

MCAST PROGRAMMES - PUBLIC INFORMATION TEMPLATE (FULL TIME)

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| Institute | Institute of Engineering and Transport |
| Department | Mechanical Engineering Department |

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| Programme Title | Master of Science in Mechanical Engineering and Sustainable Technology | | | | |
| Course Code <i>To be filled in by Admissions Dept.</i> | ME7-O01-21p | | If the programme includes a WBL element, How is it accredited? | | Not Applicable, does not include WBL |
| MQF/ EQF Level | Level 7 | 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 Semesters | Mode of Attendance | Full-time |
| Total Number of Credits | 120 credits | Total Learning Hours <i>(25 Total Learning Hours for each ECTS)</i> | | 3000 hours | |
| Target Audience | Ages 23 - 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 | | | | |

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| | <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 Ġhonoq 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, Ġhajnsielem 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> |

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| | <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>The Master of Science in Mechanical Engineering and Sustainable Technology is of high technical content and is designed to promote higher level thinking skills in various areas of engineering with a special focus on modern low carbon and renewable energy systems.</p> <p>Learners will acquire a broad range of skills in the major engineering disciplines allowing them to work in a senior technical or project management role within industry.</p> <p>The course will also provide graduates a foundation for further study or for a career in an engineering related field. The learners will receive advanced study in both the theoretical and the practical aspects of engineering that builds on previous knowledge and experience.</p> <p>This course is not related to the Engineering Warrant.</p> <p>Fees: Fees apply - Further information through MG2i (MCAST Gateway to Industry)</p> |
| Deskrizzjoni tal-Kors <i>(Refer to Programme Specification)</i> | <p>Il-kontenut tal-Master of Science in Mechanical Engineering and Sustainable Technology huwa wieħed tekniku ta' livell avanzat u huwa maħsub biex jippromwovi ħiliet ta' ħsieb ta' livell ogħla f'oqsma varji tal-inġinerija, b'enfasi speċjali fuq sistemi moderni li jipproduċu ammont baxx ta' karbonju jew li jużaw enerġija rinnovabbli. L-istudenti jiksibu firxa wiesgħa ta' ħiliet fid-dixxiplini ewlenin tal-inġinerija. Dan jippreparahom biex jikkupaw pożizzjonijiet għoljin ta' natura teknika jew fit-tmexxija ta' proġetti fl-industrija.</p> <p>Il-kors jipprovdi wkoll lill-partecipanti bażi għal studju aktar avanzat fl-inġinerija jew għal karriera f'qasam relatat. Huma jirċievu tagħlim avanzat kemm fl-aspetti teoretiċi tal-inġinerija, kif ukoll f'dawk prattiċi, liema tagħlim jibni fuq l-għarfien u l-esperjenza li huma jkollhom diġà.</p> <p>Dan il-kors ma jagħtix id-dritt lill-kandidat għall-warrant ta' inġinier.</p> <p>MIŻATI: Japplikaw ħlasijiet - Aktar informazzjoni permezz ta' MG2i (MCAST Gateway to Industry)</p> |
| Career Opportunities: | - |
| Entry Requirements <i>(Refer to Prospectus / Course Page on MCAST website)</i> | <p>Applicants must hold a recognised MQF/EQF Level 6 qualification, with at least 180 credits, in an Engineering or Scientific area.</p> <p>Applicants found eligible as per above, will also be asked to successfully complete a Master's Programme Suitability Interview</p> <p>In the absence of above entry requirements, applicants aged 27 years and over, can submit an application under the Maturity Clause.... but must present a recognised MQF/EQF Level 5 qualification (at least 120 credits), or its equivalent, in an Engineering or Scientific area, together with clear evidence of a minimum of five (5) years (full time) direct and relevant experience.</p> <p>Applicants under Maturity Clause, will be asked to sit for a combined Maturity and Master's Suitability Interview</p> |
| Other Notes related to this Programme, and which are to be taken note of | <p>This Master's Programme MAY be available as Full-Time delivery, if this same programme will be taking off for an International Cohort. Fees apply as will be guided by MG2i (MCAST Gateway to Industry). Information about this Master's Programme being offered on a Part-Time delivery mode, can be found on the MG2i Website promoting such programmes - https://mg2imalta.com/</p> |
| Programme Learning Outcomes | <p>At the end of the programme the students are able to;</p> <ol style="list-style-type: none"> 1. Evaluate critically problems and use professional skills and knowledge in the systematic development of complex engineering systems; |

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| <p>(Refer to Programme Specification)</p> | <p>2. Communicate effectively with other science and engineering professionals and the wider global community using a wide range of communication technologies;</p> <p>3. Understand the engineering fundamentals needed to generate a solution appropriate to the social, political, international, economic and environmental contexts in which they are applied;</p> <p>4. Plan and execute a research project, applying relevant methodologies and knowledge;</p> <p>5. Understand sustainable technologies, their components and interactions between the components.</p> |
| <p>Teaching, Learning and Assessment Procedures</p> | <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> |

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| | The Programme Regulations pertaining to this Programme's MQF/EQF level available at: link https://www.mcast.edu.mt/college-documents/ , apply. | | | |
| 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 | | | |

| | Unit Code | Unit Title | ECTS | Year | Semester |
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| Programme Structure | ETMEC-708-2104 | Engineering Management | 8 | 1 | 1 |
| | ETMEC-708-2105 | Computational Fluid Dynamics | 8 | 1 | 1 |
| | ETMEC-708-2106 | Engineering Design & Manufacture | 8 | 1 | 2 |
| | ETMEC-710-2107 | Power & Propulsion Systems | 10 | 1 | 2 |
| | ETMEC-710-2108 | Low Carbon and Renewable Energy Systems | 10 | 1 | 2 |
| | ETMEC-708-2109 | Applied Materials and Corrosion | 8 | 1 | 1 |
| | ETMEC-708-2112 | Structural Analysis | 8 | 1 | 1 |
| | ETMEC-708-2110 | Quality Engineering | 8 | 2 | 1 |
| | ETMEC-706-2111 | Project Management | 6 | 2 | 2 |
| | ETMEC-706-2113 | Research Methods | 6 | 2 | 1 |
| | ETMEC-740-2114 | MSc Project | 40 | 2 | Year |

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| 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 hours¹ | Self-Learning and Assessment Hours³ | 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* |
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| 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.