MCAST PROGRAMMES - PUBLIC INFORMATION TEMPLATE (FULL TIME)

Institute	Institute of Information and Communication Technology
Department	-

Programme Title	Bachelor of Science (Honours) in Applied Data Sciences				
Course Code *To be filled in by Admissions Dept.*	IT6-A08-23		**If the programme includes a WBL element, How is it accredited?**	Apprenticeship	
MQF/ EQF Level	Level 6	**Type** *(refer to Appendix 1 for Parameters)*	Qualification	**Awarding Body**	MCAST – Malta College of Arts, Science and Technology
Accreditation Status	Accredited via MCAST's Self Accreditation Process (MCAST holds Self-Accrediting Status as per 1st schedule of Legal Notice 296/2012)				
Mode of Delivery	Face to Face	**Duration**(Academic Years or Semesters)	3 Years	**Mode of Attendance**	Full-Time
Total Number of Credits	180 credits	**Total Learning Hours** *(25 Total Learning Hours for each ECTS)*	4500 hours		
Target Audience	Ages 16 - 65	**Target Group** *(the type of learners that the educational institution anticipates joining this programme)*	-		
Programme Fees	There are no fees applicable to Maltese and other EU Nationals (as will be evidenced by their Identity Document) Fees apply for other International Applicants… for fee information and any related updates it is best to communicate with MG2i International through applyinternational@mcast.edu.mt One may consider checking about possible eligibility or otherwise for any exemption from fees by contacting the relevant section within MEYR (Floriana) – or visit the servizz.gov.mt website here				
Date of Next Student Intake	For further information regarding upcoming student intake and applications time windows for same kindly click here				
Language of Instruction	The official language of instruction at MCAST is English. All notes and textbooks are in English (except for language courses, which will be in the respective language being instructed). International candidates will be requested to meet English language certification requirements for access to the course.				
Application Method	Applications to full-time courses are received online via the College Management Information System. Applicants can log-in using Maltese Electronic ID (eID) in order to access the MCAST Admissions Portal directly and create one's own student account with the identity being verified electronically via this secure service. Non-EID applicants need to request account creation though an online form after that they confirm that their local Identification Document does not come with an EID entitlement. . Once the identity is verified and the account is created on behalf of the applicant, one may proceed with the online application according to the same instructions applicable to all other applicants.				

	For more information about how to apply online for a course at MCAST, please visit: https://mcast.edu.mt/how-to-apply-online-2/
Information for Non-EU Citizens	Non-EU candidates require a study visa in order to travel to Malta and join the course applied for (on a Full Time delivery mode). For further information re study-visa please access https://www.identitymalta.com/unit/central-visa-unit/. Further information International / TCN applicants should take note of before requesting to being considered for a programme of studies at MCAST, can be obtained through the respective FAQ found on https://mcast.edu.mt/important-information/
IMPORTANT note to Non-EU Nationals / TCNs	In instances where a TCN is applying for an MCAST programme of studies which includes Apprenticeship / Placement / Internship, it is the applicant's responsibility to check with the relevant Maltese Authority whether one would be eligible to have the necessary permits to be able to carry out the accredited Apprenticeship / Placement / Internship, success from which is expected in order to be able to successfully complete the selected programme of studies. Further information can also be obtained through the respective FAQ found on: https://mcast.edu.mt/important-information/

Address where the Programme will be Delivered	*MCAST has four campuses as follows:*
	
	MCAST Main Campus
	Triq Kordin,
	Paola, Malta
	
	All courses except for courses delivered by the Institute for the Creative Arts, the Centre of Agriculture, Aquatics and Animal Sciences and the Gozo Campus are offered at the Main Campus address (above).
	
	Courses delivered by the Institute for the Creative Arts, the Centre of Agriculture, Aquatics and Animal Sciences, or the Gozo Campus, are offered in one of the following addresses as applicable:
	
	Institute for the Creative Arts
	Mosta Campus
	Misraħ Għonoq Tarġa Gap,
	Mosta
	
	Institute of Applied Sciences
	Centre of Agriculture, Aquatics and Animal Sciences,
	Luqa Road, Qormi
	
	Gozo Campus
	J.F. De Chambray Street
	MCAST, Għajnsielem
	Gozo
	
	In the case of courses delivered via Online Learning, students will be following the programme from their preferred location/address.
	
	Programmes delivered via Blended Learning, and which therefore contain both an online and a face to face component shall be delivered as follows:
	
	   o Face to Face components – as per above address instructions
	   o Online components – from the student's preferred address.

Course Description *(Refer to Programme Specification)*	The degree in Applied Data Sciences is designed for individuals who are interested in utilizing data to solve complex challenges in various fields. With a focus on applied methodology, analytical skills, and hands-on experience, students will learn how to use advanced analytical tools and techniques to uncover hidden trends and patterns that can lead to business success. The programme covers a range of topics related to software engineering, data organization, and data analysis using the latest technologies in business intelligence, reporting, machine learning, and big data. In addition, the degree includes a strong emphasis on text mining and natural language processing (NLP), which are key tools for extracting insights from unstructured data. The program also covers critical thinking skills, building strategies for promoting businesses, understanding consumer behaviour, computational linguistics and the laws governing business processes. A work-based component provides an opportunity for students to gain valuable industry experience and learn from real-world professionals. At the end of the programme, students will undertake a research component in the form of a dissertation. The degree is ideal for individuals who are passionate about leveraging technology to drive business performance and make data-driven decisions.
Deskrizzjoni tal-Kors *(Refer to Programme Specification)*	Il-programm fil-livell ta' baċellerat f'Applied Data Sciene huwa mfassla għal individwi li huma interessati li jutilizzaw id-data biex isolvu sfidi kumplessi f'diversi oqsma. B'enfasi fuq metodoloġija applikata, ħiliet analitiċi, u esperjenza prattika, l-istudenti se jitgħallmu kif jużaw għodda analitiċi avvanzati biex jikxfu xejriet u mudelli li jistgħu jwasslu għas-suċċess tan-negozju. Il-programm ikopri firxa ta' suġġetti relatati mal-inġinerija tas-software, l-organizzazzjoni tad-data u l-analiżi tad-data bl-użu tal-aħħar teknoloġija fl-intelliġenza tan-negozju, ir-rappurtar, machine learning u l-big data. Barra minn hekk, il-programm jinkludi enfasi qawwija fuq text mining u l-ipproċessar tal-lingwa naturali (NLP), li huma għodod ewlenin biex ikun hemm analiżi tad-data mhux strutturata. Il-programm ikopri wkoll ħiliet ta' ħsieb kritiku, bini ta' strateġiji għall-promozzjoni tan-negozji, studju dwar l-imġiba tal-konsumatur, lingwistika komputazzjonali u l-liġijiet li jirregolaw il-proċessi tan-negozju. Komponent ibbażat fuq ix-xogħol jipprovdi opportunità għall-istudenti biex jiksbu esperjenza siewja fl-industrija u jitgħallmu minn professjonisti fid-dinja tax-xogħol. Fi tmiem il-programm, l-istudenti se jagħmlu ukoll proġett tar-riċerka. Il-kors huwa ideali għal individwi li għandhom passjoni biex jużaw it-teknoloġija biex imexxu l-prestazzjoni tan-negozju u jieħdu deċiżjonijiet ibbażati fuq l-użu tad-data.
Career Opportunities:	Data Analyst, Business Analyst Data Scientist, Data Engineer*, Machine Learning Engineer*, Big Data Engineer*, Data Architect Data Mining Engineer*, Data Visualization Specialist *The term Engineer shall not carry or imply the meaning attributed to the term "Engineer" in Article 2 of the Engineering Profession Act (Chapter 321 of the Laws of Malta)
Entry Requirements *(Refer to Prospectus / Course Page on MCAST website)*	Internal Progression Route…. MCAST MQF level 4 Advanced Diploma in IT OR 2 A-Level passes and 2 I-Level passes <u>Compulsory</u> A-Level: Computing AND <u>Compulsory</u> A-Level or I-Level:Mathematics (Pure or Applied) OR Accounting OR Economics OR Marketing (Note that as from Admissions 2026, Marketing will no longer be considered as one of the compulsory subejcts considered for entry into this Degree programme)
Other Notes related to this Programme, and which are to be taken note of	Experience in a programming language (Python or similar) is considered essential. Applicants with a good working knowledge of Computing, Mathematics and Statistics will better benefit from a more fruitful learning experience throughout the course Information Technology at A or I Level (or similar) is not a substitute for the

	Compulsory Subject/s as shown in the Entry Requirements for this degree programme.
Programme Learning Outcomes *(Refer to Programme Specification)*	At the end of the programme the learner will be able to: 1. Acquire knowledge and skills in various areas of information technology, business, and finance. 2. Evaluate and solve problems in a diverse range of data contexts. 3. Apply theoretical knowledge to real-world situations and develop practical solutions to address business and technological challenges.
Teaching, Learning and Assessment Procedures	The programmes offered are vocational in nature and entail both theoretical lectures delivered in classes as well as practical elements that are delivered in laboratories, workshops, salons, simulators as the module requirements dictate. Each module or unit entails a number of in person and/or online contact learning hours that are delivered by the lecturer or tutor directly (See also section 'Total Learning Hours). Access to all resources is provided to all registered students. These include study resources in paper or electronic format through the Library and Resource Centre as well as tools, software, equipment and machinery that are provided by the respective institutes depending on the requirements of the course or module. Students may however be required to provide consumable material for use during practical sessions and projects unless these are explicitly provided by the College. All Units of study are assessed throughout the academic year through continuous assessment using a variety of assessment tools. Coursework tasks are exclusively based on the Learning Outcomes and Grading Criteria as prescribed in the course specification. The Learning Outcomes and Grading Criteria are communicated to the Student via the coursework documentation. The method of assessment shall reflect the Level, credit points (ECTS) and the schedule of time-tabled/non-timetabled hours of learning of each study unit. A variety of assessment instruments, not solely Time Constrained Assignments/Exams, are used to gather and interpret evidence of Student competence toward pre-established grading criteria that are aligned to the learning outcomes of each unit of the programme of study. Grading criteria are assessed through a number of tasks, each task being assigned a number of marks. The number of grading criteria is included in the respective Programme Specification. The distribution of marks and assessment mode depends on the nature and objectives of the unit in question. Coursework shall normally be completed during the semester in which the Unit is delivered. Time-constrained assignments may be held between 8 am and 8 pm during the delivery period of a Unit, or at the end of the semester in which the Unit is completed. The dates are notified and published on the Institute notice boards or through other means of communication. Certain circumstances (such as but not limited to the COVID-19 pandemic) may lead Institutes and Centres to hold teaching and assessment remotely (online) as per MCAST QA Policy and Standard for Online Teaching, Learning and Assessment (Doc 020) available via link https://www.mcast.edu.mt/college-documents/

	The Programme Regulations pertaining to this Programme's MQF/EQF level available at: link https://www.mcast.edu.mt/college-documents/, apply.
Grading System	All MCAST programmes adopt a Learner-centred approach through the focus on Learning Outcomes. The assessment of MCAST programmes is criterion-referenced and thus assessors are required to assess learners' evidence against a pre-determined set of Learning Outcomes and Assessment Criteria. For a student to be deemed to have successfully passed a unit, a minimum of 50% (grade D) must be achieved. All full time units are individually graded as follows: A* (90-100) A (80-89) B (70-79) C (60-69) D (50-59) Unsatisfactory work is graded as 'U'. Work-based learning units (where applicable) are graded on a Pass/Fail basis only. Some units which follow industry standards and regulations may also be graded on a Pass/Fail basis as per programme regulations referred below. Detailed information regarding the grading system may be found in the Programme Regulations pertaining to this programme's MQF/EQF Level available at: https://www.mcast.edu.mt/college-documents/ (Refer to DOC 003, 004 and 005)
Exit Point (where and as applicable)	Where a student will not make it to the Final Certification achievable from this Programme of Studies (as per Programme Regulations), one might wish to look into Exit Point possibilities as may be applicable to this programme for studies. Further information, is available at https://www.mcast.edu.mt/college-documents/, kindly refer to *DOC 077 Procedure for the processing of Claims for Certificates at Interim Exit Points.*
Contact details for Further Learning Opportunities	The MCAST Career Guidance Team, offers the service of qualified and experienced Career Advisers who will be very willing to discuss with potential applicants the course which best achieves one's career ambitions, as well as exploring one's education route, or similar. **MCAST Career Guidance** Tel: 2398 7135/6 Email: career.guidance@mcast.edu.mt
Regulatory Body/ Competent Authority Contact Details *(where applicable - in the case of a programme leading to Regulated Profession)*	Not Applicable

Programme Structure	Unit Code	Unit Title	ECTS	Year	Semester
	BCFIN-506-1517	Managing Financial Resources and	6	1	1

		Decisions			
ITSFT-506-2006	Object Oriented Programming	6	1	1
ITDBS-506-1603	Database Programming I	6	1	1
ITSFT-506-1606	Software Engineering	6	1	1
CDKSK-503-2328	English for Academic Purposes	3	1	1
ITSFT-506-1608	Data Structures and Algorithms	6	1	2
ITADS-506-2301	Programming for Data Science	6	1	2
ITADS-506-2302	Probability and Statistics for Data Science	6	1	2
ITDBS-506-2003	Database Programming II	6	1	2
CDWBL-506-1901	Work Based Learning I	6	1	2
ITADS-503-2303	Data Governance, Security and Ethics I	3	1	2
CDWBL-506-1902	Work Based Learning II	6	2	1,2
ITADS-506-2305	Data Visualisation and Data-Driven Decision-Making	6	2	1
ITADS-506-2306	Machine Learning 1	6	2	1
ITADS-506-2308	Text mining	6	2	1
ITADS-503-2304	Data Governance, Security and Ethics II	3	2	1
BCACC-506-1801	Financial Accounting and Reporting	6	2	2
ITADS-506-2307	Machine Learning 2	6	2	2
ITSFT-506-2012	Securing Applications	6	2	2
ITRSH-506-2101	Research Design I	6	2	2
CDKSK-604-2336	Entrepreneurship	4	2	2
CDKSK-602-2335	Community Social Responsibility	2	2	2
CDKSK-503-2329	English for Dissertation Writing	3	2	2
ITIMG-606-1601	Image Processing and Computer Vision	6	3	1
BCMRK-606-1514	Consumer Behaviour	6	3	1
ITMSD-606-2312	Full Stack Development	6	3	1
ITDVP-606-2101	Devops	6	3	1
ITADS-606-2309	Computational Linguistics	6	3	2
ITSFT-606-2304	Business Intelligence & Reporting	6	3	2
BCMGT-606-1507	Strategic Management	6	3	2
ITRSH-606-2102	Research Design II	6	3	2
ITDIS-612-1601	Dissertation	12	3	2

Allocation of Total Learning Hours (per Unit)	The total learning hours required for each unit or module are determined as follows:			
	Credits (ECTS)	Indicative contact hours[1]	Self-Learning and Assessment Hours[3]	Total Student workload (hrs)[2]
	1	5 – 10 hrs	20 - 15 hrs*	25 hrs
	2	10 – 20 hrs	40 - 30 hrs*	50 hrs
	3	15 – 30 hrs	60 - 45 hrs*	75 hrs
	4	20 – 40 hrs	80 - 60 hrs*	100 hrs
	6	30 – 60 hrs	120 - 90 hrs*	150 Hrs
	9	45 – 90 hrs	180 - 135 hrs*	225 hrs
	12	60 – 120 hrs	240 - 180 hrs*	300 hrs
	Note: The 'Self-Learning and Assessment Hours[3]' amount to the difference between the 'Indicative Contact Hours'[1] and the 'Total Student Workload'[2]			

APPENDIX 1

MINIMUM CREDITS FOR QUALIFICATIONS AT DIFFERENT LEVELS

MQF Level	Minimum ECTS Required for a Qualification*
8	
7	30
6	180
5	30
4	30
3	60
2	60
1	40

*Programmes assigned fewer ECTS than indicated will be classified as Awards.

Reference: Fig.1: p48, Malta Further and Higher Education Authority (MFHEA) (October 2024). Referencing Report, 5th Revised Edition.

APPENDIX 2

EXAMPLES OF QUALIFICATION TYPES AT A SPECIFIC MQF LEVEL

MQF Level	Examples of qualification types at a specific MQF level (The list in this column is not exhaustive)	Number of ECTS *
8	Doctoral Programmes:	
	PhD	N/A
	Professional Doctorate	180
7	Master's Degree	90
	Postgraduate Diploma	60
	Postgraduate Certificate	30
6	Bachelor's Degree	180
	Bachelor's Honours	240
5	Undergraduate Higher Diploma	90
	Undergraduate Diploma	60
	Undergraduate Certificate	30
	VET Level 5	60
4	Advanced Diploma	120
	Pre-Tertiary Certificate	30 - 60
	MATSEC Matriculation Certificate (Advanced and Intermediate)	N/A
	VET Level 4	120
3	Certificate	60
	MATSEC Secondary Education Certificate	N/A
	VET Level 3	60
2	Foundation Certificate	60
	MATSEC Secondary Education Certificate	N/A
	VET Level 2	60
1	Introductory Certificate	40
	VET Level 1	40

*Programmes assigned fewer ECTS than indicated will be classified as Awards.

Reference: Fig.2: p48, Malta Further and Higher Education Authority (MFHEA) (October 2024). Referencing Report, 5th Revised Edition.