

MCAST PROGRAMMES - PUBLIC INFORMATION TEMPLATE (FULL TIME)

Institute	Institute of Engineering and Transport
Department	Mechanical Engineering Department

Programme Title	Bachelor of Engineering (Honours) in Mechanical Engineering (Plant)				
Course Code <i>To be filled in by Admissions Dept.</i>	ME6-W03-23		If the programme includes a WBL element, How is it accredited?		Placement / Internship
MQF/ EQF Level	Level 6	Type <i>(refer to Appendix 1 for Parameters)</i>	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 <i>(Academic Years or Semesters)</i>	4 Years	Mode of Attendance	Full-time
Total Number of Credits	240 credits	Total Learning Hours <i>(25 Total Learning Hours for each ECTS)</i>		6000 hours	
Target Audience	Ages 16 - 65	Target Group <i>(the type of learners that the educational institution anticipates joining this programme)</i>	-		
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				

	<p>applicant, one may proceed with the online application according to the same instructions applicable to all other applicants.</p> <p>For more information about how to apply online for a course at MCAST, please visit: https://mcast.edu.mt/how-to-apply-online-2/</p>
Information for Non-EU Citizens	<p>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/.</p> <p>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/</p>
IMPORTANT note to Non-EU Nationals / TCNs	<p>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:</p> <p>https://mcast.edu.mt/important-information/</p>
Address where the Programme will be Delivered	<p><i>MCAST has four campuses as follows:</i></p> <p>MCAST Main Campus Triq Kordin, Paola, Malta</p> <p><i>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).</i></p> <p><i>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:</i></p> <p>Institute for the Creative Arts Mosta Campus Misraħ Għonoq Tarġa Gap, Mosta</p> <p>Institute of Applied Sciences Centre of Agriculture, Aquatics and Animal Sciences, Luqa Road, Qormi</p> <p>Gozo Campus J.F. De Chambray Street MCAST, Għajnsielem Gozo</p> <p><i>In the case of courses delivered via Online Learning, students will be following the programme from their preferred location/address.</i></p> <p><i>Programmes delivered via Blended Learning, and which therefore contain both an online and a face to face component shall be delivered as follows:</i></p>

	<ul style="list-style-type: none"> ○ Face to Face components – as per above address instructions ○ Online components – from the student's preferred address.
Course Description <i>(Refer to Programme Specification)</i>	<p>This degree programme in Mechanical Engineering is relevant to a range of industries, since it covers the key mechanical engineering principles and subject areas for the plant engineer. The course is therefore wide-ranging and it will develop the candidates' ability to apply these principles to solve engineering problems in a variety of work environments and business concerns. The course contains study-units in various areas such as Fluid Mechanics, Plant Technology, Control Principles, Control Engineering, Electrical Technology, HVAC, Vibration Analysis and Heat Engines. Additional managerial modules and modules in environmental engineering further enhance this programme so that graduates may add real value to the organisation that employs them.</p> <p>This course is recognised by the Board tal-Inġiniera as a prerequisite for the application of the Engineering Warrant (Ing.) as established by ACT No. XLVIII of 2021.</p>
Deskrizzjoni tal-Kors <i>(Refer to Programme Specification)</i>	<p>Dan il-programm li jwassal għal baċcellerat fl-Inġinerija Mekkanika huwa rilevanti għal firxa ta' industrij, minhabba li jkopri l-prinċipji ewlenin tal-inġinerija mekkanika u l-oqsma ta' interess għall-inġinier tal-impjanti. Għalhekk il-kors huwa wieħed komprensiv u jiżviluppa l-kapaċità tal-kandidati li japplikaw dawn il-prinċipji biex isolvu problemi tal-inġinerija f'varjetà ta' ambjenti tax-xogħol u intrapriżi. Il-kors jinkludi unitajiet ta' studju f'diversi oqsma, bħall-Mekkanika tal-Fluwidi, it-Teknoloġija tal-Impjanti, il-Prinċipji tal-Kontroll, l-Inġinerija tal-Kontroll, it-Teknoloġija Elettrika, l-HVAC, l-Analiżi tal-Vibrazzjoni u l-Magni tas-Sħana. L-unitajiet ta' studju maniġerjali addizzjonali u l-unitajiet fl-inġinerija ambjentali jkomplu jsaħħu dan il-programm, sabiex dawk li jiggradwaw minn dan il-kors ikunu jistgħu verament iżidu valur għall-organizzazzjoni li timpjegahom.</p> <p>L-kors huwa rikonoxxut mill-Bord tal-Inġiniera bħala rekwiżit għall-applikazzjoni tal-Inġinerija Warrant (Ing.) kif stabbilit mill-ATT Nru XLVIII tal-2021.</p>
Career Opportunities:	<p>Mechanical Engineer, Engineering Plant Systems Designer, Mechanical Engineering Analyst, Hotel Engineer, Plant Engineer</p>
Entry Requirements <i>(Refer to Prospectus / Course Page on MCAST website)</i>	<p>Internal Progression Route... MCAST Advanced Diploma in Operations and Maintenance (with an overall mark of 60% or higher) or MCAST Undergraduate Diploma in Foundations of Engineering</p> <p>OR</p> <p>2 A-Level passes and 2 I-Level passes <u>Compulsory</u> A-Levels: Physics and Mathematics (Pure or Applied) Applicants need to obtain an average Grade C across their A-Levels in Mathematics and Physics (such as Grades C, C; Grades B, D; Grades A, E)</p>
Other Notes related to this Programme, and which are to be taken note of	<p>Applicants submitting their application under the Maturity Clause, MUST be in possession of the MCAST MQF level 5 Undergraduate Diploma in Foundations of Engineering, in order for their application to be considered</p>
Programme Learning Outcomes <i>(Refer to Programme Specification)</i>	<p>At the end of the programme the learner will be able to:</p> <ol style="list-style-type: none"> 1. Analyse a variety of mechanical engineering issues using mathematical and scientific knowledge. 2. Comprehend the operations and rectify failures of a large variety of equipment. 3. Take structured and responsible decisions that will lead to effective and

	<p>efficient solutions.</p> <p>4. Understand complex electronically controlled systems.</p>
Teaching, Learning and Assessment Procedures	<p>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.</p> <p>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').</p> <p>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.</p> <p>Students may however be required to provide consumable material for use during practical sessions and projects unless these are explicitly provided by the College.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>The distribution of marks and assessment mode depends on the nature and objectives of the unit in question.</p> <p>Coursework shall normally be completed during the semester in which the Unit is delivered.</p> <p>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.</p> <p>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/</p> <p>The Programme Regulations pertaining to this Programme's MQF/EQF level available at: link https://www.mcast.edu.mt/college-documents/, apply.</p>
Grading System	<p>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.</p>

	<p>For a student to be deemed to have successfully passed a unit, a minimum of 50% (grade D) must be achieved.</p> <p>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'.</p> <p>Work-based learning units (where applicable) are graded on a Pass/Fail basis only.</p> <p>Some units which follow industry standards and regulations may also be graded on a Pass/Fail basis as per programme regulations referred below.</p> <p>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)</p>
Exit Point (where and as applicable)	<p>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 <i>DOC 077 Procedure for the processing of Claims for Certificates at Interim Exit Points</i>.</p>
Contact details for Further Learning Opportunities	<p>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.</p> <p>MCAST Career Guidance Tel: 2398 7135/6 Email: career.guidance@mcast.edu.mt</p>
Regulatory Body/ Competent Authority Contact Details <i>(where applicable - in the case of a programme leading to Regulated Profession)</i>	Not Applicable

Programme Structure	Unit Code	Unit Title	ECTS	Year	Semester
	ETMTH-606-1809	Mathematics for Engineers 1	6	1	1 & 2
	ETMEC-606-1805	Thermodynamics 1	6	1	1
	ETMEC-606-1806	Fluid Mechanics 1	6	1	1 & 2
	ETMEC-606-1807	Mechanics for Machines 1-Dynamics and Kinematics	6	1	2

	ETDSN-606-1801	Engineering Design & CAD	6	1	1
	ETMEC-606-1804	Applications of Pneumatics and Hydraulics	6	1	1
	ETE&E-606-1802	Fundamentals of Electrical and Electronics Power	6	1	2
	ETMTS-606-1801	Strength of Materials 1	6	2	1
	ETMEC-606-1808	Workshop Practice	6	1	1 & 2
	ETWBL-603-1802	Work Based Learning Internship Part 1	3	1	2
	CDKSK-603-2111	Academic English	3	1	1
	ETMTH-606-1811	Mathematics for Engineers 2	6	2	1 & 2
	ETMEC-606-1811	Thermodynamics 2	6	2	1
	ETMEC-606-1812	Fluid Mechanics 2	6	2	2
	ETMEC-606-1813	Mechanics of Machines 2	6	2	1 & 2
	ETMTS-606-1802	Engineering Materials	6	3	1
	ETPLN-606-1801	Condition Monitoring and Fault Diagnosis	6	2	2
	ETELX-606-1822	Programmable Logic Controllers	6	2	2
	ETENG-603-1804	Environmental Engineering	3	2	1 & 2
	ETENG-606-1805	Energy Management	6	2	2
	ETMTS-606-1803	Strength of Materials 2	6	3	1
	ETWBL-603-1803	Work Based Learning Internship Part 2	3	2	2
	ETMTH-606-1812	Mathematics for Engineers 4	6	4	1 & 2
	ETMEC-606-1522	Vibrations	6	3	1
	ETELE-606-1815	Electrical Power Systems	6	3	1 & 2
	ETMTS-606-1508	Materials for Plant Engineers	6	3	2
	ETPLN-606-1802	Plant Operations a & Performance	6	3	2
	ETENG-606-1505	Control Engineering	6	3	1
	ETPLN-606-1504	Plant Design	6	3	1
	ETMTS-606-1509	Material Loss, Prevention & Protection	6	3	2
	ETMEC-606-1814	Problem Based Learning	6	3	2
	CDKSK-604-1909	Entrepreneurship	4	2	2
	CDKSK-602-2105	Community Social Responsibility	2	2	2

	ETMTH-606-1813	Mathematics for Engineers 3	6	3	1 & 2
	ETMGT-606-1804	Management for Engineers	6	4	2
	ETELX-606-1823	Power Electronics, Devices and Circuits	6	4	1 & 2
	ETPWR-606-1501	Alternative & Traditional Power Generation	6	4	2
	ETHVA-606-1510	HVAC	6	4	1
	ETPLN-606-1505	Plant Typology	6	4	2
	ETPLN-606-1506	Diagnostics and Control	6	4	1
	ETPLN-606-1803	Engineering Plant Technology	6	4	1
	ETRSH-600-1502	Research Methods	0	4	1 & 2
	ETDIS-612-1501	Dissertation	12	4	1 & 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
<i>Note: The 'Self-Learning and Assessment Hours³' amount to the difference between the 'Indicative Contact Hours¹' and the 'Total Student Workload²'</i>				

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.