO]
- LINKÖPINGS UNIVERSITET [LIU]
- UNIVERSIDADE NOVA DE LISBOA [UNL]

These HEIs, in conjunction with the Digital4Business consortium's industry partners, have collaborated and cooperated to jointly develop and design the proposed programme and its curriculum.

Quality assessment procedures in the programme have been agreed by all partners and refer to two different levels: external and internal.

Quality assessment in the programme has been developed according to the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG) and the European Approach for Quality Assurance of Joint Programmes adopted by the Ministers responsible for higher education in the European Higher Education Area in May 2015. The ESG provide guidance for internal and external quality assurance in higher education. The European Approach, which is mainly based on the ESG and on the Qualifications Framework for the European Higher Education Area (QF-EHEA), facilitate integrated approaches to quality assurance of joint programmes that genuinely reflect and mirror their joint character. Digital4Business has taken the standards defined in the European Approach for Quality assurance of Joint Programs and the European Qualifications Framework (EQF) as a basis for its external quality assurance to facilitate an integrated approach to quality assurance.

Definition

- The Digital4Business Master's degree programme adheres to a transnational internal quality assessment system which is described in this handbook. The Internal Quality Handbook of the Joint Master's Degree in Advanced Digital Technologies for Business programme is:
- A permanent roadmap enabling the Quality Enhancement and Curriculum Development taskforce of the degree program, to effectively and efficiently collect data from all identified sources and generate information and proposals for improvement.
- A consistent guideline to develop actions that support the ongoing quality improvement of the degree program. A coherent set of procedures and tools that combine rigor with simplicity, practicality and flexibility / adaptability.
- A joint initiative that demonstrates that the realisation of the Master's programme is being monitored in a collaborative way.
- A system that is compatible with and sensitive to variations in national legislations and administrative processes.

Quality Policy of the Master's Degree

Each of the Digital4Business partner institutions has been committed within the Bologna process to common standards and guidelines in quality assurance, as a well as a common degree structure and credit system. The programme is modularised to enhance flexibility and meet the demands of target learners.

Mobility is an integral part of the Digital4Business teaching-learning process. For students, in the main, this is a virtual mobility due to the fully online programme delivery.

The programme is assessed based on jointly agreed learning outcomes built around the profile (theoretical knowledge and practical skills) required of Advanced Digital Technologies for Business professionals which requires a solid knowledge and understanding of current technological advances and how these technologies may be used for innovative and transformative purposes within business. The content of the modules, their layout and the complementary capacity building and problems solving activities aim to provide the required knowledge and skills in a complex technological landscape and within an international learning framework respecting and taking advantage of the different contextual backgrounds and variety of expertise in the Digital4Business partner institutions.

The programme incorporates a jointly designed and fully integrated academic curriculum. In order to achieve the programme learning outcomes, learners must obtain 60 ECTS. The programme comprises 2 mandatory 10 ECTS modules (i.e., Digital Transformation and Digital Transformation Practicum) and a suite of 10 ECTS and 5 ECTS elective modules from which learners must choose the remaining 40 ECTS. The elective modules cover topics such as:

- Digital Transformation
- Innovation
- Data Governance & Ethics
- Artificial Intelligence and Generative AI
- Data Science
- IoT (Internet of Things)
- Blockchain Technologies
- Cloud Computing
- Cybersecurity
- Risk & Change Management
- Business Programming
- Quantum Computing

The degree programme is integrated within the degree catalogues of each partner institution. The use of ECTS by all partners in Europe and as a reference outside Europe makes it easier to create and document learning pathways, thus allowing better flexibility and comparability.

Entry requirements and admission criteria for the Digital4Business programme are common for all students. They can be found together with the joint application procedure on the Digital4Business website at https://www.digital4business.eu. Additionally, the partnership consortium has adopted common study and examination rules and regulations. The joint aspects of the programme design and delivery also extend through to:

- Jointly developed and shared quality assurance mechanisms: Quality assessment procedures have been agreed by all partners and refer to two different levels, i.e., external and internal.

- Joint governance and joint administrative and financial management: The consortium partnership has an agreed structure for the joint delivery of the programme. This is based on the Cooperation Agreement for the governing and the implementation of the Joint Professional Master's Degree in Advanced Digital Technologies for Business .
- Joint Degree Award: According to the Cooperation Agreement, each student who successfully completes the degree programme as described in the Study and Examination Regulations and who has fulfilled the requirements of the applicable national legislations shall receive a joint Master's degree testified by a joint diploma on behalf of the degree awarding Partner Institutions involved in the provision of the degree programme to that student.

The DIGITAL4Business European Joint Professional Master's Degree in Advanced Digital Technologies for Business consortium aims to design and implement a highly innovative, effective, and sustainable European EQF Level 7 programme in Advanced Digital Technologies for Business. This contributes to the overall objectives of the DIGITAL Europe Programme by fast-tracking a high number of graduates through a dynamic pan-European stakeholder ecosystem. In the latter, HEIs, Research Centres, Employment Services, and Industry work together to design, promote, deliver and improve an innovative Master's programme. It will focus on the practical application of Advanced Digital Technologies for Business within European Business, an entirely market-led academic programme driven and designed to meet the current and future (up)-skill needs of SMEs and Companies.

Digital4Business Master's Governance and Management Structure

The Master's degree programme has the following management structures defined with responsibilities of decision, of evaluation and execution:

i) Master's Board of Directors

The Master's Board of Directors is comprised of Programme Directors that have been selected by each of the Partner Institutions to represent them on all matters concerning the degree programme. The Master's Board is responsible for general management, academic supervision, quality assurance, degree awarding and recognition issues, agreement changes, dispute resolution and student complaints. Additionally, the Master's Board is responsible for the system review, advice on policy developments for the joint degree programme, and to ensure the coherence and consistency of the concept of the programme. The Master's Board meets at least twice each year. Initial minutes of the Master's Board meeting are compiled by the Secretariat and distributed to all members of the Master's Board within fifteen days after the meeting. Any changes to the draft minutes must reach the Programme Secretariat within one week after the distribution of the minutes. After this deadline, the Programme Secretariat shall produce and file a final version, a copy of which shall also be sent to all Programme Directors.

ii) The Programme Secretariat (including Programme Coordinators)

The Secretariat has responsibility for the overall daily operational and administrative management of the programme under the guidance and governance of the Master's Board. The

Secretariat is partly based at the Project Coordinator Institution, also designated as the Master's Secretariat, to support the coordination and day-to-day management of the programme and its support mechanisms, specifically tasks regarding quality assurance, application, selection and admission, student administration, mobility coordination. The Secretariat also includes a wider group of Programme Coordinators, with each of the partner institutions providing a representative member to the Programme Coordinators group. Partner Programme Coordinator representatives will liaise with Programme Coordinators from other partner institutions and provide an administrative support to the Secretariat for issues arising that are associated with the partner institution they are representing. The Secretariat also provides direct support for the Master's Board Meetings (the minutes), the public website, and other tasks assigned by the Master's Board.

iii)   The Joint Admissions Board

Assisted by the Secretariat and under the supervision of the Master's Board, the Joint Admissions Board is responsible for the selection and admission of all students to the degree programme. The Joint Admissions Board shall consist of one representative from each Partner Institution. The Partner Institution is responsible for appointing its representative in accordance with its own procedures and national regulations. The Joint Admissions Board convenes at least once after each application deadline and can hold additional meetings until a selection and admission procedure is completed.

iv)   The Examinations Board

The Examinations Board is headed by the Master's Board of Directors. The Master's Board is responsible for the overall quality and standards of the degree programme and for agreeing upon the academic standards. It monitors the partner institutions' compliance and is responsible for the degree programme being delivered to the highest academic standards. The Examinations Board may be supplemented with additional nominees from Partner Institutions that have expertise in quality assurance and those who are responsible for programme examination administration. Meetings of the Examinations Board convene after each programme examination session and after a provision of adequate time for grading and assessment of learners' exam scripts, project submissions, or other relevant coursework by programme faculty. The Examinations Board deliberates cases, brought to its attention with at least one week notice. If the nature of the case brought to its attention demands a swift ruling, a special meeting may be arranged or written consultation of its members via electronically mediated systems instead. All assessments are conducted in accordance with the jointly agreed policies and procedures for the degree programme as adopted by the Master's Board (specifically in accordance with the Study and Examination Regulations).

v)   The Joint Programme Committee

The Joint Programme Committee acts as advisor to the Master's Board of Directors. It is responsible for the system review and advice on policy developments for the joint degree programme. The Joint Programme Committee meets physically at least once a year to ensure

the coherence and consistency of the concept of the joint degree programme. Additional meetings can also be held if required. The Joint Programme Committee is composed of representatives from the Secretariat, Programme Coordinators, the Master's Board of Directors, Faculty representatives, and representatives from the Quality Enhancement and Curriculum Development Committee.

vi)   The Quality Enhancement and Curriculum Development (QECD) Committee

The Quality Enhancement and Curriculum Development Committee is composed of at least one academic faculty member from each Partner Institution. The QECD Committee prepares and implements on behalf of the Master's Board of Directors quality enhancement and curriculum development and reinforces the jointness of the degree programme adhering to the European Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG). The QECD Committee is accountable to the Master's Board. The QECD Committee meets whenever called upon or whenever the annual internal quality procedures as detailed in the Internal Quality Handbook of the Programme require, either in person or via electronically mediated systems. The QECD Committee assists the Joint Programme Committee to evaluate the degree of achievement of learning objectives and the coherence of the programme and ensures that there are effective procedures for data collection, information analysis and proposals and the channelling of suggestions for improvement of the degree programme.

vii)   The Project Coordinator

The Project Coordinator is responsible for:

- Student Recruitment, Onboarding, and Support: Managing recruitment, onboarding, and support processes, including the use of digital platforms and supplementary events.
- Industry Certifications & Micro-Credentials: Implementing industry certifications and micro-credentials.
- Employability Programme: Establishing an employability programme for students.
- European Mobility Programme: Facilitating student and lecturer mobility between institutions and companies.
- Faculty Training Resources: Providing resources for faculty training and support.

Moreover, the Project Coordinator has overall coordination responsibility over the degree programme. He/she represents the Digital4Business consortium partnership before the Commission and reports to the Master's Board and other stakeholders on the operation and programme coordination issues and quality enhancement outcomes.

viii) Faculty Members

The programme's teaching staff includes academics from each of the partner institutions directly involved in the design, development, and delivery of the programmes. It comprises highly qualified lecturers and researchers with a broad range of expertise across the spectrum of subjects associated with Advanced Digital Technologies for Business. The programme

Faculty's prime responsibility is to develop ideas on curriculum matters, to agree innovative teaching materials and methods, to engage in professional discussion with fellow academics and to embark on cross-curricular interdisciplinary thinking. They may participate in teacher exchange and joint teaching programme design. The programme Faculty focuses on approaches to teaching and learning, assessment and performance, and comparative analysis of student workload. The faculty is committed to providing the best possible service to students of the Master's programme.

Set of Quality Assurance Procedural Documents

In the following section, the procedures and methodologies for quality enhancement are described into detail. For each procedure the objective is specified together with the data collection system, the data analysis system, and the enhancement system for suggesting and implementing improvements to the Master's programme, as well as the available instruments for the procedure. References to the instruments are systematically coded for easy retrieval.

For instance, IQH.03 refers to:

- procedure 3 in the Internal Quality Handbook (i.e. the Procedure for Class Representative Meetings).

The specific actions detailed in the data collection system, the data analysis system and the enhancement system are to be implemented in a coordinated manner by the different Digital4Business partner institutions in their respective areas of competence. The different procedures explained into detail in this document are:

- IQH.01 Procedure for Academic Performance Analysis
- IQH.02 Procedure for Student Module Level Satisfaction Survey
- IQH.03 Procedure for Class Representative Meetings
- IQH.04 Procedure for Suggestions and Complaints
- IQH.05 Procedure for Quality Enhancement Planning

The outputs from Quality Assurance procedures are incorporated into an Annual Programme Review Report.

IQH.01 Procedure for Academic Performance Analysis

Internal Quality Procedure Reference	IQH.01
Title	Procedure for Academic Performance Analysis
Data Collection System	In September of each year, the Digital4Business Master's Secretariat runs reports from the central administration system to ascertain cohort indicators of the students that started instances of i) the Full-Time programme, ii) the Part Time Accelerated programme, and iii) the Part Time Programme.

	The Digital4Business Master's Secretariat runs reports from the central administration system to ascertain cohort indicators of the students that are currently still enrolled per programme instance for i) the Full-Time programme, ii) the Part Time Accelerated programme, and iii) the Part Time Programme. Additionally, reports are run to provide indicators of the number of students enrolled on each of the modules per programme instance for i) the Full-Time programme, ii) the Part Time Accelerated programme, and iii) the Part Time Programme.
Data Analysis System	The Project Coordinator and the QECD Committee analyse the academic performance indicators, diagnose possible causes for deviations from reference values and send an analysis report and improvement recommendations to the Master's Board of Directors in November.
Enhancement System	In November, the Master's Board of Directors considers the recommendations and delegates implementation of the enhancement measures to the Project Coordinator or specific partner institutions, unless decided otherwise.

IQH.02 Procedure for Student Module Level Satisfaction Survey

Internal Quality Procedure Reference	IQH.02
Title	Procedure for Student Module Level Satisfaction Survey
Data Collection System	For each programme instance, midway through each academic semester, the Digital4Business Master's Secretariat distributes Online Student Survey Questionnaires to student cohorts to receive feedback for each of their enrolled modules, in particular on the quality of teaching, the overall organization and coherence of the module, and the workload. Each survey questionnaire contains two dedicated questions on the workload. The questionnaires serve as a central tool to ensure that the workload is monitored continuously, that the credit points are allocated adequately. If the latter does not apply, credit points, module contents and/or learning outcomes can be adjusted if necessary. Students have one week to complete the questionnaires. Over the course of the next two weeks, the Master's Secretariat processes the surveys. Individual lecturers receive module level feedback following the collection of results of the surveys. The Master's Secretariat also compiles all results, determines average satisfaction rates, and provides a summary report to the Project Coordinator, the QECD Committee, and the Joint Programme Committee.
Data Analysis System	The Joint Programme Committee and the Project Coordinator analyse the summary results, diagnose possible problems, and send a report for improvement proposals to the Master's Board of Directors within two weeks of receiving the initial summary data.

	The Master's Board of Directors then must ensure that the results are distributed to the lecturers. Lecturers consider and analyse the feedback received for the modules that they teach. They discuss the results of the surveys with the students in class. Finally, they identify potential areas where modifications may be required to enhance delivery.
Enhancement System	The Master's Board of Directors adopts the improvement proposals based on the summary results and delegates implementation of the improvement measures to the Project Coordinator, the QECD Committee and/or specific partner institutions, unless decided otherwise. Lecturers use the module level feedback received from students to inform whether consideration should be given to explore alternative pedagogical strategies when delivering the module.

IQH.03 Procedure for Class Representative Meetings

Internal Quality Procedure Reference	IQH.03
Title	Procedure for Class Representative Meetings
Data Collection System	For each programme instance, during programme orientation, each cohort of students elect up to two individuals to act as class representatives. The role of the class representative is to act as a formal interface between cohorts of students and the teaching and administrative staff for issues that may potentially have an impact at the group level. The Master Secretariat establishes communication channels with the class representatives for each cohort at the beginning of each semester. In the sixth week of each semester, class representatives are requested to submit documented feedback on various aspects of their program, such as academic content, student services, timetabling, and any concerns or positive points they wish to raise. We then inform the representatives that a meeting is scheduled for the eighth week, where they, along with the Master's Board of Directors and the Project Coordinator, will discuss this feedback and address any arising issues.
Data Analysis System	On receipt of the class representative feedback for each cohort, the Master's Secretariat forwards the feedback documentation to the Master's Board of Directors and the Project Coordinator. A meeting is then scheduled (for week 8) with the class representatives, the Master's Board of Directors, and the Project Coordinator. The Master's Board of Directors and the Project Coordinator consider the feedback provided by the class representatives. A set of responses is compiled addressing any issues raised for discussion at the scheduled week 8 meeting.
Enhancement System	The Master's Board of Directors, and the Project Coordinator discuss any issues raised by the class representatives at the scheduled week 8 meeting. Potential improvement proposals are also discussed, and a set of actions and tasks are compiled as an output of the meeting. These actions and tasks are the responsibility of the Project Coordinator who then delegates completion of the tasks to the appropriate person(s) or groups.

IQH.04 Procedure for Suggestions and Complaints

Internal Quality Procedure Reference	IQH.04
Title	Procedure for Suggestions and Complaints
Data Collection System	Students wishing to suggest or comment about the programme policies or services, either academic or non-academic, can do so informally: • at the university by contacting the person in charge (where it seems appropriate), • by raising non-individual matters with the student class representatives • by raising individual matters with their student advisor or tutor. If informal channels do not suffice, formal suggestions and complaints can be submitted: • by sending a message to either a representative of the Master Secretariat or the Project Coordinator, • by writing a formal letter to the relevant Programme Director and/or joint Programme Coordinator, or if the complaint is lodged against the Programme Director and/or Joint Programme Coordinator, by writing to the President of the Project Coordinator's institution.
Data Analysis System	The addressee of a complaint will keep the name of the issuer or any other reference anonymous (unless the complainer states otherwise) and facilitate a prompt resolution of the complaint. • The Master's Board will consider complaints about academic judgments and about matters to do with the student's course of study or research, only if the candidate is not satisfied with the outcome reached by the partner institution associated with the module for which there is a complaint. • Regarding results of examinations the Board may function as a Review Committee only if the student is not satisfied with the outcome reached at the partner institution via interaction with the relevant Programme Coordinator. • Concerning the handling of complaints of academic judgments and the effective organization of tests and examinations the partner institutions guarantee a system that adequately takes into account the specific nature of the joint programme and its exigencies.
Enhancement System	An initial response to any complaint can be expected within 7 days of complaint receipt, and a considered response to the complaint should be received within a further three weeks, with any subsequent remedy implemented with the minimum of delay.

IQH.05 Procedure for Quality Enhancement Planning

Internal Quality Procedure Reference	IQH.05
Title	Procedure for Quality Enhancement Planning
Data Collection System	The QECD Committee decides on the organisation of improvement actions that have been delegated to it by the Master's Board of Directors. The QECD Committee ensures that for every (major) improvement action a person is appointed as responsible for monitoring the improvement action during implementation and at

	completion. On completion, the appointed person creates an evaluation report which is made available to the Programme Coordinator, the QECD Committee and the Joint Programme Committee.
Data Analysis System	In cooperation with the Programme Coordinator, the QECD Committee compiles an overview report based on the improvement action evaluation reports. This is sent accompanied with recommendations for further action to the Board of Directors. These recommendations may include concrete proposals for modifications of the Internal Quality Handbook itself.
Enhancement System	The Master's Board of Directors adopts the recommendations and proposals and delegates their implementation to the Programme Coordinator, the QECD Committee and/or partner institutions involved, unless decided otherwise.

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