Master of Science in Maritime Technology & Management (MTM) Tuition Fees and Curriculum information for Cohort August 2021

Curriculum

Degree Requirements	40MC programme delivered over a 12-month period (full-time) or over 24 months (part-time)				
Condidature	Full-time^	1 year			
Candidature	Part-time	2 years			
Continuation Requirements	https://cde.nus.edu.sg/graduate/graduate-programmes-by- coursework/graduation-requirements/				
Graduation Requirements	Cumulative Average Point (CAP) of at least 3.00 (equivalent to an average of B-)				

Modules

Students are required to read ALL seven compulsory modules below.

Code	Title & Module Description	МС
1E5005	Data Analytics for Industrial Engineers This module introduces basic concepts in descriptive, predictive and prescriptive analytics with a focus on applications that industrial engineers commonly deal with (e.g., inventory control, replacement and maintenance, process improvement, project management and resource scheduling etc.). Topics include descriptive modelling, predictive modelling, error quantification, model training, model selection and data- based decision making.	4
1E5600	Applied Programming for Industrial Systems This module aims to train students to develop a solid competency of the Python programming language through a rigorous and continuous exercise-based approach. Topics covered include fundamental programming concepts (IO, variables and value assignment, conditional statements, flow control, methods), data structures (lists, tuples, sets, dictionaries), objects and classes, recursion, code debugging and efficiency. The course syllabus will also emphasize on various data engineering tools from the NumPy and Pandas modules relevant to implementing industrial systems.	4
MTM5001	Maritime Industry Fundamentals This module covers the fundamentals of the maritime industry and the roles they play in the global economy. Topics covered include ports, their importance in economic development and shipping, the business of shipping and its role in maritime logistics, and the maritime eco-system. Topics in fundamental statistics (e.g. descriptive statistics, basic concepts of probability, sampling distribution, regression models) will also be included.	6
MTM5002	 Port Logistics and Supply Chain This module consists of lectures and seminars. The course coordinator will decide on the proportion of lectures and seminars. Lectures will cover ports as gateways of goods for export and import. Innovative ways (e.g., containerization, improved key port processes, sound operation strategies, and enhanced port connectivity) to enhance ports' efficiency and competitiveness will also be covered. Academics and practitioners will give seminars on emerging technology, port digitalization, digital twin engines, and green maritime technologies.	4
MTM5004	Maritime Data Analytics This module builds on IE5005 and IE5600, where knowledge learnt about data analytics (IE 5005) and programming (IE 5600) is applied to solve maritime-related problems. Students are expected to analyze real-world data sets, define the	6

	objectives and scope of the problems, and then design, develop and implement systems. CMS will work with maritime related companies for access to real world data sets	
МТМ5005	Intermodal Freight Transport and Logistics This module aims to develop in students a solid competency in intermodal freight transport and logistics. Students learn to identify roles of various transport modes together with their importance in logistics. Topics covered include the geography of intermodal transport, policy and planning, and challenges. The module will provide students with a deep understanding of the intricacies of intermodal transport system.	4
MTM5101 or MTM5101P	MTM5101 Industrial Attachment <i>for Full-time Students</i> This is a 15 weeks long industrial attachment with a maritime related company and shall focus on solving a key problem the company is facing.in the maritime space. This programme adopts a strong pedagogical approach in guiding students to solve large-scale maritime problems applying skills such as optimization, simulation and advanced analytics. CMS will source for companies with significantly relevant problems/issues that can challenge our students. CMS will assign a faculty member to co-supervise with the industry mentor. The objective is to immerse the students in a culture of innovation with some of the best minds in the maritime industry. The number of students (not more than 3) assigned to a company will depend on the magnitude and the scale of the problem.	
	or MTM5101P Maritime Team Project for Part-time Students This module (about 3 to a team) aims to provide students with the opportunity to integrate knowledge and theory on maritime technology and management acquired during the programme. Students will work on maritime related issues/problems. Examples of project topics are maritime safety and security, green shipping and logistics, and impact of ICT on maritime operations, port efficiency and effectiveness. Part-time students will embark on their project at the start of Year 2 and complete it 2 months before graduation. Full time students will undertake internships (MTM5101), which will permit them to participate in a real-world problem setting and get the opportunity to solve challenging issues/problems using what they have learnt. However, the internship is an intensive and intense exercise over 15 weeks. Part-time students do not have the luxury of undertaking such an exercise. Rigor required will not be compromised. Mentors from the NUS faculty and the industry will ensure that the part-time students are properly guided.	

The full tuition fee for Academic Year (AY)2021/22 is S\$62,060 (inclusive of GST). A 'Fee Rebate' of S\$10,000 for all new students and an additional \$6,000 for SC and SPR will automatically be awarded to all successful applicants for AY2021/22. The payment schedule (nett of 'Fee Rebate'), due on the first week of every semester, is as follows:

Tuition Fees for AY2021/2022 (inclusive of 7% GST and nett of fee rebate)	Acceptance Fee	1 st Semester	2 nd Semester	3 rd Semester	4 th Semester
Full-time International Students	S\$2,140	S\$24,610	S\$24,610	N.A.	N.A.
Part-time International Students	S\$2,140	S\$12,305	S\$12,305	S\$12,305	S\$12,305
Full-time Singapore Citizen (SC) and Singapore Permanent Resident (SPR) students	S\$2,140	S\$21,400	S\$21,400	N.A.	N.A.
Part-Time Singapore Citizen (SC) and Singapore Permanent Resident (SPR) students	S\$2,140	S\$10,700	S\$10,700	S\$10,700	S\$10,700

- The fees listed are in Singapore Dollars (S\$) and inclusive of 7% Goods and Services Tax (GST).
- A non-refundable application fee of S\$50 (inclusive of 7% GST) must accompany your online application.
- Acceptance Fee of S\$2,140 which will be credited towards your programme fees is payable upon acceptance into the programme. Fee is non-refundable and non-transferable.
- Payment of fees will be on an instalment basis, paid over 2 semesters for full-time students and 4 semesters for part-time students. Complete fee must be paid before a student can graduate from the programme.
- Students need to separately pay for Miscellaneous Student Fee (MSF) directly to the University on a semester basis. If a student has fully paid for his/her tuition fee but has yet to graduate, he/she will still need to pay for MSF for the extended semester(s). For the latest Miscellaneous student fees, please refer to Registrar's Office website <u>here</u>.
- Singapore Citizens or Permanent Residents may apply for the MPA Postgraduate Scholarship. Please refer to the <u>MPA Scholarship website</u> for further details.
- Singapore Citizens or Singapore Permanent Residents may apply for the MPA's Maritime Cluster Fund (MCF) support with up to 70%* co-funding of the course/tuition fee (excluding GST), subject to a cap. Please refer to MCF <u>Training@MaritimeSingapore</u> for more details.
- Programme fee is for 40 Modular Credits (MCs) only. To graduate, a student has to complete 40 MCs. Students reading more than 40 MCs will incur additional prorated programme fees (without subsidy/rebate) at the prevailing rate of the Academic Year in which the module is read.
- Programme fees do not include the cost of recommended textbooks and readings.
- The cost of travel, accommodation and miscellaneous expenses are not included and are to be borne by the participant. For an estimated cost of living, please click <u>here</u>.
- Tuition fees are reviewed yearly and thus subject to revisions.

All fees shown in the table are inclusive of prevailing GST. The prevailing GST is 7% and from 1st January 2023, the GST will increase to 8%.

For enquiries on the above, please contact Ms Mavis Chin at <u>isecyy@nus.edu.sg</u>.