Arab Academy for Science, Technology & Maritime Transport

College of Maritime Transport & Technology

College of Maritime Transport &Technology - CMTT

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College Message

It's a pleasure to welcome the Arab and African youth, the future leaders of Maritime Transport and Technology College, where versatile opportunities are available for those who are interested in being certified and qualified seafarers on-board foreign going vessels through achieving their Certificate of Competency (COC) as deck or engineer officer. Giving them vast opportunities to develop their career by working on national and international merchant marine fleets.

The collage also offers a bachelor degree in Maritime Transport and Marine Engineering Technology as well as educational and training programs in Meteorology, Hydrographic Survey and Diving. All courses are taught by highly qualified lecturers.

The existence of the College as one of the main units in an integrated and collaborative maritime complex within the Arab Academy provides students with a unique opportunity to have excellent Maritime Educational and Training Services.

The availability of training in the College, such as the simulator, the training vessel AIDA IV, Maritime Safety Centre and computer laboratories, as well as diesel engine and marine engineering workshops, enhances the applied aspects of education that the College offers. No wonder, the College was listed by the World Bank in 1995 as a recognized institution of maritime experts. Education and training are administered in a sound, cultural, social, and sportive environment, in addition to ethics and morals, which are basic to the preparation of fine caliber graduates.

Dean's Word

The College of Maritime Transport and Technology (CMTT) is the oldest and one of the most important pillars that support the hierarchical structure of the Arab Academy for Science, Technology and Maritime Transport (AASTMT) since the latter was established in 1972. The College aims to be a leading international center of excellence that provides Maritime Education and Training (MET) services through offering accredited programs and doing research and development work in compliance with the most up-to-date technological advancements in the maritime transport field and related disciplines. The ultimate goal of this policy is to provide the maritime transport industry, locally, regionally and internationally, with highly qualified cadres, thus contributing to the enhancement of the level of the maritime transport services, in line with the AASTMT strategic vision.

The College has always been, and will continue to be, an educational institution which implements scientific methods and benefits from sharp-edge technologies to prepare a new generation of graduates armed with knowledge and ethics and reinforced with modern concepts; a generation which is willing to serve the maritime transport sector in particular and the whole society in general. This commitment stems from a strong belief in the necessity of adopting the aforementioned policy and represents one of the strategic goals of the Academy.

The infrastructure of the College includes modern simulators, laboratories and other facilities necessary to do research and specialized studies. The College programs are also revised and developed periodically, in order to cope with the latest technologies and regulations in the maritime transport field. Moreover, the programs offered by the College are accredited from international evaluation and accreditation organizations with high reputation, which represents an added value to our programs and enhances the competitiveness of our graduates in the international market.

Proud of being the oldest college in the Academy, we are always aiming high and looking forward to reaching the top professional performance level and to leading the maritime transport industry, regionally and internationally, to new horizons of excellence and distinction.

Dr. Captain. Mohi El Din Mohamed El Sayeh

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Vision

To be a specialized leading international maritime educational and training center providing maritime accredited programs and research to keep pace with the latest developments in the field of maritime industry

Mission

The College of Maritime Transport and Technology (CMTT) seeks to efficiently combine the facilities of the Arab Academy and its resources to provide the most advanced up to date maritime educational and training programs. It also provides the maritime transport industry locally, regionally and internationally with well trained and qualified cadres to contribute to upgrading the level of shipping services

College of Maritime Transport & Technology

Introduction

The College of Maritime Transport and Technology is one of the specialized colleges of the Arab Academy for Science, Technology and Maritime Transport which awards specialized certificates in the field of Maritime Transport. Throughout its glorious history of more than twenty five years, this College has been a pioneering college in the field of maritime education and training, which culminated in its obtaining Quality Certificate ISO 9001 in September 1994. No wonder, the countries of the European Union (EU) and the countries which have achieved an advanced status in the Maritime Field recognized the Certificates of Competency (COC) accredited by the Egyptian Authority for Maritime Safety. Therefore, the faculty members of the College exert laudable efforts to prepare the students to excel at performing their jobs in their future career by providing them with the necessary knowledge to play an excellent role in their communities and countries.

The College of Maritime Transport and Technology is committed to serve maritime education and training in the Middle East area and Africa by providing the Maritime Transport Industry with qualified cadres who are capable of enhancing the future of this industry in these areas and contribute to consolidating the maritime transport services all over the world.

Since its inception in 1972, the Academy has established the educational departments system which basically depends on giving every educational department an independent existence and determining a set of educational and training tasks for each department. It merits mentioning that the recent years have witnessed a great increase in the numbers of students who joined the College of Maritime Transport and Technology to specialize in the various fields of maritime transport, which indicates why the establishment of this College was a must to enhance and develop the educational and training programs in the field of Maritime Transport studies.

We envisage the College of Maritime Transport and Technology a pioneering maritime transport center in the field of providing the accredited programs which cope with the latest developments in the Maritime Transport Industry and its related systems.

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In addition to the specialized maritime certificates issued by the Egyptian Maritime Safety Administration in coordination with the Academy, the College of Maritime Transport and Technology awards the following scientific degrees and certificates:

- B.Sc. in Maritime Transport
- B.Sc. in Marine Engineering Technology

College Departments

- Basic Nautical Studies Department
- Maritime Transport Technology Department
- Marine Engineering Technology Department
- Special Courses & Simulators Department
- Information Technology Department
- Leadership Education Department
- Discipline Department
- Physical Education Department
- Maritime Hotel Center

Training and Community Service

- Meteorology and Hydrographic Survey Program
- Diving Program

Accreditation & International Certificates Acknowledgement

The Arab Academy for Science and Technology and Maritime Transport is a fully accredited member of both the Association of Arab Universities and the International Association of Universities.

Central Evaluation and Accreditation Agency

In February 2017, the Central Evaluation and Accreditation Agency (ZEvA) has accredited the bachelor programs of the college, comprising 4 streams in Maritime Transport and 2 streams in Maritime Engineering Technology, for five years. Accordingly, CMTT has become the only maritime institution in the region which offers internationally accredited Bachelor programs in Maritime Transport and Maritime Engineering Technology

International Hydrographic Organization

In March 2017, the International Hydrographic Organization (IHO) has accredited the Hydrographic Surveying program (CAT-B) offered by CMTT.

ISO 9001 Certificate for Educational Processes

The Arab Academy for Science, Technology and Maritime Transport has been awarded the ISO 9001:2008 certificate for its educational processes in September 1999, after following formal quality assurance procedures to maintain the educational quality level received by students.

Standards of Training, Certification and Watchkeeping for Seafarers (STCW)

The adoption of all maritime courses at the Academy and the amendment of certification in accordance with the requirements of the new standards adopted by STCW 1978 and its amendments and the State headquarters ministerial decision.

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European Commission

Both the educational and maritime training systems, and the certification systems adopted by the academy were accredited by the European Commission. Moreover, the recognition of the Academy as an academic nautical institution in accordance with the requirements of the European Union Parliament allows Academy graduates to work on EU vessels.

Approved Center of Marlins Certificates

The International Forum for Maritime Transport (IFMT) under the lead of the Arab Academy for Science, Technology and Maritime Transport (AASTMT) has recently expanded its range of training and services as the one and only approved test center of "Marlins" existing in Egypt & Africa. Marlins is the leading provider of Maritime English Language Testing and Training solutions to the maritime industry.

Agreements & Academic Cooperation

The Arab Academy for Science, Technology and Maritime Transport has signed national and international agreements with a number of universities and organizations in different parts of the world to raise the level of scientific research and student exchange and transfer of expertise.

The following is a list of both national and international cooperation organizations.

	ZEvA, Germany	www.zeva.org
	International Hydrographic Organization	https://www.iho.int
BOURBON	Bourbon Offshore MMI, Dubai UAE	www.bourbonoffshore.com
	Rijeka University, Croatia	www.uniri.hr
	Shanghai Maritime University, China	www.shmtu.edu.cn
ClassNK	Nippon Kaiji Kyokai (ClassNK), UAE	www.classnk.com
WMU	World Maritime University WMU, Sweden	www.wmu.se
IMO	International Maritime Organization (IMO)	www.imo.org
	Aristotle University of Thessaloniki, Greece	www.auth.gr

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	Al-Manar University, Lebanon	www.mut.edu.lb
UASC	United Arab Shipping Company, UAE	www.uasc.net
	Baltic & International Maritime Council	www.bimco.org
WMO	World Meteorological Organization	www.wmo.int
وزارة النقل	Egyptian Authority for Maritime Safety	www.eams.gov.eg
City Unity COLLEGE	City Unity University - Athens, Greece	www.cityu.gr
JICA	Japan International Cooperation Agency	www.jica.go.jp
	Egyptian Meteorological Authority	www.ema.gov.eg
TRANSAS	TRANSAS	www.transas.com/

Academic Regulations

The Credit Hour System

The credit hour system is based on the number of study courses which the student should successfully pass according to the standard set by the Academy as a condition of graduation. This system enables the student to pursue his study according to his capabilities and the guidance of his academic advisor within the minimum and maximum number of study courses the student is allowed to register for in every semester. Thus, the student participates in setting his study plan according to his capabilities and the applied study system. The student shall repeat a course if he does not successfully pass it according to the set standards.

The Credit Hour

The credit hour is a theoretical study hour of 50 minutes per week per semester requiring two hours at least of individualized learning, or two or three applied work hours of 50 minutes each per week per semester requiring one hour at least of individualized learning. The credit hour is the basis of determining the student's study load in every semester. The total of study weeks for each credit hour shall not be less than fifteen weeks per semester.

The Credit Achieved

It is the credit hour achieved in any of the courses the student registered for. It shall be counted to determine the achievement of the student toward graduation.

The Office Hour

It is the hour the lecturer assigns for answering any questions the students may raise in any of the courses taught. It shall be announced to the students and held in the lecturer's office.

The Study Course

It is the course studied in one semester. Each course shall be assigned a number of credit hours and a certain code for each department.

The Prerequisite

It is the study course the student must successfully pass before registering for another course, in the case of which the course shall be considered a prerequisite to the latter course.

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The Academic Load

It is the total credit hours the student is allowed to register for per semester on the basis of his capabilities and academic achievement. The ordinary student shall register for not more than 19 credit hours and not less than 9 credit hours. However, the student who got excellent grade shall be allowed to register for 22 credit hours provided this is recommended by the student's academic advisor and approved by the chairman of the student's department. The student whose grade point average is less than 2 shall not be allowed to register for more than 12 hours.

The Academic Year

The academic year comprises two semesters or more. The duration of the semester is 15 or 16 weeks at the end of which the end of semester examination is held.

The Summer Session

It is an intensive study semester of not less than 6 weeks. Students shall be allowed to register for the summer session according to special rules. The summer session academic load shall not be more than 6 credit hours.

The Phase

It is a period of the total study duration comprising one period or more spent in the Academy or on-board ships according to the student's study plan.

The Educational Path

It is the educational plan the student selects on the basis of his capabilities with a view to achieving his educational objectives. Each specialization comprises a number of educational paths.

Course Grade

It is the grade, e.g., A / B / C etc., the student gets in each course. Each grade represents certain points.

Course Points

The course points the student gets, are calculated in the following way: The value of the course grade the student gets in the course X the number of the course credit hours (as indicated in the assessment method).

Incomplete Course

The department chairman may decide to postpone a student's end of semester examination if recommended by the lecturer of the course, in the case of which the course shall be considered incomplete. In this case, the student shall sit for this an examination in this course during the first week of the following semester, otherwise the student shall be considered withdrawn from the course. However, the course shall be considered incomplete provided the student gets not less than 36 out of 60 in class works and not more than 15% absenteeism. In case of courses extending for two semesters, if a student does not get a grade (as in the case of projects) in the first part of the course, this part shall be considered incomplete until he gets a grade in the final examination of the course at the end of the following semester.

Semester Average

It is the average the student gets at the end of the semester; it is calculated by adding the points the student got from the courses he passed and subdividing them by the total credit hours he registered for in that semester. When calculating the grade point average at the time of graduation, all the F hours are omitted.

Grade Point Average (GPA)

It is the average the student gets by adding the points he got from all the courses he studied till the time of calculating that average and subdividing them by the total credit hours he registered for till that time. The grade point average is calculated at the end of every semester to be used for calculating the general average for any phase and the general average for the end of study for the purpose of determining the student's academic load, continuation of study and probation.

Probation

Probation is affected when the student's grade point average drops down below 2, which requires additional efforts on the part of the student to raise his grade point average to get out of probation.

Study and Assessment Guide

Attendance Evaluation Method

During Study

- Attending lectures is essential and teachers record the daily attendance of students in courses.
- The student is responsible for the lessons and assignments given during the period of his unexcused absence.
- The student will be forced to withdraw from the course if the percentage of his unexcused absence reaches 15% of the number of hours of that course, and 20% if the student's absence was due to imperative circumstances that are left for the teacher and the department concerned to decide whether to accept or reject.

During Guided Sea Training / Planned Sea Training

- The student's assessment during the guided sea training / planned sea training is related to the set attendance and practical applications scores; deductions are issued for non-regularity.
- The student's training period shall be cancelled if his attendance percentage drops down below 90% of the total hours assigned for the training period and he shall get an "F".

Assessment System

During Study

- The student is continuously assessed during the semester through written and practical examinations, discussions, the researches assigned to him, assignments, participation in discussions and regular attendance, in addition to other means of assessment, all of which enable the student to be aware of his academic achievement and take remedial action if necessary.
- The final course assessment is as follows:
  - 30% of the total mark for week 7 assessment.
  - 20% of the total mark for week 12 assessment
  - 10% for semester work
  - 40% for the final examination
- The final examination of any course is held once at the end of the semester. The said examination shall be written or applied depending on the course and shall cover all the course topics. However, in the case of projects, the Department Board shall determine the method of assessment which shall be announced to the students.
- The student shall pass the course if he gets a minimum of 60% of the total marks of the course.
- The educational departments shall declare the result of the assessment twice through the Internet: at the end of week 8 and week 13.

During Guided Sea Training / Planned Sea Training

- **Guided Sea Training**
  - It is considered one of the study semesters of the total study period.
  - A student shall not be allowed to register for the guided sea training period unless he has successfully completed its requirements stipulated by the educational departments.
  - A student shall successfully complete this period if he:
    - Performs all duties and watchkeeping works efficiently and prepares the reports assigned to him.
    - Succeeds in the practical and oral examinations administered at the end of this period with a minimum of GPA 2. A student shall repeat the period, or part of it, if he fails to meet the requirements.The academic committee sets the rules related to this issue.

- **Planned Sea Training**
  - The student's performance during this period is assessed on the basis of the follow-up reports submitted by the shipping companies in charge of training, doing the duties assigned to him, and preparing the required reports, in addition to the oral examination administered at the end of this period to assess the expertise the student gained from that period. In case of not achieving the required standard, the student shall go back to sea for not less than three months to complete his training.

- **The Project**
  - Project preparation is a requirement for graduation
  - Students shall be assigned to supervisors from the staff and from the industry in the student's last two study semesters.
  - External evaluators from the industry are recommended.
  - Assessment of the project shall be done by the evaluation committees assigned by the concerned department.

Grading System

Cadets are graded using a letter-grade system with each letter grade assigned a numerical quality-point equivalent. The percentage and the verbal grade and related quality points equivalents are listed in the following table:

Letter Scale	Quality Point	Verbal Grade	Percentage Equivalent
A+	4.00	Excellent	97% - ≤ 100
A	3.83	Excellent	93% - < 97%
A-	3.67	Excellent-	89% - < 93%
B+	3.33	V. Good+	84% - < 89%
B	3.00	V. Good	80% - < 84%
B-	2.67	V. Good-	76% - < 80%
C+	2.33	Good+	73% - < 76%
C	2.00	Good	70% - < 73%
C-	1.67	Pass	67% - < 70%
D+	1.33	Conditional Pass	64% - < 67%
D	1.00	Conditional Pass	60% - < 64%
F	0.00	Failure Less than	< 60%
I	---	Incomplete	---
W	---	Withdrawal	---

This grading system is applied to all the courses, with the exception of specific courses approved by the standard success set higher than for other courses, or assessed on a pass/fail basis.

The General Grade (Semester Grade/Grade Point Average)

Grade Points	Verbal Grade
From 2.00 To less than 2.60	Pass
From 2.60 To less than 3.00	Good
From 3.00 To less than 3.60	Very Good
From 3.60 And above	Excellent

Conditions of Admission to the Academy

To be admitted to the Academy, a student must meet the following:

- Student shall have good manners and shall have never been indicted for a crime.
- Student shall be a holder of General Certificate of Secondary Education (GCSE) or equivalent (Science) according to the special conditions of each major.
- Student shall meet the minimum admission requirements determined by the Higher Council of Egyptian Universities through the Academy's Education Affairs Council provided they are in agreement with the admission rules determined and shall be medically fit according to the prescribed standard.
- Student shall pledge that he will abide by the Academy's systems and traditions.
- Student shall submit all the documents required for admission.
- Submitting the approval of the delegating authority.
- Student shall pass the admission examinations of the Academy.

The Conditions of Admission to the College of Maritime Transport and Technology
In addition to the foregoing conditions:

- Student shall have obtained not less than 60% of the total scores in the General Certificate of Secondary Education (GCSE) or equivalent.
- Only holders of GCSE (Science) shall be admitted.
- Passing Medical Examination.
- Passing the Academy's English Language Test.
- Passing Physical Fitness Tests.
- Passing Personal Traits Tests.
- Passing Demeanor Test (Personal Interview).

Rules Pertaining to Equivalent Foreign Certificates
International General Certificate of Secondary Education (IGCSE)

- The number of academic years shall not be less than twelve academic years (or the lapse of three years after obtaining the Certificate of Completion of Preparatory Education).
- Student shall have passed the courses qualifying for admission to the College of Maritime Transport and Technology.
    - Successfully passing the compulsory subjects stipulated by the Egyptian Ministry of Education: the Arabic Language, Religion and National Education.
    - The compulsory courses for the English Language or English Literature / Chemistry / Physics / Mathematics and Mathematics (AS)
- Optional Courses: Four courses (O level)
- The required grades for admission to the College of Maritime Transport and Technology: Student shall have passed eight O level courses with a minimum grade of (C).

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American Diploma

- Student shall have passed eight subjects in agreement with the subjects which qualify for each college provided student shall have passed five subjects at least in the 12th class and the rest of the subjects in the 11th class and that the weight of the subject is not less than one credit hour. Student may take some of the eight subjects from the subjects of the 11th class with three subjects as a maximum.
- Passing SAT. 1 exam with a minimum of 1200 scores.

Other Foreign Secondary Education Certificates

International Secondary School Certificate / French Secondary School Certificate / German Apitour / German Commercial Diploma. The numerical evaluation is done according to the evaluation and admission rules of the Academy's Admission and Registration Deanery.

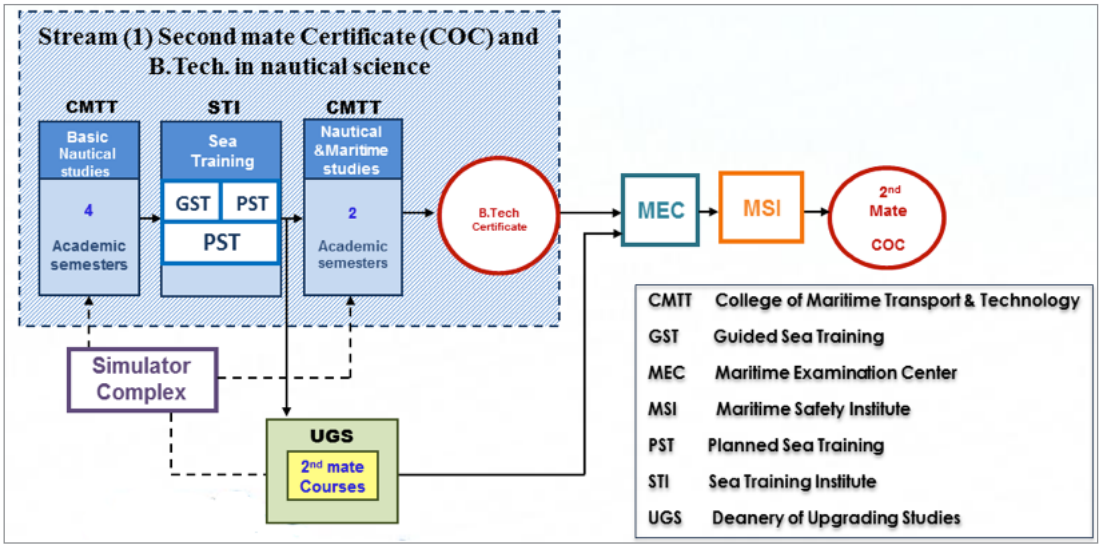
Registration

The Academy's Registration System comprises the following points: registration procedure, the educational load to be registered, omission, addition and withdrawal per course, and repeating course as follows:

Registration takes place after payment of tuition fees. Registering courses begins one week before the beginning of the semester. Registration comprises academic supervision, reviewing the student's academic standing and payment of tuition fees. Schedules are announced before the beginning of the semester. Student must personally undertake registration procedures of his courses under the supervision of his academic supervisor. Student must strictly abide by all the rules stated in the Registration Instruction Brochure issued by the Admission and Registration Deanery at the beginning of each semester. If a student is unable to register on time, he is allowed a late registration period (first week of instruction) provided his excuse is accepted. In this case, he shall pay special registration fees.

Educational Tracks

Nautical Track



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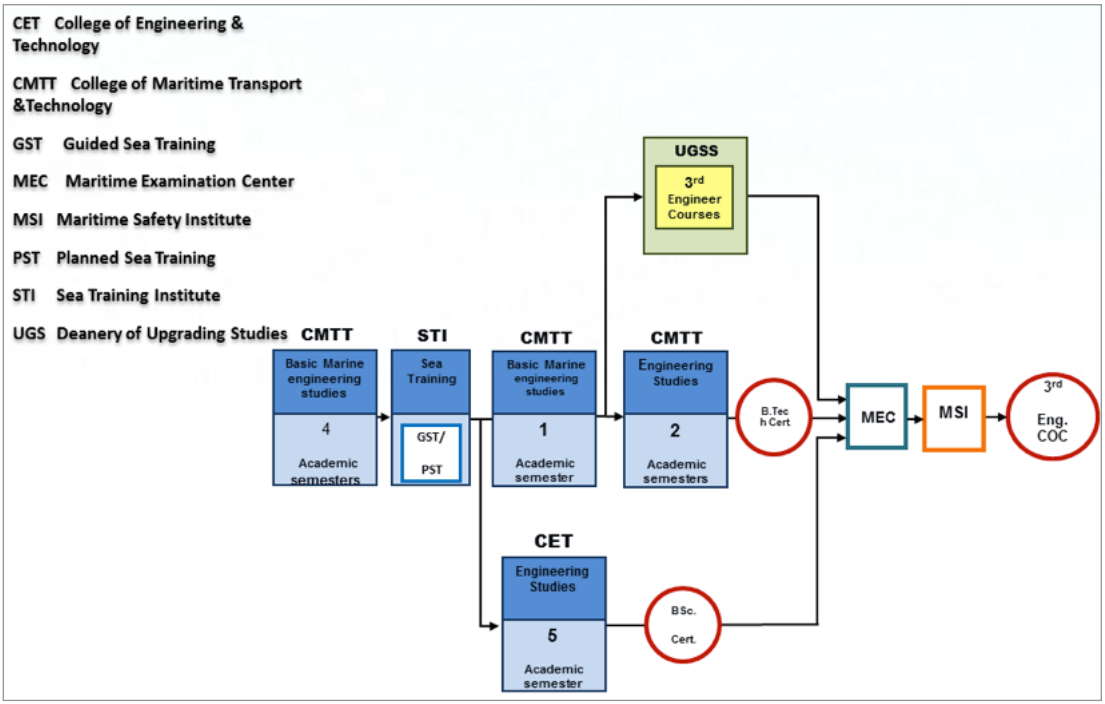
Engineering Track



College Departments

Basic Nautical Studies Department

The Basic Nautical Studies Department is assigned the responsibilities of nautical education, training and upgrading of students through the development of their knowledge, attitudes and skills in order to enable them to work in various fields of maritime transport as deck officers in accordance with the latest trends in international standards of certification and qualification.

Objectives

Providing basic nautical knowledge to students before joining commercial vessels as deck cadets as a preparatory stage for the second mate Certificate of Competence preparations(COC).Training specialized sea personnel to meet the requirements of the maritime Sector in Egypt, the Arab world and Africa. Offering short mandatory courses and other qualifying courses, e.g., Fire-fighting, Survival at Sea, Elementary First Aid, etc. for cadets, seafarers & shore-based personnel.

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Basic Nautical Studies
Academic Program Sheet

First Year			
First Semester		Second Semester	
Code	Course title	Code	Course title
BA 111N	Physics I	BA 112N	Physics II
BA 121N	Mathematics I	BA 122N	Mathematics II
BS 070	General English	BS 112	Marine Safety
BS 111	Seamanship Principles	BS 132	Terrestrial Navigation Part I
BS 121	Ship construction & Marine Engineering	BS 133	Celestial Navigation
BS 131	Introduction to Navigation	BS 142	Computer II
BS 141	Computer I	BS 172	Maritime English II
BS 171	Maritime English I	L 102	Leadership II
L 101	Leadership I	P 102	Physical Education II
P 101	Physical Education I		
Second Year			
Third Semester		Fourth Semester	
Code	Course title	Code	Course title
BS 213	Watchkeeping & Marine Communications	BS 214	Ship Handling and Emergency Proc.
BS 222	Ship Stability	BS 235	Voyage Planning & Weather Routing
BS 234	Terrestrial Navigation Part II	BS 251	Cargo Handling
BS 261	Ship Compasses & Auto Pilot	BS 263	Radar & ARPA
BS 292	Maritime Law & Leadership	BS 274	Technical Report Writing
BS 273	Maritime English III	BS 281	Maritime Meteorology
L 203	Leadership III	BS 262	Navigational Aids
P 203	Physical Education III	L 204	Leadership IV
		P 204	Physical Education IV

Course Summary Description

BA 111N – Physics I – Cr:2
Prerequisite: None

Trainee should have the background to support and understand physical principles underlying the behavior of the ship in its environment and the functioning of its equipment upon which to build in their professional studies. Student will also be able to understand technical specifications and instructions regarding equipment with which they are not familiar. Establishing a scientific base for the student, providing the student with knowledge about the effects of marine environment on ship or charges of ship

BA 112N – Physics II – Cr:2
Prerequisite: BA 111N

Students should have the supporting background and good understanding of physical principles and common phenomena that are related to the marine environment. Also, they should have the cleverness and ability of dealing with different equipment they are using through their sailing. Beside, this course provides them with the ability to search for knowledge throughout many sources available nowadays.

BA 121N – Mathematics I – Cr:2
Prerequisite: None

This course provides the background knowledge of the basic rules of algebra, linear equations and quadratic equations – properties of trigonometric functions and their inverse – Properties and solution of the different types of spherical triangle either Right angle, quadrant or oblique spherical triangle – Rules of differentiation and their applications – Basic rules of integration and their applications.

BA 122N – Mathematics II – Cr:2
Prerequisite: BA 121N

This course provides the background knowledge of how to evaluate the area, the perimeter, the volume and the total surface area for some geometric figures – Coordinates and straight Lines in the plane – General equation of the circle – Conic sections – Proportion, Variation – Linear interpolation – Basic definition of vector algebra –Vector length, unit vector, dot product, parallel and perpendicular vectors , angle between two vectors, cross product.

BS 111 – Seamanship Principles – Cr:3
Prerequisite: None

This course provides the background knowledge which supports:
Ships types & parts – Manning of merchant ships – Ropes & wires – Blocks & tackles – Types & parts of derricks – Anchor & cables – Draft load line & marks – Ship maintenance – Ship steering and helm orders – Duties of the officer of the watch.

BS 112 – Marine Safety – Cr:2
Prerequisite: BS 111

This course covers main topics including fire prevention, control and fighting, Operation of life saving appliances and Applying medical first aid on board ships.

BS 121 – Ship Construction & Marine Engineering – Cr:3
Prerequisite: None

This course provides satisfactory understanding of the following:

- Ship dimensions & form
- Ship stresses - Hull structure - Bow & stern
- Fittings - Rudders & propellers
- Load lines & draught marks

On the other hand, the course provides students with the descriptions of auxiliary machinery, and introduces and classifies the following:

- Heat engine, marine power plants, boilers, marine diesel engines, pumps, steering gears, bilge oilseparators and refrigeration plants.

BS 131 – Introduction to Navigation – Cr:2
Prerequisite: None

This course provides the principles of navigation through good understanding of various definitions related to it. In addition, the course enables the student to determine direction on earth's surface and use various compasses to determine directions as well as the use of position lines to determine position. All of these are performed through understanding nautical charts and chart projection.

BS 132 – Terrestrial Navigation Part I – Cr:2
Prerequisite: BS 131

This course provides satisfactory understanding of the difference between various types of ship tracks and courses through understanding wind and current effect on the vessel's course and position. Moreover, it provides the required knowledge needed for the progress of navigation courses, which will be taught within the next levels (Voyage planning and ECDIS applications).

BS 133 – Celestial Navigation Part I – Cr:3
Prerequisite: BA 121N

This course aims at enabling the student to use celestial bodies to determine the ship's position and compass errors through understanding the celestial sphere and concept of celestial navigation.

BS 141 – Computer I – Cr:2
Prerequisite: None

This course covers the fundamental concepts of the main hardware, software components and communication technology of computer system. It provides students with understanding of how these components are setup and how they function together, in addition to the ability to use word processing.

BS 142 – Computer II – Cr:2
Prerequisite: BS 141

This course requires the candidate to demonstrate ability to use spreadsheets, presentations and database applications.

BS 070 – General English – Cr:0
Prerequisite: None

It is a pre-intermediate English language course, aiming at integrating the four language skills with an emphasis on improving English language proficiency. It includes continued practice in listening, speaking, pronunciation, vocabulary building, grammar, reading, writing and learning strategies. This course is intended to assist students to improve their communication skills.

BS 171 – Maritime English I – Cr:3
Prerequisite: None

Being the starting point of the Maritime English program, this course familiarizes the learner with the nature and usage of Maritime English. Furthermore, the course creates opportunities for the learner to improve his/her communicative competence by simulating nautical experiences in class where the learner is intensively exposed to the language used by seafarers with the ultimate aim of successful communication in the work environment.

BS 172 – Maritime English II – Cr:3
Prerequisite: BS 171

This course enables the students to use the correct maritime terminology as it corresponds to real life situations in their careers. The course also presents the students with the correct vocabulary to give headings and describe routes during voyages to communicate their ships' status effectively and accurately. They are acquainted with the different vocabulary items to be used in the different emergencies and the diverse situations they face at sea.

BS 213 – Watchkeeping & Marine Communication – Cr:3
Prerequisite: BS 112

This course provides basic knowledge of collision avoidance and applications of the rules of the road, identifying buoy systems and explanation of bridge teamwork procedures, plus Introduction to types of pollution prevention. In addition, it provides the basic Knowledge of the International Code of Signals, G.M.D.S.S and signaling Morse Code.

BS 214 – Ship Handling and Emergency Proc. – Cr:3
Prerequisite: BS 213

This course provides background knowledge which supports:

- ❏ Ship behavior, maneuvering, anchoring and mooring.
- ❏ Turning circle and effect of shallow water on ship's maneuverability.
- ❏ Rudder types and their effect on ship's maneuverability.
- ❏ Methods of search and rescue for ships at sea.
- ❏ How to respond to an emergency situation.

BS 222 – Ship Stability – Cr:3
Prerequisite: BS 121

This course provides satisfactory understanding and establishment of the basic information and awareness of ship stability. Moreover, it provides students with the ability and skills to put their vessels under favorable condition of loading and stability, and enables them to assess ship stability condition as a preparatory course for the requirements of STCW 95 and the Model course 7.03: "Officer in Charge of a Navigational Watch".

BS 234 – Terrestrial Navigation Part II – Cr:3
Prerequisite: BS 132

This course enables the student to apply the different mathematical methods of sailing, and how to differentiate between each method. It introduces the different aspects of tide and description of the Admiralty tide tables, provides general information on the use of the different Admiralty publications and their correction/update. It integrates state of the art technology on board modern ships with the coastal navigation concepts through familiarization of and understanding the concept of Electronic Chart Display and Information System (ECDIS) according to IMO model course No. 1.27.

BS 235 – Voyage Planning & Weather Routing – Cr:3
Prerequisite: BS 234

The course provides knowledge and practices in how to perform and conduct a voyage plan on paper chart by using ECDIS with all its aspects (coastal plan, ocean passage including great circle and composite track sailing, rules of the road: rule 10, weather routing and keeping the log).

BS 251 – Cargo Handling – Cr:2
Prerequisite: BS 222

The course provides detailed knowledge to support the training outcomes related to Cargo Handling and derricks operation to support monitoring the loading, stowage, securing and unloading of cargoes and cargo care during the voyage.

BS 261 – Ship Compasses & Auto Pilot – Cr:3
Prerequisite: BA 112N

This course provides the principles of theory of magnetism and the effect of the earth magnetism on the different types of ship iron. It uses different methods to calculate the deviation which is part of the total magnetic compass errors. The theory of operation of the gyroscopic compass and how to convert the free gyroscope to a gyroscopic compass which seeks and maintains the true north, in addition to the correct uses of fluxgate compass, are dealt with. The different methods of controlling, the advantages and limitations of using the automatic pilot and rate of turn indicator are addressed.

BS 262 – Navigational Aids – Cr:3
Prerequisite: BA 112N

This course aims at providing knowledge of the means, types, and operations of position fixing systems including land-based radio navigation systems; Loran-C, e-Loran and space-based radio navigation systems; GPS, GLONASS, Galileo & DGPS. The depth sounding system, speed measurement, and identification system are also covered.

BS 263 – Radar & ARPA – Cr:3
Prerequisite: BA 112N - BS 132

This course provides training in the basic theory and use of radar. The aspects covered include the theory necessary to understand how radar information is obtained and displayed, the limitations and accuracy of that information, and the correct use of operational controls. The various modes of display and the choice of suitable mode for a particular application are also covered, together with the effect those changes in the course and speed of own ship or target ship have on the appearance of the display. The course also covers the measurement of bearings and distances, and the use of these for fixing the ship's position and maintaining a plot of the movement of other ships as an aid to collision avoidance. As regards ARPA, this section of the course provides knowledge and training in the basic theory of operation and use of ARPA system.

BS 273 – Maritime English III – Cr:3
Prerequisite: BS 172

This course introduces students to relatively advanced Maritime English (ME) reading, audio and video materials to further develop their skills in understanding and using ME effectively. It includes major structural and lexical components to facilitate correct communication in a ME environment. Opportunities for effective oral communication are provided in the classroom by introducing authentic life-like situations to enhance students' communicative skills using Standard Maritime Communication Phrases in accordance with the Manila amendments of the STCW convention of 1978/95. The course also includes a writing component to enable students to write short essays on relevant Maritime topics.

BS 274 – Technical Report Writing – Cr:2
Prerequisite: BS 273

This course provides the principles of writing technical reports through understanding the writing techniques. In addition, the course qualifies learners to master the strategies of professionally filling in maritime reports, field related documentation and paper work used by seafarers with the ultimate aim of professional communication in the work environment.

BS 281 – Maritime Meteorology – Cr:2
Prerequisite: None

This course provides the background knowledge and principles of maritime meteorology, composition, nature & processes of the atmosphere – atmospheric pressure & pressure systems – wind & air masses – meteorological instruments & observations – weather associated with synoptic system.

BS 292 – Maritime Law & Leadership – Cr:3
Prerequisite: None

This syllabus covers the requirements of STCW Manila 2010 amendments.
The student must know - with no details about introduction of the Maritime law – the Law of the Sea, and some IMO conventions such as: SOLAS 74, Load Line 1966, STCW 1995, PAL 1974, Tonnage 1969, BWM 2004, ANTI-FOULING 2001, and MARPOL 74/78.

To support the training outcomes related to controlling the operation of the ship and care of persons on board at the operational level, the following points are addressed:

- Developing the management skills of the trainees.
- clarifying leadership theories.
- highlighting leadership characters and marine human resources management including a multinational crew

L 101 – Leadership I – Cr:0.5
Prerequisite: None

L 102 – Leadership II – Cr:0.5
Prerequisite: L 101

L 203 – Leadership III – Cr:0.5
Prerequisite: L 102

L 204 – Leadership IV – Cr:0.5
Prerequisite: L 203

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The program has been meticulously developed taking into account being objective to form the student's independent character, guide and train him to take responsibility and participate in decision-making as well as taking into account the demographic aspects of the student in terms of customs and traditions, social and psychological factors.

P 101 – Physical Education I – Cr:0.5
Prerequisite: None

- Training in running continuously for 30 minutes to let students acquire (periodic respiratory endurance).
- Exercises on the sand to let students acquire (load-bearing capacity)
- Students should learn how to create harmony with this new environment (water) and how to walk on the swimming pool floor to avoid slipping.
- Students should learn how to see and breathe properly in the water "inhale and exhale".
- Students should learn how to float from the still position and how their legs should hit the water in freestyle swimming.
- Football: training students to (pass the ball - receive the ball - run with the ball - aim at the goal)

P 102 – Physical Education II – Cr:0.5
Prerequisite: P 101

- Training students in weight-lifting to improve their load-bearing capacity.
- Students should learn how to move their arms in freestyle swimming.
- Students should learn the compatibility between the movement of their legs and their arms in freestyle swimming.
- Students should learn to regulate the movement of their arms and legs with their breathing in freestyle swimming.
- The student learns how to swim properly for a distance of 50 meters.
- Basketball: train the student to (pass the ball - receive the ball - run with the ball - the types of throws)

P 203 – Physical Education III – Cr:0.5
Prerequisite: P 102

- Raising physical fitness levels to improve two factors (speed bearing / distinguished strength in speed).
- Improving students' freestyle swimming performance.
- Students should learn to float in deep water for a relatively long period of time.
- Students should learn how to move their legs and hit the water to do the backstroke.
- Students should learn how to move their arms and hit the water to do the backstroke.
- Volleyball: students are trained to (pass the ball - receive the ball(trap) - perform the reverse swing and crushing blows).
- Acquiring basic karate skills (long straight punch - vertical punch - vertical fist punch-defense from the outside to the inside).

P 204 – Physical Education IV – Cr:0.5
Prerequisite: P 203

- Training for a higher fitness level to develop special skills (speed/strength).
- Improving students' freestyle swimming performance is one of the main considerations.
- Increasing students' ability to stay still in deep water (floating) after swimming for a distance of 50 meters.
- Students should learn the compatibility between the movements of the arms and legs to do the backstroke and to swim for a distance of 50 meters properly.
- Ball (football - basketball- volleyball) Integrating all the skills that have been honed in the previous courses through organizing mini matches and games between classes.
- Acquiring basic karate skills (reverse punch - round kick - defense from the outside to the inside - spear hand strike).

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Maritime Transport Technology Department

The Maritime Transport Technology Department is assigned the responsibilities of meeting the diversity and growth of Nautical and Maritime Transportation Industry. It educates, trains and upgrades students through the development of their knowledge, attitudes and skills in order to enable them to work in various fields of Maritime Transport sector either as deck officers or in Maritime Management assignments in accordance with the latest trends in International Standards of Certification and Qualification.

Objectives

The Maritime Transport Technology Department aims at preparing its graduates for the contemporary challenges faced by the transport sector. As such, it enables the people involved in the transport sector to upgrade their technical knowledge and abilities through special courses, combined with general management training. It Qualifies the students to obtain B. Sc. Degree in Maritime Transport (Nautical Technology, Offshore Operations Technology, Maritime Safety and Environmental Protection, Shipping and Port Operations), to work in the various fields of Maritime Transport and Management, e.g., Marine Inspectors, Maritime Experts, Oil Pollution Control Specialists, Container & Multipurpose Terminal Managers & Operators, Port Planners and Administrators, Port Traffic Officers, Port Pilots, Marine Experts and Consultants, Cargo Inspectors and Draft Surveyors.

B.Sc. In Maritime Transport (Offshore Operations Technology)

The global offshore oil and gas industry has been growing by leaps and bounds. Offshore vessels are designed to perform a wide range of tasks associated with the offshore explorations and exploitation of oil and gas. They are the main means of transportation to carry equipment, goods and personnel to offshore platforms that operate deep in oceans.

In this context, the aim of this program is to supply the oil and gas maritime industry with officers who have the qualified knowledge required for enhancing the offshore industry and are capable of carrying out special types of offshore industry jobs by managing, handling, maintaining and supervising special types of vessels that are designed for offshore industry.

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B.Sc. In Maritime Transport (Shipping and Port Operations)

This stream aims at equipping students for a variety of maritime business careers, giving a special advantage to those wishing to enter the Shipping and port business. To this end, it offers a balanced educational program in accordance with the general philosophy of the 21st century, and the dynamic fields of shipping and port business. Students are given a general but solid introduction into the exciting world of shipping and sea ports. Students are faced with the problems of the maritime industry while, at the same time, the endless opportunities for solutions. World shipping and its developments are tackled and comparative studies of different countries are conducted.

B.Sc. In Maritime Transport (Maritime Safety and Environmental Protection)

This stream has been designed for students who will serve in public or private maritime organizations as advisers in maritime safety, occupational health and security as well as marine environmental and management principles issues. This course provides comprehensive understanding of maritime administration issues and expertise in essential management tools required by such senior maritime personnel to implement safety, security and environmental protection standards in maritime administrations or shipping companies.

B.Sc. In Maritime Transport (Maritime Technology)

Nautical Sciences cadets are trained seafarers capable of using technological and navigational equipment on a wide range of ships. The aim of this program is to enable cadets to be well educated and trained based on seamanship and traditional maritime skills in areas such as officer of the watch training, marine communications and navigation, rescue, safety and environmental response, security threat response and vigilance and safe carriage of goods. However, There is a growing need for competent and educated leaders, both onboard ships and in onshore organizations. With this B.Sc. program in Nautical Technology, students will get the opportunity to be trained to get an important role as future leaders who can guide the shipping industry into a new era faced with demands for effective maritime transport solution and strict quality demands.

Academic Program Sheet

B.Sc. In Maritime Transport (Offshore Operations Technology)

First Year	
First Semester	Second Semester
Second Year	
Third Semester	Fourth Semester
Complete Basic Nautical Studies	

Third Year			
Fifth Semester		Sixth Semester	
Code	Course title	Code	Course title
L305	Leadership V	L306	Leadership VI
TI315	Practical Seamanship	TI317	Applied Ship Maneuvering and Emergency Procedures
TI316	Practical Ship Operation & Personal Care on Board	TI318	Practical Safety & Environmental Protection
TI336	Practical Navigation	TI337	Practical Passage Plan
TI352	Operative Cargo Handling & Stowage	TI353	Applied Cargo Handling & Securing
TI364	Operative Electronic Navigation Systems	TI365	Practical Electronic Navigational Aids

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Fourth Year			
Seventh Semester		Eighth Semester	
Code	Course title	Code	Course title
OS4++	5 Elective Courses	OS4++	3 Elective Courses
NS400	Research Methodology & Statistics	NS419	Seamanship
NS417	Maritime Safety & Environmental Protection	NS423	Ship Construction & Stability
NS436	Integrated Navigation System	NS438	Terrestrial Navigation (3)
Elective Courses		NS439	Celestial Navigation (2)
OS410	Offshore Operations	NS456	Cargo Handling & Stowage
OS413	Offshore Engineering	NS401	Project
OS414	Offshore Units & Handling	Elective Courses	
OS417	SAR & Salvage Operations	OS411	Offshore Risk Assessment
OS454	Liquid Cargo	OS412	Rigs and Platform Safety
OS455	Offshore Cargo Handling	OS416	Advanced Offshore Operations
		OS478	Safety Management Systems

B.Sc. In Maritime Transport (Shipping and Port Operations)

First Year	
First Semester	Second Semester
Second Year	
Third Semester	Fourth Semester
Complete Basic Nautical Studies	

Third Year			
Fifth Semester		Sixth Semester	
Code	Course title	Code	Course title
L305	Leadership V	L306	Leadership VI
TI315	Practical Seamanship	TI317	Applied Ship Maneuvering and Emergency Procedures
TI316	Practical Ship Operation & Personal Care on Board	TI318	Practical Safety & Environmental Protection
TI336	Practical Navigation	TI337	Practical Passage Plan
TI352	Operative Cargo Handling & Stowage	TI353	Applied Cargo Handling & Securing
TI364	Operative Electronic Navigation Systems	TI365	Practical Electronic Navigational Aids

College of Maritime Transport &Technology - CMTT

Fourth Year			
Seventh Semester		Eighth Semester	
Code	Course title	Code	Course title
SP4++	5 Elective Courses	SP4++	3 Elective Courses
NS400	Research Methodology & Statistics	NS419	Seamanship
NS417	Maritime Safety & Environmental Protection	NS423	Ship Construction & Stability
NS436	Integrated Navigation System	NS438	Terrestrial Navigation (3)
Elective Courses		NS439	Celestial Navigation (2)
SP452	Accounting & Investment	NS456	Cargo Handling & Stowage
SP471	Maritime Economics	NS401	Project
SP473	Port Management & Operations	Elective Courses	
SP494	Commercial Maritime Law	SP402	Human Resources Management
SP495	Quality Assurance System	SP472	Maritime Port Economics
SP497	Shipping Management	SP493	Maritime Logistics & Marketing
		SP496	Maritime Environmental Management

B.Sc. In Maritime Transport (Maritime Safety and Environmental Protection)

First Year	
First Semester	Second Semester
Second Year	
Third Semester	Fourth Semester
Complete Basic Nautical Studies	

Third Year			
Fifth Semester		Sixth Semester	
Code	Course title	Code	Course title
L305	Leadership V	L306	Leadership VI
TI315	Practical Seamanship	TI317	Applied Ship Maneuvering and Emergency Procedures
TI316	Practical Ship Operation & Personal Care on Board	TI318	Practical Safety & Environmental Protection
TI336	Practical Navigation	TI337	Practical Passage Plan
TI352	Operative Cargo Handling & Stowage	TI353	Applied Cargo Handling & Securing
TI364	Operative Electronic Navigation Systems	TI365	Practical Electronic Navigational Aids

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Fourth Year			
Seventh Semester		Eighth Semester	
Code	Course title	Code	Course title
SE 4++	5 Elective Courses	SE 4++	3 Elective Courses
NS 400	Research Methodology & Statistics	NS 419	Seamanship
NS 417	Maritime Safety & Environmental Protection	NS 423	Ship Construction & Stability
NS 436	Integrated Navigation System	NS 438	Terrestrial Navigation (3)
Elective Courses		NS 439	Celestial Navigation (2)
SE 412	IMO Instruments	NS 456	Cargo Handling & Stowage
SE 419	Survey of Non- Convention Ships	NS401	Project
SE 420	Maritime Casualty Investigation	Elective Courses	
SE 422	SAR Organization & Management	SE 401	Int. Marine Environmental Law
SE 495	Quality Assurance Systems	SE 402	Human Factor in Maritime Safety
SE 496	Crisis Management & Contingency Plan	SE 414	Ship Certification & Classification Society
		SE 424	Marine Survey & Inspections

B.Sc. In Maritime Transport (Maritime Technology)

First Year	
First Semester	Second Semester
Second Year	
Third Semester	Fourth Semester
Complete Basic Nautical Studies	

Third Year			
Fifth Semester		Sixth Semester	
Code	Course title	Code	Course title
L305	Leadership V	L306	Leadership VI
TI315	Practical Seamanship	TI317	Applied Ship Maneuvering and Emergency Procedures
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Fourth Year			
Seventh Semester		Eighth Semester	
Code	Course title	Code	Course title
	5 Elective Courses	SP4++	3 ElectiveCourses
NS400	Research Methodology & Statistics	NS419	Seamanship
NS417	Maritime Safety & Environmental Protection	NS423	Ship Construction & Stability
NS436	Integrated Navigation System	NS438	Terrestrial Navigation (3)
Elective Courses		NS439	Celestial Navigation (2)
OS410	Offshore Operations	NS456	Cargo Handling & Stowage
OS454	Liquid Cargo	NS401	Project
SE495	Quality Assurance Systems	Elective Courses	
SE496	Crisis Management & Contingency Plan	SP 493	Maritime Logistics & Marketing
SP471	Maritime Economics	SP494	Commercial Maritime Law
SP473	Port Management & Operation	SP496	Maritime Environmental Management
		SP497	Shipping Management

Course Summary Description

L 305 – Leadership V – Cr:1
Prerequisite: BS 235 – BS 214

L 306 – Leadership VI – Cr:1
Prerequisite: S 305

The program has been meticulously developed taking into account being objective to form the student's independent character, guide and train him to take responsibility and participate in decision-making as well as taking into account the demographic aspects of the student in terms of customs and traditions, social and psychological factors.

TI 315 – Practical Seamanship – Cr:3
Prerequisite: BS 235 – BS 214

The course provides training in use of ropes and wires, blocks and tackles, recognizing the types of derricks, dropping the anchor and its cable, reading load line marks and ship's draft, doing ships maintenance, in addition to training in steering helm orders and doing the duties of the officer of the watch.

TI 316 – Practical Ship Operation & Personal Care on Board – Cr:3
Prerequisite: S 305

The course enables the student to use and identify the survival crafts on-board ship, understand safety information such as signs and alarm signals, apply the international regulations for preventing oil pollution, and distinguish between different types of environmental protection issues as mentioned in MARPOL Protocol.

TI 317– Applied Ship Maneuvering and Emergency Procedures– Cr:3
Prerequisite: S 305

The course enables the student to recognize ship behavior: maneuvering, turning circle and effect of shallow water on ship's maneuverability, beside rudder types and their effect on ship maneuverability, in addition to training in responding to an emergency situation such as fire, man overboard, collision, etc.

TI 318 – Practical Safety & Environmental Protection – Cr:3
Prerequisite: S 305

The course enables the student to organize Muster List and demonstrate ability to act with the fire-fighting plan using the fire and watertight doors. The course also covers safety meetings and how to take immediate action upon encountering an accident on-board.

TI 336 – Practical Navigation – Cr:3
Prerequisite: BS 235 – BS 214

The course aims at enabling the student to recognize types of fixing methods, bearings, types of ship tracks and courses, in addition to using celestial bodies to determine ship position and compasses error, beside understanding the methods of fixing using celestial sphere.

TI 337 – Practical Passage Plan – Cr:3
Prerequisite: S 305

The course enables the student to be competent to carry out voyage planning (Coastal and Ocean), and use Admiralty Publications in voyage planning, in addition to weather routing as required by the latest STCW 78 Convention and its Code, Chapter II, Section/table A II/1, as amended.

TI 352 – Operative Cargo Handling & Stowage – Cr:3
Prerequisite: BS 235 – BS 214

The course trains the student in recognizing and identifying the different merchant ships with respect to types and characteristics, in addition to ship parts. It also trains the students in calculation of cargo holds capacity and net spaces and applying stability calculation of trim, list and full, light displacements of the ship in different voyages.

TI 353 – Applied Cargo Handling & Securing – Cr:3
Prerequisite: S 305

The course trains the students in acquiring knowledge of the requirements of STCW 78, as amended, of the preparation & inspection of holds and reporting defects and damage to cargo and cargo spaces. It also covers the following items: operating ship's derricks, the principles of cargo stowage and securing, different types of dry cargo, including dangerous goods, and how to establish and maintain effective communication during cargo handling.

TI 364 – Operative Electronic Navigation Systems – Cr:3
Prerequisite: BS 235 – BS 214

The course provides training in enabling the student to apply different methods to calculate elevation and use the magnetic gyro compass, in addition to presenting the different types of operations of position fixing systems, and space–based radio navigation systems, beside the correct use of radar to change ship courses, speed and fixing the ship position.

TI 365 – Practical Electronic Navigational Aids – Cr:3
Prerequisite: S 305

The course enables the student to understand the functional elements to use of electronic navigation equipment at the operational level. It also provides comprehensive description of Satellite Navigation Systems and detailed information about the GPS signal by which GPS obtains position, velocity and time to present current information about the status, plans, schedule and capabilities for GPS.

NS 400 – Research Methodology & Statistics – Cr:3
Prerequisite: None

This course provides the principles of research methodology and skills. It identifies the basic research concepts; introduces research methods; and defines the different stages of producing a research project. It also aims at finding a solution to some problems, such as pollution, marine accidents and others. The procedure used depends on collection and analysis of data about the problem. The data are analyzed in such a manner so as to find some measures and parameters to enable us to find a suitable solution to the problem. However, before applying the solution, we must make hypothesis testing.

NS 417 – Maritime Safety & Environmental Protection – Cr:2
Prerequisite: None

This course provides candidates with essential information about maritime safety and pollution prevention, specially the information included in the mandatory minimum requirements for knowledge, understanding and proficiency of seamanship techniques in accordance with the lately amended Standards of Training, Certification and Watchkeeping Convention (STCW)1995 and the International Maritime Organization (IMO) mandatory courses in Proficiency in Personal Survival Techniques, Advanced Firefighting, First Aid, Personal Safety and Social Responsibilities, and Environment Protection.

NS 419 – Seamanship – Cr:2
Prerequisite: S 306

This course provides the background knowledge necessary to support:

- The ability and skills of maintaining a safe navigational watch.
- The knowledge, understanding and proficiency necessary to respond to emergencies.
- The basic principles of responding to a distress signal at sea.
- The sense, skills and capability used in ship maneuvering and handling.

NS 423 – Ship Construction & Stability – Cr:2
Prerequisite: S 306

This course provides students with knowledge of ship stability and enables them to deal with ship stability data and hydrostatic particulars through understanding ship construction and the stresses affecting the ship.

NS 436 – Integrated Navigation System – Cr:3
Prerequisite: BS 263 – BS 235 – BS 262

The course enables the students to operate ECDIS equipment and use the navigational functions of ECDIS while being integrated with other equipment as per the requirements of IMO model course No. 1.27. In addition, Students will be able to select and asses all relevant information and take the proper action as per the requirements of the amended STCW 78 Convention and its Code, Chapter II, Section A-II/1.

NS 438 – Terrestrial Navigation (3) – Cr:2
Prerequisite: S 306

This course provides a general revision of all navigational tasks with advanced concepts to enable the students to sit for the 2nd mate examination.

NS 439 – Celestial Navigation (2) – Cr:2
Prerequisite: S 306

This course provides navigational knowledge in addition to a general revision of all celestial navigational tasks with advanced concepts to enable the students to sit for the 2nd mate examination.

NS 456 – Cargo Handling & Stowage – Cr:2
Prerequisite: S 306

The course provides detailed knowledge to support the training outcomes related to Cargo Handling and Stowage at the operational level and to support monitoring the loading, stowage, securing and unloading of cargoes and their care during the voyage.

OS 410 – Offshore Operations – Cr:2
Prerequisite: None

This course presents the operations carried out in the oil services industry which are carried out by supply vessels, such as the supply of materials used for drilling in platforms, anchor handling operations, towing operations, diving operations and seismic operations.

OS 411 – Offshore Risk Assessment – Cr:2
Prerequisite: None

Offshore operations involve high risks to safety of persons and the environment, so risk assessment is essential to improve safety for persons and the environment. The course addresses where risks in each process are expected and how to overcome them.

OS 412 – Rigs and Platform Safety – Cr:2
Prerequisite: None

The course is designed to cover the standard of safety equipment and safety culture for human element on oil rigs and platforms and what are the sources of regulation to be followed. It covers the hazards of operations carried out onboard installations and cases of emergency that might happen. The course also covers the prevention of gas and oil leakage and the way of controlling such things through case studies.

OS 413 – Offshore Engineering – Cr:2
Prerequisite: None

This course describes the types of vessels operating in the offshore industry in terms of design and equipment of offshore units to help them carry out their tasks safely. It also describes the platforms and rigs which the offshore vessels supply with their needs and tow them from one location to another.

OS 414 – Offshore Units & Handling – Cr:2
Prerequisite: None

This course describes the types of vessels operating in the offshore industry in terms of design and equipment of offshore units to help them carry out their tasks safely. It also describes the platforms and rigs which the offshore vessels supply with their needs and tow them from one location to another.

OS 416 – Advanced Offshore Operations – Cr:2
Prerequisite: OS 410

This course presents the operations carried out in the oil services industry which are carried out by supply vessels to and from the platforms, such as the supply of materials which are used for drilling, anchor handling operations, towing operations, diving operations and seismic operations.

OS 417 – SAR & Salvage Operations – Cr:2
Prerequisite: None

This course reviews maneuvers of own supply ships during loading and unloading operations in platforms and also in anchor handling and towage operations. It also covers search and rescue operations according to the requirements of the International Convention on Maritime Search and Rescue 1979.

OS 454 – Liquid Cargo – Cr:2
Prerequisite: BS 251

The course enables the participants to assume the duties and responsibilities related to loading, discharging and transfer of liquid cargo and operation of liquid cargo equipment.

OS 455 – Offshore Cargo Handling – Cr:2
Prerequisite: None

This course reviews the types of cargo that are shipped on supply vessels, as well as how to handle this cargo and how to transfer it from the port to platforms .

OS 478 – Safety Management Systems – Cr:2
Prerequisite: None

This course reviews Marine Health, Safety, Quality and Environmental Management, the objective of which is to assist ship-owners and operators to improve safety and environmental protection in the management and operation of ships.

SE 401 – Int. Marine Environmental Law – Cr:2
Prerequisite: None

The course provides the students with a clear understanding of the international legal framework for the law of the sea, including the regimes of maritime zones under the UN Convention of the Law of the Sea (UNCLOS) from the perspective of maritime administrations and their particular interests.

SE 402 – Human Factor in Maritime Safety – Cr:2
Prerequisite: None

The course describes the effect of the human factor (Ergonomics) on maritime safety through full understanding of the human factor and the difference between the human factor, the human element and human error. In addition, it classifies the types of errors and accidents related to the human factor and stresses the danger of the fatigue phenomenon and the importance of crew endurance management, as well as the concept of safety culture in improving maritime safety, including various applications.

SE 412 – IMO Instruments – Cr:2
Prerequisite: None

The course enables the students to have full knowledge of IMO main Bodies and Committees, Convention & Codes and the importance of each Convention to the maritime industry. It also addresses the Regulations and Resolutions issued by IMO to update the existing Conventions.

SE 414 – Ship Certification & Classification Society – Cr:2
Prerequisite: None

The course enables the students to understand the difference between certification and documents applied to merchant ships and the relationship of applying that to IMO Conventions and Codes. In addition, the course addresses understanding the role of the classification society and the importance of its delegation on behalf of the maritime Administration.

SE 419 – Survey of Non-Convention Ships – Cr:2
Prerequisite: None

The course enables the students to understand the different ways of survey practices related to non-convention vessels, and how to apply the requirements and recommendations developed by IMO, FAO, ILO and Classification Societies as well as by National Organizations.

SE 420 – Maritime Casualty Investigation – Cr:2
Prerequisite: None

The course enables the students to understand the meaning of marine accident and the difference between the human element, the human factor and the human error. The course addresses the different investigation models and how to write down an investigation report.

SE 422 – SAR Organization & Management – Cr:2
Prerequisite: None

The course enables the students to understand the main idea of search and rescue, and how to develop a plan to establish and enhance search and rescue centres within the constraints and requirements for establishing these centres. It also addresses the importance of establishing effective co-operation with neighboring States in accordance with the provisions of SAR- Convention.

SE 424 – Marine Survey & Inspections – Cr:2
Prerequisite: None

The course enables the students to understand the difference between survey and inspection. Identify all items carried out by each survey or inspection related to the IMO convections, and how to deal with the facts which may appear in any survey or inspection, in addition to writing the full report after any survey or inspection.

SE 495 – Quality Assurance Systems – Cr:2
Prerequisite: None

The course enables the students to understand the basic quality control concept & framework, beside the legal framework of quality management implementation especially ISO 14000, Environmental Management, ISO 31000, and Risk Management. In addition, the course helps students understand the importance of ISM Code application on-board ships

SE 496 – Crisis Management & Contingency Plan – Cr:2
Prerequisite: None

Given the nature of maritime transport, some accidents may present large-scale threats to the safety of life, property and the environment, resulting in serious consequences. To minimize such an impact, crisis management schemes and contingency plans must be in place. The course objective is to familiarize the students with the basic applied crisis management including contingency planning and Search and Rescue at sea.

SP 402 – Human Resources Management – Cr:2
Prerequisite: None

The course enables the student to understand the importance of human resources management as a vital aspect to the financial health and productivity of an organization. This important management function provides the link between the management and employees in an organization as employees are considered the most valuable asset of an organization.

SP 452 – Accounting & Investment – Cr:2
Prerequisite: None

This course addresses Accounting and Finance and their use in business situations by operational managers in the maritime industry. Students will gain an understanding of the basic principles of accounting and finance. Students will apply their knowledge to the real world of shipping and ports. Financial statement analysis, internal control, inventory control and metrics, currency valuations, organizational and capital budgeting, internal cost allocations, methods of controlling geographically and organizationally diverse business units, financial ratios, working capital management, debt and equity financing, and other accounting and finance concepts will be addressed. The course will include lectures, case studies, and financial analysis projects.

SP 471 – Maritime Economics – Cr:2
Prerequisite: None

This subject emphasizes the application of economic principles to the maritime transport sector. Economic explanations and analyses are made of the new characteristics of modern maritime transport. A comprehensive economic review is given of all major aspects of shipping, ports, and other related sectors from the demand and supply view point. Discussions will focus on the key issues of maritime transport, such as the impact of economic development and trade on maritime transport, influential factors on ship demand and supply, the role of ports and maritime transport auxiliaries, shipping cost analyses, freight evolution and prediction, and the economics of maritime safety and environmental protection.

SP 472 – Maritime Port Economics – Cr:2
Prerequisite: None

This course provides students with theoretical and applied knowledge of seaports from an economic and management perspective. A seaport is a collection of different but related economic activities. Consequently, there is no single unit of analysis in port studies. Examples of relevant units of analysis in port studies are transport companies, the port authority and a container terminal operator. In this module we focus on ports as an element in international supply chains and the locations of three economic activities, namely cargo transfer, (petro-) chemical industry, and logistics. One of the most important determinants of a port is its location in transport networks and the hinterland it serves. Beside the location of ports, port competition, port competiveness and the performance of ports are relevant issues. Next to these issues special attention is given to the role of the port authority and its activities.

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SP 473 – Port Management & Operations – Cr:2 Prerequisite: None

This course examines the roles of ports in international logistics and provides an in-depth study of transport terminals and their operations including terminals for ocean container; bulk; break-bulk and inland water. This program overviews both overall ports' activities and maritime transport. It allows students to see how ports activities fit within and affects the entire spectrum of operational and commercial activities running in the complex interface of maritime transport. The program defines ports, their constantly changing and developing functions, and their operations. It introduces key concepts, analyses of various types of ports, their evolution, and the impact left by ship technology.

SP 493 – Maritime Logistics & Marketing – Cr: 2 Prerequisite: None

The shipping & port marketing course provides a comprehensive understanding of the fundamentals needed to build a clear vision of the tactics and strategies, marketing tools and practices aimed at capturing new customers, building customer loyalty, providing superior customer service, developing new products, improving profitability and conducting market research in the shipping & port industry

SP 494 – Commercial Maritime Law – Cr:2 Prerequisite: None

This course aims at giving persons at the operational level the knowledge and understanding of commercial maritime law and the nature and types of marine legal relations, how to conclude contracts and how to settle merchant marine disputes.

SP 495 – Quality Assurance System – Cr:2 Prerequisite: None

This course provides the background knowledge necessary to support the overall knowledge of Quality Assurance System

SP 496 – Maritime Environmental Management – Cr:2 Prerequisite: None

The course introduces students to the requirements for the safe management of the Maritime environment. The course introduces major environmental problems and identifies the major threats to the maritime environment. It provides a working knowledge of these threats and considers the possible counter measures that may be employed by employees in the maritime industry.

SP 497 – Shipping Management – Cr:2
Prerequisite: None

This program provides the students with knowledge about a globalized industry and enables them to understand how shipping is an integrated and important part of the supply chain. They will learn the basics of the shipping market, combination of transport modes and the environmental issues related to shipping. Students will understand the shipping industry and its various segments. Students will know the basics of maritime legislation and the contractual framework of international shipping, and the potential legal liabilities in connection with owning and operating a vessel for the different stakeholders. They should be able to explain all transportation modes, know how to operate a port and understand how international logistics work.

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Marine Engineering Technology Department

The roots of the Marine Engineering Technology Department extend back to the date of the establishment of AMTA in 1972, when the Marine Engineering Technology Department started to offer a two-year program of basic studies for engineering cadets as well as some upgrading courses for marine engineers.
Due to the technological advances and developments in the Maritime Transport Industry and the subsequent need for enhancing the technical expertise of engineers working on-board ships, the program of study in the Marine Engineering Technology Department has been reviewed and updated to offer the following programs:

- Marine Engineering Technology program in conjunction with Third Marine Engineer COC.
- Marine Electrical Technology program in conjunction with Electro Technical Officer COC.

The programs are delivered in compliance with the strategy of the Arab Academy for Science, Technology and Maritime Transport (AASTMT) of offering distinguished programs in maritime transport and related fields.

Top-quality Maritime Education and Training (MET) courses are delivered in these programs by highly-qualified faculty using top-notch resources, combining up-to-date knowledge, skills, workshops, simulators and equipment. The programs fulfill the requirements of the STCW Convention, as amended in 2010, and aim at qualifying high quality graduates capable of competing in the maritime market.

Objectives

- Educating and training the marine engineering cadets in compliance with the national and international regulations to become marine engineers.
- Qualifying the students to obtain B. Tech. in Marine Engineering Technology in conjunction with Third Marine Engineer COC or B.Tech in Marine Electrical Technology in conjunction with Electro Technical Officer COC
- Offering preparatory courses for sea-going engineers to enable them to sit for the competency certificates examinations in accordance with STCW amended in Manila 2010.

Academic Program Sheet

Marine Engineering Technology Program

First Year			
First Semester		Second Semester	
Code	Course title	Code	Course title
LH 131T	ESP I	LH 132T	ESP II
BA 123	Mathematics I	BA 124	Mathematics II
BA 113	Physics I	BA 114	Physics II
CC 111	Introduction to Computer	CC 114	Introduction to Programming
ME 151T	Eng. Drawing and Projection	IM 112T	Manufacturing Technology
BA 141	Engineering Mechanics I	BA 142	Engineering Mechanics II
MT 112T	Marine Safety	BA 118	Chemistry
P 101	Physical Education I	P 102	Physical Education II
D 101	Leadership I	D 102	Leadership II
Second Year			
Third Semester		Fourth Semester	
Code	Course title	Code	Course title
LH 231T	ESP III	BA 224	Mathematics IV
BA 223	Mathematics III	IM 212T	Manufacturing Processes I
ME 252T	Mechanical Engineering Drawing	EE 218	Instrumentation & Measurements
ME 274T	Materials Science	MM 221T	Marine Diesel Engines I
EE 239	Electrical Eng. Fundamentals for Marine	MM 241T	Naval Architecture & Ship Construction
ME 231T	Thermodynamics	MM 211T	Marine Engineering I
P 203	Physical Education III	P 204	Physical Education IV
D 203	Leadership III	D 204	Leadership IV

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Third Year			
Fifth Semester		Sixth Semester	
Code	Course title	Code	Course title
S 400	Guided Sea Training (AIDA IV)	NM 291T	Maritime Law
Or		MM 423T	Marine Diesel Engines III
S 400*	Planned Sea Training	ME 362T	Hydraulics
		ME 431T	Heat Transfer
		EE 329T	Electrical Machines
		ME 275T	Mechanics of Materials
Fourth Year			
Seventh Semester		Eighth Semester	
Code	Course title	Code	Course title
ME 423T	Steam Plant Engineering	ME 521T	Maintenance Planning
EE 418T	Automatic Control Systems	MM 543T	Ship Design
MM 446T	Ship Repair Technology	MM 516T	Marine Engineering IV
MM 415T	Marine Engineering III	EE 449T	Electrical Power in Ships
ME 434T	Refrigeration & Air Conditioning	MM 524T	Marine Diesel Engines IV
ME 454T	Machine Design	MM 501T	Project

Marine Electrical Technology Program

First Year			
First Semester		Second Semester	
Code	Course title	Code	Course title
BA 113	Physics I	BA114	Physics II
BA 123	Mathematics I	BA118	Chemistry
BA 141	Engineering Mechanics I	BA124	Mathematics II
CC 111	Introduction to Computer	BA142	Engineering Mechanics II
D 101	Leadership I	CC114	Introduction to Programming
MT 112T	Marine Safety	D102	Leadership II
LH 131T	ESP I	IM112T	Manufacturing Technology
ME 151T	Eng. Drawing and Projection	LH132T	ESP II
P 101	Physical Education I	P102	Physical Education II
Second Year			
Third Semester		Fourth Semester	
Code	Course title	Code	Course title
BA223	Mathematics III	MT218T	Engine Room Simulator I
D203	Leadership III	D204	Leadership IV
ET231	Electrical Engineering Circuits I	MT210T	Marine Engineering knowledge
LH231T	ESP III	ET232	Electrical Engineering Circuits II
MT232T	Thermofluids	ET211	Fundamentals of Instrumentation
ET271	Electronics and Communications	ET221	Fundamentals of Electric Power and Machines
MT 274T	Materials Science	MT220T	Marine Prime Mover
P203	Physical Education III	MT240T	Basics of Naval Arch. & Ship Construction
		P204	Physical Education IV

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Third Year			
Fifth Semester		Sixth Semester	
Code	Course title	Code	Course title
S 300	Guided Sea Training - Electric	ET311	Logic Circuits And Signal Conditioning
Or		ET312	Microprocessor Basics
S 300*	Planned Sea Training - Electric	ET313	Control System
		MT321T	Marine Diesel Engine
		ET342	Power Systems
		ET322	Electrical Machines I
Fourth Year			
Seventh Semester		Eighth Semester	
Code	Course title	Code	Course Title
MT 391T	Maritime Law	ME 495T	Maintenance Planning
ET432	Power Electronic Design	ET444	Power System Protection
ET423	Electrical Machines II	ET424	Electrical Machine Drives
MT 434T	Refrigeration & Air Conditioning	ET401	Project
	Elective Course 1		Elective Course 1
	Elective Course 2		Elective Course 2
Elective Courses		Elective Courses	
ET 452	Electrical Marine Systems	ET 425	Special Electrical Machines
ET 472	Signals & Systems	ET 419	Marine Robotics Application
ET 414	Automation System 1-PLC1	ET 415	Automation System 2-Plc2
ET 447	Control of Power Systems in Marine	MT482T	Offshore Vessel's Dp

Course Summary Description

BA 113 – Physics I – Cr:3
Prerequisite: None

This course covers: Electrostatics / Multiple charges / Electric field / Electric potential / Capacitors (Parallel plate capacitor, energy stored) / Capacitors with dielectric between its plates / Electric currents and DC circuits / Revision in series and in parallel + Kirchhoff's rules / RC circuits / Magnetism / Generation of magnetic field / Electromagnetic induction / Lenz's law, / mutual induction-self induction / Physical optics.

BA 114 – Physics II – Cr:3
Prerequisite: BA 113

This course covers: Introduction + Reversible work (units, force, and energy) / Reversible work (applications) / The first law of thermodynamics / The steady flow equation / The working fluid. / Reversible non–flow processes / The second law of thermodynamics / Applications of the second law of thermodynamics / Reversible non-flow processes on P-V and T-S diagrams / Heat transfer (Introduction + Slab equations) / Heat Transfer (Cylinder + Sphere) / Applications of heat transfer / Sound (vibration and wave motion) / (Superposition and standing waves).

BA 118 – Chemistry – Cr:2
Prerequisite: None

This course covers: Introduction / electrochemical Reactions / Electro chemical cells / Electrochemical Series / Polarization / Passivity / Definition of Corrosion / Metals and Corrosive Environments / Forms of corrosion / uniform / Galvanic and D.A.C. / Pitting corrosion / S.C.C. and I.G.C. / Atmospheric Corrosion / Erosion Corrosion / Coating protection and Inhibitors / Cathodic Protection. Classification of Fuel / Properties of liquid fuel / Combustion of fuel / Purpose of Lubrication / Classification of Lubricants / Properties of Lubricating Oils /– choice of Lubricant / Additives: Introduction / Impurities in Water / Purification and Treatment of Water.

BA 123 – Mathematics I – Cr:3
Prerequisite: None

This course covers: Basic rules of differentiation/ Trigonometric functions and their derivatives/ Inverse of trigonometric functions and their derivatives/ Logarithmic functions and their derivatives/ Exponential functions and their derivatives/ Derivatives of hyperbolic functions and their inverse/ Parametric differentiation/ Implicit differentiation/ L'Hospital rule/ Partial Differentiation/ Maclaurin's expansions/ Physical application/ Curve sketching Conic sections.

BA 124 – Mathematics II – Cr:3
Prerequisite: BA 123

This course covers: Definition of indefinite integrals & table of famous integrals / Simple rules of integration & the fundamental theorem of calculus / Integration by parts / Integration by parts & integration of rational functions / Integration of rational functions / Integration of trigonometric powers / Trigonometric substitution / Integration of quadratic forms and the reduction formulas / Definite integration & Area and volume / Length of curve & Average of a function & numerical integration / Matrix Algebra: Matrix addition / scalar multiplication / matrix multiplication and inverse of matrix / Solution of systems of linear equations using inverse of matrix and Gauss elimination method / Eigen values and eigenvectors / Physical meaning of Eigen values and eigenvectors.

BA 141 – Engineering Mechanics I – Cr:3
Prerequisite: None

Rectangular components of a force- Parallelogram law / Equilibrium of particle / Springs and cables / Moment of force / Free body diagram / Equilibrium of rigid body / Trusses "joint method, / zero-force members" / Trusses "method of section" / Frames / Friction / Mass Moment of Inertia / Virtual work.

BA 142 – Engineering Mechanics II – Cr:3
Prerequisite: BA 141

Kinematics of a particle: Rectilinear Kinematics / Curvilinear Motion / Projectile Motion. / Kinetics of a particle: Force and Acceleration / Work and Energy. / Kinematics of a rigid body: /Translation / Rotation about a fixed Axis / General Plane Motion / Relative Motion (Velocity) / Relative Motion (Acceleration) / Planar Kinetics of a Rigid Body:/ Equations of Translational Motion / Equations of Rotational Motion / Equations of General Plane Motion / Work and Energy.

BA 223 – Mathematics III – Cr:3
Prerequisite: BA 124

This course covers: First order ordinary Differential Equations: Separation of variables / Initial value problem / Homogeneous Equations / First order Differential Equations: Total differential and Exact Equations - Linear Equations. First order ordinary Differential Equations: Bernoulli's Equation / Revision of First order Differential Equations. / Second order ordinary Differential Equations with constant coefficients: / Fundamental set of solutions / Linear independence of solutions:/ Wronskian. / General solution of homogeneous equations./ Second order ordinary Differential Equations with constant coefficients:/ Non-homogeneous Equations (Method of undetermined coefficients)./ Second order ordinary Differential Equations with constant coefficients:/ on-homogenous Equations Method of undetermined coefficients (Case of duplication)./ Second Order ordinary Differential Equation with variable coefficients: / [Euler-Cauchy Equations] . / Laplace transform: Basic definition / First Shifting Theorem (s-shifting)./ Laplace transform: / Transform Differentiation / Transform Integration./ Laplace transform:/ Unit Step Function / Second Shifting Theorem (t-shifting)./ Convolution Theorem./ Inverse Laplace Transform./ Applications:/ Solution of D.E. using Laplace Transform. / Solution of integral equation (Volterra Integral Eq.) using Laplace Transform. / Fourier series:/ Fourier series for functions of period 2P. / Fourier series:/ Fourier series for Even and Odd functions. / Fourier series for harmonic functions.

BA 224 – Mathematics IV- Cr.3.
Prerequisite: BA223

Vector Algebra / Dot and cross product and Applications - Partial Differentiation / and Derivatives of vector functions - Gradient / Divergence / curl/ Laplacian - Line Integrals / line Integrals Independent of the path / Exactness - Conservative vector fields - Double Integrals in Cartesian and polar coordinates / Green's Theorem - Surface Integrals / Stokes' Theorem - Triple Integrals / Divergence (Gauss′ Theorem) - Review on Integrals Theorems - Complex numbers and functions / forms of representation - Analytic functions / Harmonic functions - Line complex integrals / Cauchy′s Integrals Theorem - Zeros and poles of Analytic functions / Residues and their evaluation - Residue Theorem / Application of Real Integral - Introduction to Fourier Integrals and Transforms.

MT 112T – Marine Safety – Cr:2
Prerequisite: None

This course covers main topics including: Fire prevention, Control and Fighting, Operation of Life Saving Appliances and Applying Medical First Aid on-board Ships.

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CC 111 – Introduction to Computer – Cr:3 Prerequisite: None

This course covers: An Introduction to Computers, Their Use and Applications,The System Unit Processing and Memory, Storage and Input/Output Devices, Systems Software and Applications Software, Program Development Lifecycle, Flowcharts, Communications and Networks,Visual Basic Introduction,Visual Basic In-depth,Visual Basic Advanced Applications,The Internet and the Worldwide Web, Ethics, Computer Crime, Privacy and Social Issues.

CC 114 – Introduction to Programming – Cr:3 Prerequisite: CC 111

This course covers: an introduction to computer and programming, problem solving skills and software development methods, data type operators and simple functions, input/output statements and expressions, selection structures and switch statements, repetition and loop statements, functions and modular programming, arrays applications, and multidimensional arrays.

D 101 – Leadership I – Cr:0.5 Prerequisite: None
D 102 – Leadership II – Cr:0.5 Prerequisite: D 101
D 203 – Leadership III – Cr:0.5 Prerequisite: D 102

D 204 – Leadership IV – Cr:0.5
Prerequisite: D 203

The program has been meticulously developed taking into account being objective to form the student's independent character, guide and train him to take responsibility and participate in decision-making as well as taking into account the demographic aspects of the student in terms of customs and traditions, social and psychological factors.

EE 218 – Instrumentation & Measurements – Cr:3
Prerequisite: EE 239

Introduction to feedback control - Specification of measurement instruments - Pressure measuring instruments - Temperature instruments - Liquid level instruments - Liquid flow instruments – Viscosity - Displacement & velocity measurements - Data analysis- Signal transmission.

EE 239 – Electrical Eng. Fundamentals for Marine – Cr:3
Prerequisite: BA 124

Basic circuit: current, voltage, Ohm's law, Kirchoff's current and voltage laws, resistances in series or parallel, Mesh analysis, Nodal analysis. source transformations, superposition voltage and current divider. Basics of electronic circuit elements - Diode & Transistor Circuits Diode & Transistor Circuits Thyristor Circuit - Alternating current - Waves, effective value.- Power.

EE 329T – Electrical Machines – Cr:3
Prerequisite: EE 239

Basic circuit: current, voltage, Ohm's law, Kirchoff's current and voltage laws, resistances in series or parallel, Mesh analysis, Nodal analysis. Source transformations, superposition voltage and current divider. Basics of electronic circuit elements - Diode & Transistor Circuits Diode & Transistor Circuits Thyristor Circuit - Alternating current - Waves, effective value - Power.

EE 418T – Automatic Control Systems – Cr:3
Prerequisite: EE 218

Introduction to control system - Modeling of control system - Time and frequency response - Error Detector / Comparator - Electric and pneumatic transducer and actuator - Controller type (logic and analogue controller) - Controllers design - Control system application.

EE 449T – Electrical Power in Ships – Cr:3
Prerequisite: EE 329T

Elements of power system. DC and AC distribution on board ships and on earth-marine cables. Symmetrical faults. Power system protection and protection elements – Cables – Lighting - High Voltage System.

ET 211 – Fundamentals of Instrumentation – Cr:3
Prerequisite: None

This course covers the principles of measurements through thorough understanding of various rules, regulations and definitions related to it. The course enables the students to understand the way of measuring various physical quantities like displacement, velocity, pressure, temperature, level, flow, torque, voltage and current measurements. It also covers the fundamentals of digital measurements.

ET 221– Fundamentals of Electric Power and Machines– Cr:3
Prerequisite: BA 113-ET 231

The course enables the students to understand the fundamentals of electrical machines through fully understanding the operation of various machine types, in addition to knowing transformer model. The course enables the students to understand the transmission and distribution of electrical power on-board ships followed by learning the basics of installation and wiring on-board ships.

ET 231 – Electrical Engineering Circuits I – Cr:3
Prerequisite: BA 113

The course covers the principle of Electrical DC circuits through perfect understanding of various rules, regulations and definitions related to it followed by studying various methods of circuit analysis. The course enables the students to understand alternating current fundamentals and A-C generation through identifying AC elements and its natural response.

ET 232 – Electrical Engineering Circuits II – Cr:3
Prerequisite: ET 231

This course covers the principles of magnetism through thorough understanding of various rules, regulations and definitions related to it. The course enables the students to understand three phase circuit analysis and power calculation, in addition to natural response of AC circuits.

ET 271 – Electronics and Communications – Cr:3
Prerequisite: BA 113

Technology of electrical materials; conductivity, Semiconductors; varistors and thermistors, Dielectrics; Superconductors. Operation of all internal communication systems on board; Automatic telephone system, PBX, PABX, POTS, DECT, ISDN, VoIP, typical PBX used on-board ships. Emergency sound powered telephone system. Talkback - Intercom System. Maintenance and repair of bridge navigation equipment, basics of navigation; navigation charts, electronic charts. Radar; Principle of operation, block diagram of bridge radar system, radar diagnostic and troubleshooting, Automatic Radar Plotting Aids (ARPA). Global Navigation Satellite Systems; Satellite Systems: GPS, GLONASS, Galileo. Bridge-Based, Electrical and Electronic systems operating in flammable areas.

ET 311 – Logic Circuits and Signal Conditioning – Cr:3
Prerequisite: None

This course covers the principles of digital concepts and numbering systems through complete understanding of various digital circuits and definitions related to it. The course enables the students to understand the signal conditioning circuits, operational amplifier and its application, in addition to learning the analogy of analog to digital conversion (A/D) and digital-to-analogy (D/A).

ET 312 – Microprocessor Basics – Cr:3
Prerequisite: CC 111

This course covers the principles of microprocessors and microcomputers through perfect understanding of various software and hardware elements and definitions related to it. The course enables the students to understand the signal conditioning and data acquisition system, in addition to learning microcontrollers software and hardware implementation and its applications.

ET 313 – Control System – Cr:3
Prerequisite: ET 211

The course is designed to teach the students the basic fundamentals of control system through complete understanding of modeling of various physical systems using Laplace transform and the concept of transfer function, defining the meaning of open loop systems and closed loop systems and analyzing the system using block diagram reduction techniques or signal flow graph reduction techniques. The course helps the students acquire knowledge of checking the stability of the system followed by Proportional Integral Derivative controller and System response to P, PI and PID.

ET 322 – Electrical Machines I – Cr:3
Prerequisite: ET 221

The course enables the students to understand the fundamentals of DC machines through perfect understanding of the construction and operation of various DC machine types. The course also enables the students to understand single phase transformer through perfect understanding of construction and principle of operation. The course helps the students study equivalent circuit, voltage regulation, losses and efficiency of both topics.

ET 342 – Power Systems – Cr:3
Prerequisite: ET 221

This course covers the principles of power flow equations in Power systems through good understanding of various types of rules like Seidel power flow solution and Newton Raphson power flow solution. The course enables the students to understand Fault types (The symmetrical components of unbalanced phasors and Unsymmetrical faults on power systems) and calculation using Z bus, followed by studying the High voltage supply and electrical propulsion system in ships in addition to grounding of electrical system.

ET 401 – Project – Cr:3
Prerequisite: None

Theoretical and practical knowledge gained over the eight semesters in the field of marine engineering is applied via a graduation project. A thesis, which may include theoretical, practical, and/or computer work, is prepared and refereed by two experts. Oral presentation and discussion of thesis is mandatory.

ET 414 – Automation System 1 - PLC1 – Cr:3
Prerequisite: ET 313

The course enables the students to understand the Automation systems and their components through perfect understanding of various detecting sensors, actuating elements, relay logic and their applications. The course enables the students to understand the PLC software and hardware requirements followed by Marin Applications using PLCs. in addition to knowing motor control centers.

ET 415 – Automation System 2 - PLC2 – Cr:3
Prerequisite: ET 414

The course enables the students to understand the Automation systems and their components through perfect understanding of various detecting sensors, actuating elements, relay logic and their applications. The course enables the students to understand Analog signals processing using PLC followed by learning the various communication protocols used in industrial systems, in addition to knowing SCADA systems and HMI interfaces in some marines applications.

ET 419 – Marine Robotics Application – Cr:3
Prerequisite: ET 313

This course covers the principles of Robotic application in marine through the well understanding of various types of rules like inverse and forward kinematics of various types of robots. The course enables the students to understand the concept of modeling of robots followed by position control and navigation system in AOVs. The course also covers an introduction to wheeled mobile robots applications in marines.

ET 423 – Electrical Machines II – Cr:3
Prerequisite: ET 232

The course enables the students to understand the principle of three phase machines through perfect understanding of the main construction and its theory of operation. The course also enables the students to understand synchronous machines, through perfect understanding of construction and principle of operation, in addition to studying equivalent circuit, voltage regulation, losses and efficiency of both machines.

ET 424 – Electrical Machine Drives – Cr:3
Prerequisite: ET 432

The course enables the student to understand Electrical Machine Drives through prefect understanding of Torque-Speed characteristics of various types of electrical machines. The course also enables the student to synchronize between the power electronics circuits and machine nature to control the speed and torque using voltage, current and frequency control, in addition to studying the soft starting and braking of various types of machines.

ET 425 – Special Electrical Machines – Cr:3
Prerequisite: ET 432

The course enables the student to understand various types of Special Electrical Machines through perfect understanding of their construction and their principle of operation followed by studying the equivalent circuit for each machine. Examples of these machines: Linear induction motors, Servo motor, Stepper motor, Universal motor Brushless DC motors, Single phase induction motor.

ET 432 – Power Electronic Design – Cr:3
Prerequisite: ET 231

The course enables the students to understand the fundamentals of power electronics through full understanding of the main power electronics Semiconductors elements like Power diodes, Power thyristors Power triacs and Power transistors followed by studying the various power electronics circuits to fulfill different electrical uses like AC-DC conversion and DC-AC conversion, in addition to studying DC voltage regulation and AC voltage regulation circuits.

ET 444 – Power System Protection – Cr:3
Prerequisite: ET 342

This course covers the principles of protection systems on-board ships through complete understanding of various equipment, coordination, types of relays, regulations and definitions related to it. The course enables the students to understand the protection of rotating machines and transformers using static relays. It also helps students study the construction and software requirements of digital relays.

ET 447 – Control of Power Systems in Marine – Cr:3
Prerequisite: ET 342

This course covers the principles of control application in marine power system through prefect understanding of various types of rules like Parallel operation of generators and Load sharing. The course enables the students to understand active and reactive power control of the generators, in addition to connection between main and emergency switchboards.

ET 452 – Electrical Marine Systems – Cr:3
Prerequisite: S 300

This course covers the principles of electrical installation on-board ships through prefect understanding of Determination of loads & Load Characteristics and studying the factors affecting selection of circuit arrangements using electrical Codes and Standards.
The course enables the students to understand various types of loads needed on-board ships which are: Lighting systems, Heating and Air-conditioning, Lifts and escalators, Electrical safety: Fire alarm systems –- Electrical & electronic systems operating in Flammable Areas and UPS Standby power systems. It also covers studying Galley equipment and Laundry equipment.

ET 472 – Signals & Systems – Cr:3
Prerequisite: S 300 – CC112

Construction and use of computer networks on-board ships; Industrial networks in process control, internet and Ethernet protocols, medium access methods, Profibus DP network, the USS network, & Modbus network.

IM 112T – Manufacturing Technology – Cr:2
Prerequisite: None

Processing of engineering materials for manufacturing purposes. The concepts of metal forming and casting. Machining and welding techniques used in manufacturing. The measuring techniques and how they are used for quality control.

IM 212T – Manufacturing Process I – Cr:3
Prerequisite: IM 112T

The aim of this course is to study the manufacturing processes which converts the materials into functionally usable goods by means of material removal. Processes must be selected for compatibility with the selected materials, keeping in mind the quality, cost, and production rate. Finally, the aim of this course is to produce a state–of–the art introduction to the material removal processes used in manufacturing.

LH 131T – ESP I – Cr:2
Prerequisite: None

This course covers the four language skills, namely: reading, writing, listening and speaking. It also introduces students to various basic relevant topics in the field of engineering, including choosing a course, engineering materials, mechanisms, forces in engineering, the electric motor, as well as central heating.

LH 132T – ESP II – Cr:2
Prerequisite: LH 131T

This course covers the four language skills, namely: reading, writing, listening and speaking. It also tackles a variety of relevant engineering topics, such as scales, portable generators, road breaker, disc brakes, lawn mower, corrosion and Maglev train.

LH 231T – ESP III – Cr:3
Prerequisite: LH 132T

The course trains learners to write different types of technical reports, including background reports, process reports, primary research reports and feasibility reports. It also trains them to use different types of charts, as well as to apply the rules of documentation according to international standards.

ME 151T – Eng. Drawing and Projection – Cr:2
Prerequisite: None

This course describes the basic information of engineering drawing through drawing practices and techniques – Geometrical constructions – Dimensioning and free hand sketching – Methods of projection – Orthogonal projection — Sectioning and conventions – Intersection of geometrical surfaces and development – Standard metal sections and metal structures – Pictorial projection (Isometric) – Surface intersections – Perspective projection – An introduction to Computer Aided Drafting using AutoCAD.

ME 252T – Mechanical Engineering Drawing - Cr:2
Prerequisite: ME 151T

AutoCAD basics – Object construction and manipulation – Geometric construction – Layers, text generation and dimensioning – Section views, hatching and construction of blocks – Solid modeling – Assembly drawing with applications in Mechanical, Industrial and Marine Engineering – Free hand sketching – Conventional representation of Mechanical elements – Surface finish and machining symbols – Fits and tolerances – Welding and hydraulic symbols.

MT 210T– Marine Engineering Knowledge – Cr:2
Prerequisite: None

Engine room lay out - Types, configuration and efficiency of ship propulsion plants - Construction and operation of pumps - Construction and operation of valves, filters, pipelines, heat exchangers - Ship piping systems (Bilge – Ballast – Fire) - Construction and operation of compressors - Construction and operation of purifiers - Construction and operation of steam boilers - Construction and operation of steering gears, rudder propellers, azipods and cycloid propulsions, bow thrusters and stabilizers - Construction and operation of steering gears, rudder propellers, azipods and cycloid propulsions, bow thrusters and stabilizers - Construction and operation of cargo handling machinery of general cargo ships, containers, tankers, LNG carriers and chemical carriers - Construction and operation of cargo winches, deck cranes, capstans, mooring winches, hatch cowers and watertight doors.

MM 211T – Marine Engineering I – Cr:3
Prerequisite: None

This course is an introduction to marine engineering. It comprises an overview of all engine room systems: power transmission system, steering gear system, and pumping systems. The course also comprises different engine room auxiliary machinery: different types of pumps, valves, air compressor, and heat exchangers.

MM 415T – Marine Engineering III – Cr:3
Prerequisite: S 400 or S400*

The course covers many important systems on-board ship, e.g., bow thruster, stabilizer, fresh water generator, fire detection and prevention, firefighting equipment and safety in engine room, oils filtering, purification and clarification

MT 218T – Engine Room Simulator I – Cr:3
Prerequisite: None

The course is essentially a practical one, consisting of a series of exercises structured around the operation of a ship's machinery installation and carried out in conjunction with an engine room simulator.

MT 220T – Marine Prime Mover – Cr:2
Prerequisite: MT 232T

Heat Engine – Requirement & Classification of Diesel engine-Engine principles - Engine Efficiencies - Operating cycle – Timing Diagram 4 & 2 stroke diesel engine - Exhaust and scavenging processes in diesel engine - Supper charging &Turbo chargers - Marine Gas turbine engine - Fuel system & Electronic Fuel Injection - Lubrication oil system - Cooling water system - Starting and Reversing System - RT flex camels engine - Diesel Generators - Diesel engine Safety devices.

MT 321T – Marine Diesel Engine – Cr: 3 - Prerequisite: MT 220T

This course is an introduction to marine diesel engines. It includes an overview of heat engines, the classification of heat engines and marine diesel engines. It also contains the theory of operation of diesel engines, diesel engine parts, Fuel oil & Lube. Oil.

ME 231T – Thermodynamics – Cr:3
Prerequisite: BA 114

This course comprises description of thermodynamics. It introduces and classifies: heat engine cycles, steam cycles and gas turbine cycles.

MT 232T– Thermofluids – Cr:3
Prerequisite: BA 114

Heat Engine Cycles - Heat Engine Cycles-Steam Cycles - Positive Displacement Machine - Gas Turbine – Basic Principles of hydraulic and pneumatic drivers - Construction and Operation of hydraulic systems components - Construction and Operation of hydraulic systems control and operation - Examples of marine hydraulic and pneumatic machinery-Continuity Equation Problems - Bernoulli's Applications Problems.

MT 240T – Basics of Naval Arch. & Ship Construction – Cr:2
Prerequisite: None

Merchant ship types - Principal dimensions - Ship stresses - Shipbuilding materials - Framing systems - Ship structural items - Typical midship sections - Displacement & coefficients of form - Calculations of area and volume - Centre of gravity - Stability of ships - Ship resistance and propellers.

MM 241T – Naval Arch. & Ship Construction – Cr:3
Prerequisite: None

This course comprises the principles of Naval Architecture & Ship Construction through perfect understanding of various ship types and the definitions related to them. The course enables the students to understand the main stresses acting on the hull and how to resist stresses through framing systems, in addition to calculating the center of gravity and ship stability

MT 274T – Materials Science – Cr: 3

Prerequisite: BA 114 – BA 142

To cover the relationship between the structure & properties of engineering materials. How to modify the structure to achieve specific properties with emphasis on some typical applications

MM 516T – Marine Engineering IV – Cr:3
Prerequisite: MM 415T

This course comprises: operation characteristics of pumps and systems - Positive displacement pumps operation and maintenance - Roto-dynamic pumps operation and maintenance - Heat exchanger types and maintenance - Prevention of pollution - Steering gear hydraulic system testing and operation - Hydraulic power operated rudder systems - Refrigeration system components & types and operation - Air conditioning & ventilation systems.

MM 423T – Marine Diesel Engines III – Cr:3
Prerequisite: S 400 or S 400*

This course comprises description of maintenance of marine diesel engine. It introduces the preparation and precautions before and during maintenance, procedures of disassembly and assembly & monitoring diesel engine operation and Performance evaluation.

ME 431T – Heat Transfer – Cr:3
Prerequisite: ME 231T

This course comprises the general principles of steady state conduction, one dimension unsteady state conduction, Principles of convection, Natural convection systems. Radiation heat transfer, Design of surface heat exchangers.

ME 362T – Hydraulics – Cr:3
Prerequisite: BA 223

This course comprises the principles of hydraulic system and physical properties of incompressible fluid. Understanding the basic principles of hydrostatics and hydro kinematics. Flow in pipes and flow measurements. Application of continuity and Bernoulli's equations in practical.

MT 391T – Maritime Law – Cr: 3
Prerequisite: None

This course aims at meeting the mandatory minimum requirements for knowledge, understanding and proficiency in Table A-III/1 of STCW 2010 for the function Care for Persons on-board at the Operational Level. On completion of the course, the students will be conversant with the certificates required to be on-board, their periods of validity and the procedures of their renewal. They will also be aware of their legal obligations and responsibility concerning international provisions for the safety of the ship, crew, passengers and cargo and for the prevention of pollution from the ship.

MM 501T – Project – Cr:3
Prerequisite: None

Theoretical and practical knowledge gained over the eight semesters in the field of marine engineering is applied via a graduation project. A thesis, which may include theoretical, practical, and/or computer work, is prepared and evaluated by two experts. Oral presentation and discussion of thesis is mandatory.

ME 423T – Steam Plant Engineering – Cr:3
Prerequisite: ME 431T

This course comprises an overview of the operation, performance and maintenance of large propulsion steam power plants on-board ships (boiler-turbine-generator), and introduces the students to the context of operating steam power plants on-board ships beside learning propulsion steam boiler construction and operation, turbine construction and operation and fault detection necessary to prevent damage.

MM 524T – Marine Diesel Engines IV – Cr:3
Prerequisite: MM 423T

This course comprises description of the development of Marine diesel engine. It introduces and classifies: dual engines, electronic injections, VIT, Gas Turbine, RTFLEX Engine, Performance evaluation and Safety devices.

MT 434T – Refrigeration & Air Conditioning – Cr: 3
Prerequisite: MT 232T

Fundamentals of refrigeration - Basic refrigeration system - Refrigeration control - Insulations - Load calculations - Components and cycle selection - Air conditioning fundamentals - Psychometric cycles for summer and winter - Air conditioning equipment.

MM 446T – Ship Repair Technology – Cr:3
Prerequisite: S 400

Defining terminologies related to shipbuilding industry. Demonstrating knowledge and understanding of shipbuilding stages, Naming the different methods of ship docking and distinguishing between them. Identifying and classifying modern welding and painting techniques that are commonly used in shipyards. Presenting the common types of damage to ships and identifying such damages

MM 543T – Ship Design – Cr:3
Prerequisite: MM 241T – S 400

This course comprises the principles of ship design through thorough understanding of various rules, regulations and definitions related to it. The course enables the students to understand the steps of ship building, in addition to using the computer (excel and maxsurf programs) in ship design and calculating ship resistance and powering.

ME 454T – Machine Design – Cr:3
Prerequisite: ME 252T - ME 275T

The course provides sufficiently advanced understanding of: stresses in machine parts, screws, fasteners, welded joints, flexible mechanical elements, bearings, gears and shafts. It also aims at imparting appreciation of basic design considerations to give the students awareness of the factors affecting design in relation to problems in engineering application.

ME 275T – Mechanics of Materials – Cr:3
Prerequisite: ME 274T

The course enables the students to calculate and sketch normal force, shearing force and bending moment diagrams, and determine stresses and strains in beams and simple structural members subjected to various types of loading.

MT 482T – Offshore Vessel's DP – Cr:3
Prerequisite: None

Introduction & System Theory - Hardware Architecture & Description – Sensors - Signal Processing & Networking - System Configuration - Modes of Operation - System Alarms – Safety.

ME 521T – Maintenance Planning – Cr: 3
Prerequisite: None

This course provides a tool for better maintenance & regular operations and increasing safety for both crew and equipment, including many elements such as operational planning cost control & stock control Information and instruction.

P 101 – Physical Education I – Cr:0.5
Prerequisite: None

Periodic respiratory endurance - load-bearing capacity - Avoiding slipping on the swimming pool floor - Breathing properly in the water "inhale and exhale" - Floating from the still position and hitting the water in freestyle swimming - Football training (pass the ball- receive the ball- run with the ball- aim at the goal).

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P 102 – Physical Education II – Cr:0.5
Prerequisite: P 101

Weight-lifting to improve the load-bearing capacity – Moving the arms in freestyle swimming - The compatibility between the movement of the legs and the arms in freestyle swimming - Regulating the movement of the arms and legs with the breathing in freestyle swimming - swimming properly for a distance of 50 meters- Basketball training.

P 203 – Physical Education III – Cr:0.5
Prerequisite: P 102

Raising physical fitness levels - Improving students' freestyle swimming performance - Floating in deep water for a relatively long period of time - Backstroke swimming training - Volleyball training - Acquiring basic karate skills.

P 204 – Physical Education IV – Cr:0.5
Prerequisite: P 203

Training for a higher fitness level - Improving students' freestyle swimming performance -Increasing students' ability to stay still in deep water (floating) after swimming for a distance of 50 meters. Students should learn the compatibility between the movements of the arms and legs to do the backstroke and to swim for a distance of 50 meters properly. Ball (football-basketball-volleyball) Integrating all the skills that have been honed in the previous courses through organizing mini matches and games between classes. Acquiring basic karate skills.

S 400 - Guided Sea Training (Academy's Training Ship) - or S 400* - Planned Sea Training - (Merchant ships) – Cr: 14

According to STCW 78 as amended (Table A-III/I), cadets must gain practical knowledge and experience of watchkeeping at all times throughout this period whether the ship is in port or at sea. The cadets must study the following courses:

TI 314	Practical Marine Safety
TI 313	Nautical Technology
MM 342	Naval Architecture & Ship Construction II
MM 322	Marine Diesel Engines II
TI 381	WatchKeeping Duties
MM 312	Marine Engineering II
D 305	Leadership V
TI 393	Marine Electrical Engineering
TI 391	Marine Control System

D 305 – Leadership V – Cr: 1

The program has been meticulously developed taking into account being objective to form the student's independent character, guide and train him to take responsibility and participate in decision making as well as taking into account the demographic aspects of the student in terms of customs and traditions, social and psychological factors.

TI 313 – Nautical Technology – Cr: 1

According to STCW 78 as amended (Table A-III/1) and IMO Model course 7.04, cadets must gain practical knowledge and experience of the navigation bridge watchkeeping throughout this course at all times whether the ship is in port or at sea.

TI 314 – Practical Marine Safety – Cr: 1

This course covers: An introduction - emergency situation & Muster list - Personal life-saving appliances - Visual signals and communications onboard - Survival crafts: Lifeboats - Fire Detectors & fireman's outfit - Fire extinguishers: CO2 - Fixed systems - Routine maintenance of safety Equipment.

TI 381 – Watchkeeping Duties – Cr: 2

Watch in port - Preparation for maneuvering - Receiving the watch during seagoing - Handling over the watch - Watchkeeping routine duties - Communication with the officer in charge - Emergency cases in engine room - Safety requirements for working on ship board electrical systems.

MM 312 - Marine Engineering II - Cr.3

Pumping systems - cooling systems - ballast system - bilge system - piping fitting - types of valves – deck machinery - watchkeeping duties. Introduction to steering gear.

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MM 322 - Marine Diesel Engines II - Cr.3

The training machinery installations - main and auxiliary engines preparations - starting - condition monitoring and stopping procedures - actual systems of training ship - cooling - lubrication - fuel and starting systems of main propulsion plant - main diesel engine propulsion system evaluation using the diesel engine combustion performance analyzer - engine trouble shooting study and analysis - marine machinery maintenance.

MM 342 - Naval Architecture & Ship Construction II - Cr.2.

Merchant ship types principal dimensions - ship stresses - framing system - ship structural items - typical mid ship sections longitudinal and transverse members - types of rudders - docking of ship - inspection and maintenance work of all underwater fittings - different surveys required by the rules of classification societies.

TI 391 – Marine Control System - Cr: 2

This course covers: open loop and closed systems - Block Diagram - Function of each component in a closed loop - Open loop and closed loop control system on board - The training ship different sensing elements - Measuring pressures – Temperatures - levels and flow rates on-board the training ship - Some control systems used on-board the training vessel - Location of common faults and action to prevent damage of control system - Auxiliary boiler control systems (Starting and Operation).

TI 393 – Marine Electrical Engineering – Cr: 1

This syllabus covers the requirements of STCW 78 Convention chapter III section AIII/1. This fundamental element provides the detailed knowledge to support the training outcomes related to Electrical Marine System, we demonstrate knowledge and understanding of:

- Electro-Technology and electrical AC Generators Theory.
- Electrical Power Distribution Boards and Electrical Equipment.
- Fundamentals of Power Electronics.
- Instrumentation, Alarm and Monitoring Systems.
- Electrical AC Drives.

S 300 - Guided Sea Training (Academy's Training Ship) - Electric or S 300* - Planned Sea Training-Electric (Merchant ships) – Cr: 14

According to STCW 78, as amended, (Table A-III/6), cadets mist gain practical knowledge and experience of watchkeeping throughout this period at all times either whether the ship is in port or at sea. The cadets must study the following courses:

TI 314	Practical Marine Safety
TI 313	Nautical Technology
TI 372	Practical Naval Architecture & Ship Construction
TI 382	Practical Marine Diesel Engines
TI 381	WatchKeeping Duties
TI 383	Practical Marine Engineering
D 305	Leadership V
TI 393	Marine Electrical Engineering
TI 391	Marine Control System

TI 372 – Practical Naval Architecture & Ship Construction – Cr: 2

This course covers: An introduction to ship construction, Importance of studying ship construction, Engineering drawings, ship building steels, ship building steel sections. International Association of Classification societies. Ship dimensions - Vessel structure - Types of ships - cross section of General cargo - cross section of bulk carrier. Cross section of container ship - cross section of Ro-Ro ship - Cross section of Oil Tanker - Cross section of Refrigeration ship. Fore end construction - stern construction - Stresses acting on ship structure -General and local structure stresses – Rudders - Bulkheads.- Cargo hold bilge system - Dry docking - types of docks - preparing a ship for docking.

TI 382 – Practical Marine Diesel Engines – Cr: 2

This course covers the basic & operational application of marine diesel engines on-board ships. It covers the systems serving the diesel engines like (warming up - starting – cooling - lubrication - exhaust & scavenging), beside operation, watching & engine stopping.

TI 383 – Practical Marine Engineering – Cr: 2

This syllabus covers the requirements of the STCW 78 convention, as amended, Chapter III section AIII/1. This functional element provides the detailed knowledge to support the training outcomes related to Marine Engineering at the operational level so that students can apply these determinations with high accuracy and efficiency. It also covers: Tanks arrangement and enclosed spaces - Fuel oil transfer and service systems – Lub. oil systems – Bunkering - Compressed air system - Bilge and ballast system - Fresh water service system - Sounding over flow and vent pipe (during sea voyage) - Pumps - Heat exchangers - Steam and feed water systems - F.W Generator – Steering gear - Treatment of fuel oil and lube oil - Shafting arrangement - Auxiliary boiler arrangement – Exh. Gas economizer - Auxiliary boiler arrangement – Pollution prevention (oil water sep. – sewage treatment plant) Sea voyage - Deck machinery – Bow thruster – Refrigeration - Air conditioning.

Special Courses & Simulators Department

The Special Courses and Simulators' Department offers special tailor-made courses and programs, which serve the maritime industry by developing the trainees' knowledge, attitude and skills either as deck department personnel or engine department personnel or in the maritime management assignments in accordance with the latest trends in the international standards of certification and qualification. The Department is assigned the responsibility of the practical training and simulations to all College departments as well as the Maritime Affairs through holding training sessions to all levels.

The Special Courses

- Marine courses
- Offshore courses
- Tugs and pilotage programs
- Maritime management courses
- Conventions & investigation courses
- Marine engineering courses
- Liquid cargo handling
- Charter parties courses
- Marine insurance courses

The Simulators Center

The College of Maritime Transport and Technology Simulators Center (CMTT-SIM) consists of Bridge Simulators, Full Mission Engine Room Simulator (FMERS), and Liquid Cargo Handling Simulator (LCHS), all of which provide education, training and assessment for both operational and managerial levels

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Bridge Simulator

Navigator competency items related to navigation bridge operations are practiced and assessed using the Navi-Trainer Professional 5000 simulator:

- Plan and conduct a passage and determine position;
- Maintain a safe navigational watch;
- Use radar/ARPA and ECDIS to maintain safety of navigation;
- Respond to emergencies;
- Respond to a distress signal at sea;
- Manoeuvre the ship;
- Plan a voyage and conduct navigation;
- Determine position and resultant position fixing accuracy by any means;
- Determine and allow for compass errors;
- Coordinate search and rescue operations;
- Establish watchkeeping arrangements and procedures;
- Maintain safe navigation through the use of information from navigation equipment and systems to assist command decision-making;
- Maintain the safety of navigation through the use of ECDIS and associated navigation systems to assist command decision making;
- Manoeuvre and handle a ship in any condition;
- Operate remote controls of propulsion plant and engineering systems and services

Full Mission Engine Room Simulator

The Engine Room Simulator was developed for the education, training and assessment of Engine Department Personnel, including Officers In-Charge of Watch, Second and Chief Engineers.
The high level of physical and behavioral realism of ERS creates a professional environment for the following types of Marine Engineering Training:

- Familiarization and Education
- Standard Operation and Watchkeeping
- Advanced Operation and Troubleshooting
- Basic Physical and Technical Knowledge
- Engine Room Equipment Familiarization
- System Layout and Flow Diagrams
- Control, Automation, Alarm and Safety Systems
- Operational Instructions
- Watchkeeping Procedures
- Updating of Seagoing Engineering Personnel
- Refresher Courses

Liquid Cargo Handling Simulator

TRANSAS Liquid Cargo Handling simulators are designed to train and certify crewmembers of liquid cargo tankers, as well as other staff responsible for the safe cargo handling and the operation of auxiliary equipment. Liquid Cargo Handling simulator provides an exact, detailed copy of vessel/terminal systems and its compartments. This simulator is an ideal solution for training centres, academies, government authorities, shipping companies, coastal centers and crewing agencies. The simulator also enables onboard training and demonstration of competency. Liquid Cargo Handling Simulator replicates a cargo control room, allowing a comprehensive study of the tanker and terminal layout, including its machinery and systems according to international standards and requirements:

- General arrangement of the tanker and its systems;
- Maintenance of the tanker systems at management level;
- Control of vessel ballast system;
- Control of trim, stability and stress;
- Prevention of oil pollution from the ship;
- Proficiency in tanker technological operation;
- Monitor the loading, stowage, securing and unloading of cargoes and their care during the voyage;
- Maintain seaworthiness of the ship, plan and ensure safe loading, stowage, securing, care during the voyage and unloading of cargoes;
- Control of pump and piping systems;
- Operation of ballast and cargo handling system;
- Control trim, stability and stress;
- Resource management;
- Respond to emergencies;
- Take precautions to prevent pollution of the environment;
- Tanker/terminal interaction: cargo transfer systems, shore storage, shore equipment and instrumentation;
- Safely perform and monitor all cargo operations.

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Information Technology Department

The Information Technology Department is the administrative unit with technological responsibility to provide distinguished consultations, and IT solutions in order to help College students and staff to achieve their institutional goals in an easy, accurate, productive, and compact way through the effective and secure use of technology

Objectives

Information Technology Department identified the following objectives to accomplish CMTT goals:

- Improve and enhance access to online information resources.
- Activate information technology education and learning.
- Enable access to educational resources by using portable technologies.
- Evaluate the use of technology to increase effective solution to the College needs.
- Provide business process documentation

Leadership Education Department

In addition to technical proficiency, working on-board ships requires a high degree of discipline and knowledge of the art of leadership. Hence, the objective of 'Leadership Course' is to install in the students a sense of responsibility and self-dependence in addition to enhancing the traits and skills a leader should have.

Leadership Schedule

- Students shall attend leadership parade for three days, and the morning flag salutation parade for five days, every week throughout the study period.
- The leadership parade begins at 7.20 and ends at 8.00 am
- The morning flag salutation parade begins at 8.10 and ends at 8.25 am.

Attendance

Student shall attend all leadership parades and all flag salutation parades since calculating success scores in this course depends on the student's attendance percentage and abiding by schedule.

Discipline Department

The College of Maritime Transport and Technology depends on two pivots: Science and Discipline in the process of qualifying an excellent marine officer of a distinguished personality, which determines the chances of employment in the maritime industry market.

Discipline By-law Familiarization

The discipline by-law has been developed to inculcate the principle of discipline in the cadets with a view to improving their efficiency when serving on-board merchant marine ships. It is based on the principles of fair treatment and accurate assessment of all students, and rewarding excellent students to motivate them and install in them a sense of pride in, and belonging to, their profession.

The Discipline By-law is based on:

- The principle of graded penalties for offences,
- Determining the authorities in charge of imposing penalties and granting rewards.
- Notifying parents of their sons'/daughters' violations with a view to amending matters.

General Rules

- Each student shall be assigned 100 marks for discipline in every semester. The student who gets below 50% of discipline marks shall not be allowed to sit for the end of semester examination.
- When losing 15% of discipline marks, the student shall be notified and shall sign a first warning; when losing more than 30% of discipline marks, the student shall be notified and shall sign a second warning; and when losing more than 40% of discipline marks, the student shall be notified and shall sign a final warning, in the case of which his parent shall be called to meet the concerned authorities.
- A student has the right to complain in writing to the concerned personnel in the chain of command if he feels that he was unfairly punished.
- A student shall suffer another penalty in case of raising a false claim.
- A summary of the discipline By-law shall be distributed to the students and their parents during the discipline guidance period before the beginning of the semester.

- Parents are requested to be in constant contact with the concerned personnel of the College of Maritime Transport and Technology throughout their sons'/daughters' period of study through the telephone numbers and addresses recorded in the student's register. In case of change of particulars, parents shall notify the College of the mentioned change, in the case of which the student and his parents shall bear the responsibility of maintaining contact.

Rewards

- Granting discipline badge to the disciplined students.
- Including the names of disciplined students in the College Honor Board.
- Promotion to leaders.
- Nominating the semester exemplary student.
- Granting rewards (financial rewards / in-kind rewards / free trips)
- Awarding Recognition Certificate.

Physical Education And Sport Science Department

Introduction

Based on the vision of the president of arab academy for science and technology and maritime on the pivotal role played by the physical education in the construction of a college of maritime transport and technology student, and contribute to the qualifying as the right base from which full verification programs to prepare students physically and mentally and intellectually in a manner that keep pace with the latest reached by preparing workers in the field of maritime transport programs and in accordance with international treaties in the field of maritime transport issued by the maritime safety organization, IMO, it has the department of physical education and sports science faculty of maritime transport and technology to establish a mechanism and a new vision to upgrade the material of physical education and taught college students including the development of planned programs to increase physical health and efficiency and provide students with the skills they mean to face the different attitudinal factors that may face during his career at sea.

As the department by selecting a group of cadres trained and qualified at the highest levels that can achieve the goals that seeks to achieve section , which had a great impact on the improvement of physical and health level of the students and stressing in this regard that presented during this first semester 2016/2017 but is the first building block to change the concept of the student towards the sport of being a philosophy of life and the necessity of maritime labor would in as do other marine science that students must be familiar with.

Vision

The Department of Physical Education and Sports Science at the College of Maritime Transport and Technology to provide scientific and research services in the field of sports contributes to the develop students and refining their physical and mental abilities, through dissemination of sports concepts in order to have abilities, characteristics and skills and familiar with the basic theories of sports science and its applications commensurate with their responsibilities , role and functional skills to match the requirements of the labor market in the field of maritime transport, in addition to the dissemination of values and traditions of high sports.

Mission

Providing high quality academic programs governed by local and international standards to prepare the students of the College of Maritime Transport and Technology in a manner that complies with the requirements of the labor market and international conventions of the IMO, and to open new horizons for scientific research in the sports field by linking sport science with maritime science. Scientific and academic cooperation with the different faculties in the Academy, in order to contribute to the provision of scientific programs and academic excellence in keeping with the scientific development in various global areas in addition to the achievement of continuous training and increased cooperation with educational institutions and sports in and Outside Egypt.

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Objectives

The Department of Physical Education and Sports Science at College of Maritime Transport and Technology aims to:

- Formulating advanced scientific courses to improve students' physical, mental and psychological abilities and to meet the needs of the labor market in the field of maritime transport through the development of distinguished academic programs in the field of sports that contribute to the provision of a new academic product.
- Develop sports programs and activities to ensure the investment of the potential of the students of the Faculty of Maritime Transport in the fair exercise of sports activity and strengthen links with Egyptian universities, Arab and international educational institutions and various sports organizations.
- To contribute actively to the formulation, construction and evaluation of maritime transport students in the field of other sciences and their association with sport and the dissemination of awareness and mathematical concepts in order to achieve a global competition.
- Effectively contribute to the formulation and construction and evaluation of maritime transport students in the field of other sciences and its relation to sport and to raise awareness of sports and concepts in order to reach a global competition.

Training and Community service

Meteorology and Hydrographic Survey Program

Historically, the program was established in November, 1995, as a Meteorology Program mainly to provide trainings, workshops and conferences as well as technical assistance. In March, 1996 the program became an observer member in the Permanent Arab Committee on Meteorology & its Sub-committees in the League of Arab States and the program participates in its regular meetings. The program also attends the meetings of the World Meteorological Organization (WMO).

In December, 2013, the Hydrographic Survey was added to the Program activities & its name became "Meteorology & Hydrographic Survey Program". In 2017, the Hydrographic Survey Program was recognized by the International Hydrographic Organization.

The program is in continuous development phase. Now, it hosts different disciplines such as Meteorology, Hydrographic Survey, Petroleum Geology and GIS, which attracts specialists in the Arab region to deal with environment, climate change and maritime navigation and to carry out state-of-the-art research and teaching in the field of meteorology.

The program utilizes modern technology in the educational process to achieve and provide the appropriate and congenial academic environment for the students.

Meteorology is an observational science where meteorologists interpret observations from the land's surface, oceans, and from the upper atmosphere to forecast weather.

This is done using specialist computer programs designed to make both short and long-term predictions of weather and climate. The predictions are used in the air transport industry, the defense industry, public utilities, and commercial organizations (such as retailers and event organizers) as well as for public interest through television, radio and the press.

Meteorologists are also widely involved in research into understanding and predicting climate change and into understanding and improving models of weather prediction. When looking at a weather map, a meteorologist needs to know where the cold air is, where the warm air is, where it is raining, what type of clouds are in the area, and many more things.

The reason for this is that forecasts need to be accurate. But, they also need to be timely. If too much time is spent making the forecast, it will be late. Not many people want to know what the weather was like twenty minutes ago. Most people want to know what the weather is going to do in the near future. Because of this, weather symbols were invented so that weather maps could be looked at in a short amount of time.

Meteorology & Hydrographic Survey Program offers the following Training courses in the area of Meteorology and Oceanography and their related Disciplines (the Courses follow instructions of the World Meteorological Organization (WMO), the International Civil Aviation Organization (ICAO) as well as the international Organization related to the same subject):

- Operational Meteorology,
- Advanced Weather Forecasting,
- Aeronautical Meteorology,
- Meteorological Observation Techniques,
- Agricultural Meteorology,
- Weather Forecasting with the Use of Marine Weather Charts,
- Atmospheric & Ocean Modeling,
- Tides and Currents for Mariners,
- Principals of Satellite Meteorology,
- Regional Climate Model,
- Weather Routing,
- Basic Meteorology,
- Introduction to Observational Physical Oceanography,
- Waves Analysis & Forecasting,
- Marine Pollution,
- Oil Spill Risks, Effects and Cleanup,
- Data Analysis in Meteorology & Oceanography,
- Climate Change & Navigation,
- Environmental Impact Assessment,
- Tides,
- Ocean Currents,

- Principles of Oceanographic Instrument Systems-Sensors and Measurements,
- Meteorological Observers in Support of Offshore Helicopter Operations,
- Meteorological Observations and Instruments.

In addition, the Program operates an Automatic Weather Station (AWS):

An automatic weather station (AWS) is an automated version of the traditional weather station, either to save human labor or to enable measurements from remote areas. An AWS will typically consist of a weather-proof enclosure containing the data logger, rechargeable battery, telemetry (optional) and the meteorological sensors with an attached solar panel or wind turbine and mounted upon a mast. The specific configuration may vary due to the purpose of the system. The system may report in near real time via the Argos System and the Global Telecommunications System, or save the data for later recovery. In the past, automatic weather stations were often placed where electricity and communication lines were available. Nowadays, the solar panel, wind turbine and mobile phone technology have made it possible to have wireless stations that are not connected to the electrical grid or hardline telecommunications network.

Sensors:

- Thermometer for measuring temperature,
- Anemometer for measuring wind speed,
- Wind vane for measuring wind direction,
- Hygrometer for measuring humidity,
- Barometer for measuring atmospheric pressure,
- Rain gauge for measuring liquid-equivalent precipitation.

Hydrographic Survey is the branch of applied sciences which deals with the measurement and description of the physical features of oceans, seas, coastal areas, lakes and rivers, as well as with the prediction of their change over time, for the primary purpose of safety of navigation and in support of all other marine activities, including economic development, security and defense, scientific research, and environmental protection.

The Importance of Hydrographic Survey. In addition to supporting safe and efficient navigation of ships, hydrography underpins almost every other activity associated with the sea, including:

- Resource exploitation - fishing, minerals, ...
- Environmental protection and management,
- Maritime boundary delimitation,
- National marine spatial data infrastructures,
- Recreational boating,
- Maritime defense and security,
- Tsunami flood and inundation modeling,
- Coastal zone management,
- Tourism,
- Marine science

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Meteorology & Hydrographic Survey Program offers the following training courses in the area of Hydrographic Survey and its related Disciplines (the Courses follow instructions of the International Hydrographic Survey (IHO) and the International Federation of Surveyors (FIG) as well as the international Organization related to the same subject):

- Hydrographic Surveyor,
- Professional Diploma In Hydrographic Survey II,
- Professional Diploma In Hydrographic Survey I,
- Hydrographic Surveys for Ports and Harbors II,
- Hydrographic Surveys for Offshore Construction Hydrography II,
- AUTOCAD.

Geographic Information System (GIS) is a computer system designed to capture, store, manipulate, analyze, manage, and present all types of geographical data. The acronym GIS is sometimes used for geographical information science or geospatial information studies to refer to the academic discipline or career of working with geographic information systems and is a large domain within the broader academic discipline of Geoinformatics.

GIS lets us visualize, question, analyze, and interpret data to understand relationships, patterns, and trends. GIS benefits organizations of all sizes and in almost every industry. There is a growing interest in and awareness of the economic and strategic value of GIS.

Meteorology & Hydrographic Survey Program offers the following training courses in the area of Geographic Information System (GIS) and its related Disciplines:

- Introduction to GIS,
- Advanced GIS,
- Introduction to Marine GIS,
- Using GIS to safely and effectively navigate shipping movements.

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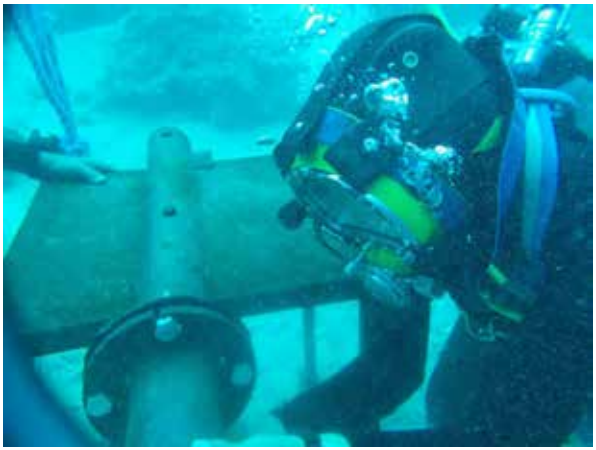
Diving Program

Diving is now considered one of the main activities and jobs in the offshore and inshore industries. Offshore industry is one of the most important economical sources around the world. Diving is now also considered a main branch in several activities, including, but not limited to, civil engineering works, harbour works, tourism, etc. The program has been offered in the College of Maritime Transport & Technology since September 1993. In addition to commercial diving, the program offers tailored courses in diving and recreational diving



Objectives

The diving program prepares well-qualified divers who can play a significant role in offshore industries and all other underwater tasks. The Standards of training are in conformity with international standards and are approved by:

- International Diving Schools Association (I.D.S.A.) for commercial training.
- Confederation Mandible Des Activities .Subaquatiques (World Under Water Federation) (C.M.A.S.) for Recreation Training.
- Professional Associated Diving Instructor (P.A.D.I.) for Recreation training
- And also is equivalent to the British H.S.E., and IMCA standards of training for commercial training.
- And also Egyptian Authority for Maritime Safety.

Job Opportunities:

- The graduates of the commercial diving program can work in various fields, including civil engineering works, harbor works, and the vast offshore industry market.
- The graduate of the tourism recreational program can work in any of the two hundred local diving clubs and centers and qualify for higher posts, and join any International Diving Center around the world.

Commercial Diving Courses Conducted In Diving Program:

- Surface Supply Air Diver (Offshore - 50 M) duration 12 weeks.
- Surface Supply Air Diver (Inshore - 30 M) duration 10 weeks.
- Professional Scuba Diver Course - 30 m duration 6 weeks.
- Underwater Videography & Photography duration 3 weeks.
- Underwater Cutting And Wet Welding duration 3 weeks.
- Underwater Inspection (3.1u Cswip) duration 2 weeks.
- Underwater Inspection (3.2u Cswip) duration 2 weeks.
- Diving Supervisor (Offshore -50 M) duration 2 weeks.
- Diving Supervisor (Inshore- 30 M) duration 2 weeks.

Recreational Diving Courses include:

Confederation Mandible Des Activities Subaquatiques (World Underwater Federation) (C.M.A.S.)

- One star diver course.
- Two Star diver course.
- Three stars diver course.
- Instructor one star.
- Instructor two stars.

Professional Associated Diving Instructor (P.A.D.I.)

- Open Water diver course
- Advanced Open Water diver course
- Emergency First Response (E. F. R.)
- Rescue Diver course
- Dive Master Diver course

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Maritime Hotel Center

Maritime Hotel Center was established in 1983 to provide Hotels, Nile cruises, Hotel resorts and Merchant ships with Hotel competent graduates. Graduate will obtain a degree equivalent to Ministry of higher education Hotel Institutes according to Education Minister Degree no 223/1992 which allow graduates to work for national and foreigner Hotels and obtain a maritime safety measure certificate.

Study Advantage

- The center will provide students that graduates with training opportunities in 5 stares famous hotels and foreign ships, as excellent
- Graduate will obtain a high professional diploma which is approved from Ministry of higher education no223/1992 which allow graduates to accomplish his study to obtain the Bachler degree
- The program of study lasts for 4 semesters based on a credit hours system
- High professional diploma is approved and certified by Supreme Councilor of universities and Postpone military service to the age of 25.
- The center provides graduates with the possibility of obtain a Bachelor degree at Egyptian Hotel and Tourism universities and institutes or Arab Academy for administration and technology – tourism and hotel department.
- The center qualifies the graduates to obtain a maritime passport.

Food and Beverage Production Department

- Students will learn special culinary and food production skills include the kitchen three sections: Hot &cold kitchen and dessert and bakery sections.
- The study will include an intensive practical training in a modern well- equipped kitchen with high quality ingredients according modern Hotel measures, as well as training in 5 stars Hotels

Code	Subject	Cr.
MH111K	Food production (1)	3
MH112K	Bakery production (1)	3
MH113	English Language (1)	2
MH114	French Language (1)	2
MH115	Marine Safety	2
MH116	Food & Beverage control	2
MH117	Introduction to the Hospitality	2
MH118	Receiving & Storing raw Material	2
MH121K	Food production (2)	3
MH122K	Bakery production (2)	3
MH123	English Language (2)	2
MH124	French Language (2)	2
MH125	Hospitality Environment	1
MH126	Hotel Cost	3
MH127	Hotel Equipment	2
MH128	Front Office	2
MH129	Practical Training	2

Code	Subject	Cr.
MH211K	Food production (3)	3
MH212K	Bakery production (3)	3
MH213	English Language (3)	2
MH214	French Language (3)	2
MH215	Introduction to Computer	2
MH216	Hospitality Marketing	2
MH217	Hotel Legislation	2
MH218	Food Quality Control	2
MH221K	Food production (4)	3
MH222K	Bakery production (4)	3
MH223	English Language (4)	2
MH224	French Language (4)	2
MH225	Computer	2
MH226	House keeping	2
MH227	Hospitality Accounting	2
MH228	Humanities	2

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Food and Beverage Service Department

- Student will get varieties of modern art food services, Trainings equivalent 5 stars hotels.
- Student will get service training in banqueting and conferences service and learning the assets of the protocol and ceremony.
- The center has a modern and well-equipped restaurant for the practical demonstrations.

Code	Subject	Cr.
MH111	Food Service Operations (1)	3
MH112	Beverage Service Operations (1)	3
MH113	English Language (1)	2
MH114	French Language (1)	2
MH115	Marine Safety	2
MH116	Food & Beverage control	2
MH117	Introduction to the Hospitality	2
MH118	Receiving & Storing raw Material	2
MH121	Food Service Operations (2)	3
MH122	Beverage Service Operations (2)	3
MH123	English Language (2)	2
MH124	French Language (2)	2
MH125	Hospitality Environment	1
MH126	Hotel Cost	3
MH127	Hotel Equipment	2
MH128	Front Office	2
MH129	Practical Training	0
MH211	Food Service Operations (3)	3
MH212	Beverage Service Operations (3)	3
MH213	English Language (3)	2

Code	Subject	Cr.
MH214	French Language (3)	2
MH215	Introduction to Computer	2
MH216	Hospitality Marketing	2
MH217	Hotel Legislation	2
MH218	Food Quality Control	2
MH221	Food Service Operations (4)	3
MH222	Beverage Service Operations (4)	3

Code	Subject	Cr.
MH223	English Language (4)	2
MH224	French Language (4)	2
MH225	Computer	2
MH226	House keeping	2
MH227	Hospitality Accounting	2
MH228	Humanities	2

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Training programs that provided by the center

Training cooks on ships		
No.	Course Title	Days
1	Food safety on ships	3
2	take precautions to prevent pollution of marine environment	3
3	Knowledge of ingredients &stock control	3
4	Multi- culture and religious awareness	3
5	Practical Cooking abilities on ships	4
6	Observe general galley safety procedures	3
7	HACCP on Ships	3
8	Observe health & food hygiene practices	

Training programs for restaurants		
No.	Course Title	Days
1	Food safety in restaurants	3
2	The art of service and customer satisfaction in restaurants	3
3	Cookery Specialist	4
4	Program control food and beverage	4
5	Food and beverage service	4

Training programs for hotel management		
No.	Course Title	Days
1	Front Office	3
2	Housekeeping	3
3	Management of profit &loss	3
4	Project management of hotel	3
5	Management and operation of hotel services department	4
6	Promotion and marketing of tourism	5
7	Development of managerial skills for food and drinks	4
8	Tourism as a career guidance process moving	4

Programs in human skills		
No.	Course Title	Days
1	Communication skills with customers and control the pressure	3
2	Time management skills and the power of self-control	3
3	the art of etiquette and protocol	6
4	The skills of the art command and control	12

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Laboratory Facilities

Computer Lab

Computer technology is now available to help Nautical officers and Marine engineers at sea, so today's marine training must include a good foundation in computer skills. College of Maritime Transport and Technology prepares students for the increasing usage of computer systems aboard merchant vessels; the College offers several computer skills courses focusing on Office Automation, English Language Skills, Computer-aided Drafting and Data Acquisition and Analysis.

Lab Facilities

A modern computer laboratory equipped with high performance servers is available in the campus.A wealth of software and several operating system platforms provide extensive opportunities and capabilities for info-tech training as well as the use of modern teaching methods like simulation and computer based instruction. In addition to standard office software, AutoCAD and scientific tools are available.

Lab Usage

- Accredited ICDL Test
- CAD Design Lab
- Office Automation Training Lab

English Lab

The English Language Lab is considered one of the basic tools in the process of education and maritime training due to the importance of the English language: "the main language in the maritime field" as an essential element in marine safety and as a communication key between the human element on-board ship and between ships and ground stations. The College of Maritime Transport and Technology provides an English Language Laboratory that complies with the requirements of "Maritime Amendments of the STCW Conventions, 2010" regarding the training of students to communicate using Maritime English through using the most updated technology in laboratories installed in the international institutes and Marine Colleges in order to rehabilitate the Maritime student to be up to the appropriate standard of the Maritime training phase on-board ships and to teach students the proper linguistic capability to communicate in English, whether in the bridge or on deck.

Lab Facilities

- Computers
- Data show
- Internet access

Lab Usage

- Video viewing
- Listening practice
- Pronunciation correction

Physics Lab

The Physics Laboratory is a facility to the students of the College of Maritime Transport & Technology. This well-equipped laboratory is available for undergraduate students. The following experiments are conducted in the Physics Laboratory:

- Inclined Plane.
- Parallelogram of Forces.
- Compound Pendulum.
- Hooke's Law.
- Tangent Galvanometer.
- Measuring Current and Voltage at Resistor Connected in Series and in Parallel.
- Photoelectric Effect.
- Maul's Law of Polarization.

Student Facilities

Libraries

Ever since it was founded in 1972, the Arab Academy for Science & Technology, and Maritime Transport (AASTMT) has saved no effort in supporting the educational process. Because academic libraries play a major role in supporting the educational activities and enriching the academic life of the students and faculty members, AASTMT established a specialized library in order to make use of the information published in different media.

Due to the change in the role libraries play in the information field in general, and the academic field in particular, the Library's name changed to «Libraries & Information Services Center»: A change that was crucial due to the emergence of new information resources - in addition to books - and the growing reliance on diverse information sources that meet users' information needs.

The Nautical Library in Abu-Qir campus serves the Nautical Specializations of the College of Maritime Transport and Technology. It comprises a collection of the latest publications in the maritime field which consist of (3548) titles, (406) Dissertations, (19) Periodicals, as well as all 489 (332 Conventions – 121 IMO Circulars – 36 Resolutions) International Maritime Organization (IMO) publications (print and on CD-ROM) as the AASTMT's Maritime Library is a depository library of IMO publications.

The Nautical Library can host up to (50) users at the same time.

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International Forum for Maritime Transport (IFMT)

About IFMT:

- Targeting to unify the Maritime entities with joint goals in order to establish a unified integrated entity, capable of meeting the demands of the International Maritime market, through establishing a partnership between education, training and the maritime industry.
- Strategic planning to maximize the participation of the Arab Academy for Science, Technology and Maritime Transport (AASTMT) in the maritime industry at the regional and international level and Maritime stakeholders such as maritime institutions, organizations, companies, bodies and maritime authorities.

Objectives:

- Organizing conferences, seminars and educational sessions, participating in conferences and seminars related to the Forum and members' activities, providing technical information related to the various fields of maritime transport, and issuing bulletins, magazines and periodicals.
- Enhancing relations between organizations specialized in maritime transport in addition to providing an advanced information and documentation system that helps achieve continuous communication between the Forum members and comprises specialized databases.
- Seeking to establish direct and effective communication channels among the Forum members by exchanging delegates and between the Forum members and the Academy by providing permanent offices for them in the Academy premises.
- Selecting students to enrol according to the criteria of their supporting organizations and giving the achievers training opportunities on-board ships belonging to the Forum members so that they are qualified to work on the same ships later.

- Giving maritime institutes staff members the opportunity to board the ships administered and operated by the Forum members on short voyages to keep pace with the latest developments.
- Conducting and funding research, preparing economic feasibility studies for future projects, providing communication guidelines with specialized Arab and foreign consultancy bureaus with the aim of providing and updating the technical, economic and commercial information and statistics associated with maritime transport industry.
- Maintaining strong relations with Arab and international entities so as to achieve integration between the maritime transport industry and related industries.

Maritime Career Center (MCC)

The Maritime Career Center at the Arab Academy for Science, Technology and Maritime Transport (AASTMT) is dedicated to helping deck/engine cadets and maritime alumni by offering an array of services and resources to aid in all facets of career planning and recruiting.

The Maritime Career Center (MCC) under the IFMT seeks to bridge students/graduates from their roles as maritime academic learners to their roles as productive graduates with fulfilling shipping industry careers. At Career and Professional Services, we put our academic motto, Learn-Do-Learn, into practice by focusing on shipping and offshore career development.

Staff is available to assist candidates in Resume Building, Interview Skills, Career Development Workshops, Career Counseling and a myriad of other Maritime Career Related Resources.

MCC MISSION: Through partnerships with Employers and Career Services, The AASTMT Maritime Career Center on nonprofit bases assures all students/graduates are provided the opportunity to realize their career goals.

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MCC can help with employment needs for free as follows:

- Recruitment: recruiting junior officers/ engineers on commercial vessels and offshore units after interviewing process to comply with the employer's criteria.
- Cadet-ship Program: we're committed to recruit cadets to train on board for 6 or 12 months as per the agreement with the employer.
- Job Shopper: posting of opportunities for students and maritime alumni.
- Presentations: come to campus to present your company to students and maritime alumni.
- Maritime Career Fair: dates to be advised.
- Email: we can send select groups of students/ maritime alumni an email by major on your behalf.

General Facilities

Medical Care

The academy established several clinics in its various locations to provide the best healthcare and medical services to its students, faculty members and staff to ensure smooth running of the educational process. These clinics cover all medical specializations, with best specialists, consultants, nursing staff, and using latest diagnostic and therapeutic equipment.

Some potential clinic services and equipment were developed in some specializations such as the dental clinic (b), which has been provided with a new dental unit to the latest model, including a radiation machine

Some equipment was also introduced in the field of ocular specialization in an attempt to improve medical services granted for patients.

Clinic Departments:

- Cardiology Clinic.
- Dental Clinics.
- Dermatology Clinic.
- Emergency Clinic.
- E.N.T Clinics.
- General and Vascular Surgery Clinic.
- Gynecology and Obstetrics Clinic.
- Internal Medicine Clinics
- Orthopedic Clinics.
- Ophthalmology Clinic.
- Urology Clinic.
- Medical Laboratory
- Health education and public health unit
- Emergency and First Aid Training unit

Food Services

AASTMT provides food services for students, staff, and visitors on campuses. Restaurants and Cafeterias are designed to serve the main meals and snacks all week days, and provide catering services for special events. The students residents on campus are served three meals daily during their full time stay at the Academy hotel.

Our objective is to offer wide variety, great service and a high quality dining experience.

Restaurants Capacity

The number of students is 1100 students. and according to that, The Academy's Restaurants and Halls were established to contain these numbers of students and guests as the following:

- The old attached hall capacity is 220 students.
- The new attached hall has a capacity of 200-250 guests.
- The main hall restaurant accommodates 550 students.

Served Meals' Schedule

The meals' schedule was determined to provide food meals during times which do not conflict with the students' activities within the academy and also it was planned to contain another time to provide meals for late comers to ensure that we provide all students with the necessary food rations needed to support their daily activities

- Breakfast: 7:00 a.m. - 8:30 a.m.
- Lunch: 12:30 a.m. - 3:00 p.m.
- Dinner: 6:30 p.m. - 8:30 p.m.
- The old attached hall is open to receive late comers at lunch period from 4.00: 5.00 p.m.

Students Dorms

AASTMT built 4 student hotels within the Abu Qir campus. All the hotels provide 4 stars accommodation along with world class restaurants. Single and double rooms are available. A separate hotel for girls was built on the campus as well. All the hotels are built to the highest standards, and are maintained by professional staff.

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Cultural and Social Activities Guide

Cultural and social activity is considered to be one of the most important means and methods of developing the student's personality, as it aims at supporting the positive trends and eliminating the negative trends of the student, and also aims at modifying the student's behavior.

This happens through learning the social, cultural and technical skills through increasing the student's creative and innovative abilities, and by providing the opportunities for the student to form positive social relationships with his peers.

This helps form the student's personality and enables him to establish successful relationships with the others. Thus, it leads to reach the maximum possible adjustment of the student with the surrounding environment, which increases his love and affiliation to the Academy and pushes him towards caring about his study, which helps the student reach the scientific excellence and become a special graduate who is fit for the job.

Some of the most important cultural and social activities provided by the department of Cultural and Social Activities are:

- Social and entertainment trips, fine arts, acting and performing arts, music and singing, cultural competitions, cultural and artistic seminars, press, poetry, writing and publishing, wall magazines and printed magazines, blood donation campaigns, and concerts for orphans care.
- Since the Academy includes different nationalities, the Department of Cultural and Social Activities is keen on organizing an annual festival including different countries in order to strengthen the relationships between nations and explore different cultures.

Sports Activities

The Academy provides students of all majors and departments with sports activities. The Abu Kir campus has high potential for students to exercise all kinds of sports (such as football, basketball, volley ball, table tennis, swimming, rowing, sailing, gymnasium, etc.). All such services are also offered in other Cairo campuses in agreement with neighboring clubs.

There are two fully equipped Gymnasiums at Abu Qir Campus. They include saunas and massage facilities as well as all the standard equipment. Professional staff supervises the operation of the facilities and gives guidance to the trainees. Fitness assessments including body fat analysis, and cardiovascular, muscular, and flexibility tests can be carried out at the Gym, Personal fitness training is available to students and members by the session and is focused on teaching beginning, intermediate, and advanced exerciser the proper techniques and habits in order to reach their desired fitness goals.

Banking Services

Banque du Caire is located inside Abu Qir campus to facilitate bank transactions for the students as well as the employees. It offers full banking services such as money transfers for foreign students.

Online Exam Results and Absence Percentages

The Academy offers students the possibility to check their exam results online. By getting their secret number (PIN No.) from the Deanery of Admission and Registration, students can check the web for their results in the 7th week and the final term exams for all courses in which they registered, once these results are entered on the account. They can check their academic record and all their previous results. They can also complete their registration process via the internet.

Parents/guardians can follow up the attendance and course absence percentages of their student relatives via the internet. All the Academy's academic information is available on the internet: (specializations - curricula for all departments study commencement dates and vacations - summer courses tuition fees). Students' Services and Activities are available online: (Accommodation – food services – trips – courses training opportunities – jobs for graduates)

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Supporting Units

Sea Training Institute

Sea Training Institute was established in 1974 with a view to organizing and supervising the training of the students of both the Nautical Studies and Marine Engineering Departments of the College of Maritime Transport and Technology after completing the period of basic studies. Thus, it is the entity responsible for practical training at sea which is conducted on-board the training ship 'AIDA IV' (Guided Sea Training) and on-board commercial ships (Planned Sea Training) with respect to setting the training programs in addition to preparing, outfitting, supervising, evaluating and registering the training process in coordination with the other educational and administrative departments. It is also responsible for outfitting the training ship for its training and educational voyages.

The Sea Training Institute also includes the Maritime Centre for Training and Sailing which was established especially for the purpose of training the students of the College of Maritime Transport and Technology in various marine sports such as sailing, rowing and yachting.

Maritime Safety Institute (MSI)

The Maritime Safety Institute was established to provide seafarers in Egypt and the Arab and African countries with the safety drills necessary to work at sea. The Maritime Safety Institute occupies an advanced position in the field of providing the cadres working in the maritime transport industry with the chance to learn and get trained in maritime safety according to the regulations and laws governing this field by improving the skills of personnel in maritime safety by complying with all the relevant international regulations such as the safety requirements in the Petroleum industry according to the management of education criteria accredited by Offshore Petroleum Industry Training Organization (OPITO).

Upgrading Studies Institute

This institute is responsible for qualifying and training deck officers and marine engineers to obtain the specialized maritime certificates which qualify them to work on-board ships and carriers of all types. The Institute makes use of theoretical studies, laboratories and workshops in addition to simulation to help students master all types of scientific applications. It merits mentioning that the Institute qualifies deck officers and marine engineers to serve on board specialized ships which require mastery of special scientific and practical techniques. The Institute holds special training sessions in these important and various fields.

Maritime Security Institute

The Regional Maritime Security Institute (RMSI) was established in September 2003 to serve Egypt and all the countries in the region to implement the requirements of the International Ship and Port Facility Security (ISPS) Code. The Regional Maritime Security Institute has been approved as a recognized institute for security by the Egyptian Authorities in the Kingdom of Saudi Arabia, Lebanon and the United Arab Emirates.

The Institute provides a wide range of activities covering training sessions and conferences similar to the ones provided by the International Maritime Organization (IMO). The Institute also organizes and participates in the conferences and workshops concerned with maritime security, in addition to assessing the compliance of ships, ports and port facilities with international requirements.

Oil and Gas Institute

The Academy has been keen on establishing an institute for oil and gas to provide training and consultation for companies and organizations operating in the field of petroleum at the international level. The Institute provides the following:

- Training sessions.
- Consultation and technical solutions.
- Research and development activities.

Postgraduate Maritime Studies Institute

The Postgraduate Maritime Studies Institute was established in the College of Maritime Transport and Technology and has been operating since 1994 to concentrate on scientific research in the various fields of maritime transport. The idea of establishing the Postgraduate Maritime Studies Institute in the Academy is attributed to the growing regional and international role of the Academy and the increasing need to immediately cope with the ongoing changes and developments in the maritime industry to remedy any inadequate research areas in the maritime research fields at the local level and in the Arab world and Africa and to improve the scientific and technological standard of personnel working in the maritime transport field by offering the following study programs:

- Higher Diploma program in: Marine Surveying / Surveying Cargo / Maritime Transport Technology
- M.Sc. program by study courses
- M.Sc. program by research
- Doctorate program in Maritime Transport Technology

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Examination Center

The Academy has been working hard since its establishment to improve examination systems by cooperating with maritime educational institutions and specialized consultants in order to cope with the technological developments in this profession, which culminated in the establishment of an independent unit for examinations in 1979, with particular emphasis on the following concepts:

- Setting the necessary controls to comply with the criteria and regulations prescribed by the International Maritime Organization for the various marine certificates.
- Commitment to conduct the examinations according to the regulations and by-laws stipulated by the Government of the Arab Republic of Egypt which issues the marine certificates of competency.

Integrated Simulators Complex (ISC)

The ISC was established in 1994 for the purpose of providing training and simulation in Arabic and English to the professionals working in maritime industries and oil industry in the Middle East area and the rest of the world.

Due to the full utilization of the latest simulators technology, the ISC provides the latest training methods in marine fields: oil spills, Global Maritime Distress and Safety System (GMDSS), Liquefied Natural Gas (LNG), Dynamic Positioning and Oil fields services.
In addition to:

- Compiling databases and researches management unit.
- The ISC provides invaluable assistance for researchers engaged in M.Sc. and Ph.D., in addition to guiding other trainees by holding operation and management training sessions using the highest service quality criteria to help them obtain the required certification and training according to the instructions of the various Registration and Accreditation agencies.

International Maritime Organization Compound (IMO Compound)

Due to the importance of the new role the International Maritime Organization plays and its impact on the activity of the Arab Maritime Transport and its international effective performance, the Academy did envisage what benefits the Arab Maritime Transport in an atmosphere of continuous developments. Thus, the Academy established the IMO Compound to serve the Arab world and Africa in the field of maritime technical cooperation at the international level that they may be ready to meet the rapidly increasing international requirements. The Compound was inaugurated by the IMO Secretary-General and His Excellency the Egyptian Minister of Transport in August, 2005.

Within this context, and considering that the Academy represents the League of Arab States in the International Maritime Organization according to the decree of the Arab Ministers of Transport, the IMO Compound coordinates with IMO on any local requirements the Arab countries may require full technical support to meet.

Service Centers

The idea of establishing the academic services center was presented to the President of the Arab Academy. It focused on the idea that theCenter will serve all academy slices, especially staff members and students . All measures for the establishment of this center were approved. All establishment procedures and approvals were obtained from all sides and the Center was established in six months.It merits mentioning that this Center, which provides various services within a specialized organization, is the first of its kind at the level of the Republic, .

Information and Documentation Center(IDC)

Academy Information and Documentation Center (IDC) was established in 1983. The main objective of IDC is to develop administrative and management information systems that help users and managers in different departments of the Academy to do their work in an easy, accurate, productive, and compact way. The IDC has developed Information Systems for main Academy sectors, for example, Registration, Student Affairs, Education, Finance, Logistics, Human Resources, Colleges, etc. More than 600 personal computers in colleges and different departments in Miami, and AbuQir campuses in Alexandria, and in Sheraton and Dokki campuses in Cairo are connected to our main servers through our local and wide area networks.

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Computer Networking Center

Computer Networks and Data Center (CNDC) provide a structured environment that effectively coordinates operational activities with all network users. CNDC services extend to all faculty members, administrative staff, students and classroom activities to provide services that meet the Academy's goals.

CNDC manages a wide range of services like wired and wireless Internet, Email, IT support, Video Conference, SharePoint and others. It also provides a tier-one network support for each campus as well as a wide area network to AASTMT regional campuses. While providing these services, CNDC offers oversight of problem, configuration and change management, network security, performance and policy monitoring, reporting quality assurance, scheduling and documentation.

Multimedia Center (MMC)

Founded in 1995, MMC is an integrated multimedia production house specialized in the development of educational and training multimedia courses on the Internet, CD-ROM, and DVD-ROM.

The MMC in Alexandria is considered one of the largest specialized centers that produce interactive educational programs in the Middle East . MMC main expertise is the development of educational and training e-learning and multimedia courseware. E-learning and e-training multimedia integrated courseware packages are prepared on the Internet (WWW), Intranets and CD-ROM discs. CD/online hybrids are also produced to make use of the strengths of both environments speed of multimedia on CD-ROM and online updating and dynamic performance of the Internet.

The several successful projects witness an increasing success in the emerging field of multimedia and e-learning production, which can be justified by focused planning, creativity, innovation, and a highly qualified team.

As an integrated studio, the center furthermore offers other services in design, printing, audio recording and editing, and video capturing and editing. The Center comprises a number of specialized departments:

- Instructional design
- Graphic design & illustrations
- 2D & 3D animation
- Video
- Audio
- Programming
- Planning and quality assurance
- Research, development and technical support

Computer Service Center

We are living in a world of technological advances, therefore the Computer Services Center - one of the Arab Academy for Science,Technology and Maritime Transport entities - was established in January 2000 in order to provide opportunities within the job market by taking positive action and gaining new skills or updating current skills.

The Computer Services Center provides graduates, undergraduates and employees with the knowledge and modern skills to meet the requirements of the labor market in the field of information technology and communications, etc., and also raises their level of competency in essential IT and computer skills, improves their productivity at work and job prospects, and provides an internationally recognized qualification to strengthen their future in a world full of business which is accelerating and evolving every day,

The Computer Services Center brings efficient certified trainers in the field of computers who enable students and employees to access scientific and practical interests which qualify them to all the new careers available in the market

Regional Information Center

As a new contribution in its leading role in offering higher education standards and spreading information technology, the Arab Academy for Science,Technology and Maritime Transport established the first Regional informatics center in the Middle East and North Africa

RIC organizes the following:

- Training courses in informatics and robotics.
- Workshops and exhibitions in the robotics field.
- The Egyptian Olympiad in informatics.
- The Robokids completion in Robotics and Artificial Intelligence.

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Authentications of the Foreign Affairs Ministry

This service is the culmination of the role of the Academy's education and training to support the ratifications and documentations required as follows:

- Adoption of all certificates and securities issued by the the Academy
- Ratification of all certificates of marine special courses at the Institute of Maritime Training
- Ratification of all transactions for staff and faculty members

Civil Affairs Services

This service is available for employees and the members of the Academy's faculty and students. The Civil registers include extraction of the following:

- Extraction of the national ID card for the first time
- Renewal of the national ID card
- Adding new data
- Extraction of computer birth certificates
- Real Estate Registration & Documentation Services
- Ratification of the companies contracts
- Ratification of the rental contracts
- Representations of testimony
- Public and Private Agencies
- Selling cars contracts
- Selling cars Agencies

Cars / Club Services

- Extracting International driving licenses for the first time
- Renewal of International driving licenses

Traffic Services

The services provided by the center through the Traffic Department vary to include the following:

- New car license
- Renewed car licenses
- Data mining certificate
- Technical inspection of cars
- Extracting irregularities certificate
- Payment of the assessed tax
- Payment document assessed on car insurance

Administration Faculty & Staff

Deanery

Name	Position
Dr. Mohi El Din Mohamed El Sayeh	Dean of College
Capt. Mahmoud Hashem Ismaiel Mohamed Abdo	Associated Dean For Education Affairs
Dr. Tarek Aly Hassan Abo El Ela	Associated Dean For Postgraduate Studies and Scientific Research
Capt. Ahmed Hamdy Hussien Morsy	Associated Dean for Student Affairs
Dr. Bader El-Din Mohamed Bader El-Din	Associated Dean for Training and Community Services
Capt. Ayman Salah El Din Saied Moustafa	Assistant Dean for the International Programs

Department Heads

Name	Department
Capt. Osama Fawzy Ahmed El Baioumy	Basic Nautical Studies Department
Capt. Mohamed Hussein Nassar Hassan	Maritime Transport Technology Department
Dr. Nasr Abdel Rahman Nasr Mohamed	Marine Engineering Technology Department
Capt. Ahmed Saad Hassan Noufal	Special Courses & Simulators Department
Dr. Amal Moustafa Mohamed	Information Technology Department
Capt. Adel El Said Hassan Zedan	Leadership Department
Capt. Hassan Kamal Hassan	Discipline Department
Dr. Hussein Abdel Salam	Physical Education Department
Dr. Marwa Mohamed Essam	Maritime Hotel Center

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Programmes Heads

Name	Program
Dr. Kareem Mahmoud Hassan Tonbol	Meteorology & Hydrographic Survey Program
Capt. Yasser Ali Hassan Elharedy	Diving Program

Units Heads

Name	Program
Capt. Ahmed Atef Shaheen	Head Of Quality Assurance Unit

College of Maritime Transport &Technology Members

Name	Title	Academic Degree	Position	Department / Program
Adel El Sayed Ahmed Atia	Captain	B.Sc.	First lecturer	Basic Nautical Studies
Ahmed Dawood Kahlifa Ahmed	Captain	M.Sc.	Second lecturer	Basic Nautical Studies
Ahmed Hamdy Hussien Morsy	Captain	M.Sc.	Second lecturer	Basic Nautical Studies
Ahmed Mohamed Anwar Abdel Latif	Captain	B.Sc.	Second lecturer	Basic Nautical Studies
Ahmed Mohamed Ismail El Noory	Captain	B.Sc.	Third lecturer	Basic Nautical Studies
Ahmed Salem Ahmed Salem Ashour	Captain	B.Sc.	Third lecturer	Basic Nautical Studies
Amr Mohamed El Demerdash	Captain	M.Sc.	Second lecturer	Basic Nautical Studies
Ashraf Hussien Ezzat Mohamed	Captain	B.Sc.	Second lecturer	Basic Nautical Studies
Ayman Salah El Din Saied Mostafa	Captain	M.Sc.	Second lecturer	Basic Nautical Studies
El Sayed Gaber Sayed Ahmed	Engineer	B.Sc.	Second lecturer	Basic Nautical Studies
Fathy Abdel Mohsen El Wazzan	Captain	M.Sc.	First lecturer	Basic Nautical Studies
Hany Mahmoud Shehda Abdel Aal	Captain	M.Sc.	Second lecturer	Basic Nautical Studies
Hesham El Sayed Aly El Sayyad	Captain	M.Sc.	Third lecturer	Basic Nautical Studies
Hesham Nasralla Keshta	Captain	B.Sc.	Third lecturer	Basic Nautical Studies

College of Maritime Transport &TechnologyMembers

Name	Title	Academic Degree	Position	Department / Program
Hosam El Din Bakr Abdel Salam	Captain	B.Sc.	Third lecturer	Basic Nautical Studies
Maged Mostafa Yousry ElZorkany	Dr. Captain	Ph.D.	Second lecturer	Basic Nautical Studies
Mahmoud Hashem Ismail Mohamed Abdo	Captain	B.Sc.	Second lecturer	Basic Nautical Studies
Mohamed Abdel Salam Abdel Hamid Aly	Captain	B.Sc.	Third lecturer	Basic Nautical Studies
Mohamed Ahmed Ahmed Soliman El-Sherif	Captain	B.Sc.	Third lecturer	Basic Nautical Studies
Mohamed Ahmed Mohamed Hebala	Captain	M.Sc.	First lecturer	Basic Nautical Studies
Mohamed Ahmed Saied El Wakil	Captain	M.Sc.	First lecturer	Basic Nautical Studies
Mohamed Emad El Din El Ghitany	Captain	B.Sc.	Second lecturer	Basic Nautical Studies
Mohamed Hassan Mohamed El Tawil	Captain	B.Sc.	Third lecturer	Basic Nautical Studies
Mohamed Hussien Nassar Hassan	Captain	M.Sc.	Second lecturer	Basic Nautical Studies
Mohamed Ismail Abdel Latif	Captain	B.Sc.	First lecturer	Basic Nautical Studies
Mohamed Mostafa Darwish Haiba	Captain	B.Sc.	Third lecturer	Basic Nautical Studies
Mohamed Nagib Hassan Soliman Abdo	Engineer	B.Sc.	Second lecturer	Basic Nautical Studies
Mohamed Saleh Abdel Salam Dawood	Dr. Captain	Ph.D.	First lecturer	Basic Nautical Studies
Mohie El Din Mahmoud El Ashmawy	Captain	M.Sc.	First lecturer	Basic Nautical Studies
Nashaat Abdel Fattah Mohamed El Samny	Captain	M.Sc.	Third lecturer	Basic Nautical Studies
Omar Hassan Abdel Fattah El Baroudy	Captain	B.Sc.	Third lecturer	Basic Nautical Studies
Osama Fawzy Ahmed El Baioumy	Captain	M.Sc.	Second lecturer	Basic Nautical Studies
Rafik Ibrahim Mohamed Kamel	Captain	B.Sc.	Third lecturer	Basic Nautical Studies
Rashid Mohamed Rashad Mostafa	Dr. Captain	Ph.D.	First lecturer	Basic Nautical Studies
Refaat Mohamed Rashad Mostafa	Dr. Captain	Ph.D.	First lecturer	Basic Nautical Studies

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College of Maritime Transport &TechnologyMembers

Name	Title	Academic Degree	Position	Department / Program
Sameh kabary Ibrahim Rashed	Captain	M.Sc.	Second lecturer	Basic Nautical Studies
Samir Abdel Ghany Megahed Mahdaly	Captain	M.Sc.	Second lecturer	Basic Nautical Studies
TarekAly Hassan Abo El Ela	Dr. Captain	Ph.D.	Second lecturer	Basic Nautical Studies
Tarek Mohamed Mahmoud Gamil	Captain	M.Sc.	Third lecturer	Basic Nautical Studies
Wagdy Mohamed Ibrahim Fouad	Captain	B.Sc.	Second lecturer	Basic Nautical Studies
Yasser Aly Hassan El Haridy	Captain	B.Sc.	Third lecturer	Basic Nautical Studies
Yasser El Sayed Abdel Sattar	Engineer	B.Sc.	Second lecturer	Basic Nautical Studies
Yasser Raafat Mohamed Aly	Captain	M.Sc.	Third lecturer	Basic Nautical Studies
Zohair Abdel Fattah Abdel Salam	Captain	M.Sc.	Second lecturer	Basic Nautical Studies
Adel Hassan Abdel Aziz	Engineer	M.Sc.	First lecturer	Marine Engineering
Ahmed Abdel Wahab Swidan	Dr. Engineer	Ph.D.	Third lecturer	Marine Engineering
Alaa El Din Abdel Azim Abdel Wahab Aly	Engineer	B.Sc.	Second lecturer	Marine Engineering
Bader El-Din Mohamed Bader El-Din	Dr. Engineer	Ph.D.	First lecturer	Marine Engineering
Ibrahim Sadek Seddik Ibrahim	Dr. Engineer	Ph.D.	Third lecturer	Marine Engineering
Khaled Mohamed Merghany	Dr. Engineer	Ph.D.	First lecturer	Marine Engineering
Khaled Sinary Zohary Ibrahim	Dr. Engineer	Ph.D.	Second lecturer	Marine Engineering
Magdy Aly Hussien Soliman	Engineer	M.Sc.	First lecturer	Marine Engineering
Mahmoud Mohamed Abbas Mohamed	Dr. Engineer	Ph.D.	Second lecturer	Marine Engineering
Mohamed Abdel Fattah Soliman Eweda	Engineer	M.Sc.	First lecturer	Marine Engineering
Mohamed Aly Lotfy	Dr. Engineer	Ph.D.	First lecturer	Marine Engineering
Mohamed El Said Ahmed Abdel Kader	Dr. Engineer	Ph.D.	Professor	Marine Engineering

College of Maritime Transport &TechnologyMembers

Name	Title	Academic Degree	Position	Department / Program
Nabil Hafez Mohamed Agamy	Engineer	B.Sc.	First lecturer	Marine Engineering
Nasr Abdel Rahman Nasr Mohamed	Dr. Engineer	Ph.D.	First lecturer	Marine Engineering
Sherief Farok badran	Dr. Engineer	Ph.D.	Second lecturer	Marine Engineering
Abdel Hamid Mohamed EL Fahham	Captain	B.Sc.	Second lecturer	Maritime Transport Technology
Abdel Khalek Kamal El Din Soliman	Captain	M.Sc.	Second lecturer	Maritime Transport Technology
Adel Ahmed Ahmed Mostafa	Captain	M.Sc.	First lecturer	Maritime Transport Technology
Ahmed Atef Mohamed Shaheen	Captain	M.Sc.	Third lecturer	Maritime Transport Technology
Ahmed Mohamed Ismail Abdel Latif	Captain	M.Sc.	Third lecturer	Maritime Transport Technology
Ahmed Saad Hassan Nofal	Captain	M.Sc.	Second lecturer	Maritime Transport Technology
Ahmed Saber Abdel Gawad	Engineer	B.Sc.	Third lecturer	Maritime Transport Technology
Khaled Ramadan Mahmoud El Emam	Captain	M.Sc.	Third lecturer	Maritime Transport Technology
Magdy Aly Mansour Al Ashkar	Captain	M.Sc.	Third lecturer	Maritime Transport Technology
Mohamed Abdel Fattah Mohamed Omar	Captain	M.Sc.	Third lecturer	Maritime Transport Technology
Mohamed Nabil El Nabawy Abdel Hady	Captain	M.Sc.	Second lecturer	Maritime Transport Technology
Mohi El Din Mohamed El Sayeh	Dr. Captain	Ph.D.	First lecturer	Maritime Transport Technology
Reda Farouk Hassan El Shamy	Captain	M.Sc.	Second lecturer	Maritime Transport Technology

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Supporting Unit Members

Name	Title	Academic Degree	Position	Department / Program
Abdel Hamid Mohamed Ezz El-Din El Kady	Captain	M.Sc.	Second lecturer	Sea Training Institute
Ahmed Mohamed Abdel Fattah Sharabia	Captain	B.Sc.	Third lecturer	Sea Training Institute
Ahmed Saied Ibrahim Khairy	Captain	High Diploma	Third lecturer	Sea Training Institute
Amr Samir Ibrahim Nosir	Captain	M.Sc.	Third lecturer	Sea Training Institute
Ayman Farouk Ahmed El Hattab	Engineer	B.Sc.	Third lecturer	Sea Training Institute
El Daiash Saad Saad Ibrahim El Daiash	Captain	B.Sc.	Third lecturer	Sea Training Institute
MamdouhAwad	Captain	B.Sc.	Third lecturer	Sea Training Institute
Mohamed El Sayed El Bawab	Engineer	B.Sc.	Third lecturer	Sea training Institute
Mohamed Saied Soliman Rowaihel	Captain	B.Sc.	Third lecturer	Sea Training Institute
Mohamed Walid Abdel Hamid Ahmed	Engineer	M.Sc.	Second lecturer	Sea Training Institute
Samy Ismail Abdel Gawwad Youssef	Captain	M.Sc.	Third lecturer	Sea Training Institute
Seif El Din Nasr El Din Mohie El Din	Captain	M.Sc.	Third lecturer	Sea Training Institute
Sherif Hussien Diaa El Din Helmy	Captain	B.Sc.	Third lecturer	Sea Training Institute
Wae ISabry Osman Ismail	Captain	B.Sc.	Third lecturer	Sea Training Institute
Ahmed Ali Anis Onsi	Captain	M.Sc.	First lecturer	Maritime Safety Institute
Ahmed Hassan Taha Abdel Dayem	Captain	M.Sc.	Second lecturer	Maritime Safety Institute
Ahmed Mohamed Soliman Abdel Ghany	Captain	B.Sc.	Third lecturer	Maritime Safety Institute
Ahmed Wael Ismail Mohamed Shetiwy	Captain	M.Sc.	Second lecturer	Maritime Safety Institute
Aly Hassan Aly Mahmoud El Maghawry	Captain	M.Sc.	Third lecturer	Maritime Safety Institute
Ashraf Mohamed Nour Soliman Halawa	Captain	M.Sc.	First lecturer	Maritime Safety Institute
Ahmed Mohamed Youssef Taha	Captain	M.Sc.	Second lecturer	Basic Nautical Studies
Fathy Ibrahim Sayed Baioumy	Captain	B.Sc.	Third lecturer	Basic Nautical Studies

Supporting Unit Members

Name	Title	Academic Degree	Position	Department / Program
Ayman Shokr Shokralla Behery	Captain	M.Sc.	Second lecturer	Maritime Safety Institute
Ehab Ibrahim Mohamed Etman	Captain	M.Sc.	First lecturer	Maritime Safety Institute
Essam El Sayed Ahmed Badawy	Captain	M.Sc.	First lecturer	Maritime Safety Institute
Hosam El Din Hassan Abdel Hakim Gadalla	Captain	M.Sc.	Third lecturer	Maritime Safety Institute
Mohamed Ahmed Mahmoud Essallamy	Captain	M.Sc.	First lecturer	Maritime Safety Institute
Mohamed Ibrahim Khamis Mohamed Omar	Captain	M.Sc.	Third lecturer	Maritime Safety Institute
Mohamed Mohamed Abd Elmonem Salem	Captain	M.Sc.	First lecturer	Maritime Safety Institute
Omar Mohamed Fouad Hussien Farid	Captain	M.Sc.	Second lecturer	Maritime Safety Institute
Sherif Mohamed Fathalla Ismail	Captain	M.Sc.	Second lecturer	Maritime Safety Institute
Abdalla El Sayed Abdalla El Shazly	Captain	B.Sc.	Third lecturer	Upgrading Studies Institute
Ahmed Bahir Abdel Aziz Abdel Kafy	Captain	M.Sc.	First lecturer	Upgrading Studies Institute
Ahmed Helmy Abou El Fadl Ibrahim	Captain	M.Sc.	Third lecturer	Upgrading Studies Institute
Amman Ali Ali	Dr. Engineer	Ph.D.	First lecturer	Upgrading Studies Institute
Amr Saad El Din Abdel Hamid Sadek	Captain	M.Sc.	Third lecturer	Upgrading Studies Institute
Essam El Din Youssif Abdel Raaouf	Captain	M.Sc.	Third lecturer	Upgrading Studies Institute

College of Maritime Transport &Technology - CMTT

Supporting Unit Members

Name	Title	Academic Degree	Position	Department / Program
Fahmy El Adl Ibrahim El Adl	Captain	M.Sc.	Third lecturer	Upgrading Studies Institute
Farouk Ahmed Arafa	Dr. Engineer	Ph.D.	First lecturer	Upgrading Studies Institute
Galal Abdel Aziz Shawkat	Engineer	B.Sc.	Fourth lecturer	Upgrading Studies Institute
Hosam Nabil Agamy	Engineer	M.Sc.	Fourth lecturer	Upgrading Studies Institute
Ibrahim Mansour Mohamed Soliman	Captain	M.Sc.	First lecturer	Upgrading Studies Institute
Maged Mohamed Abdou El Sayed	Captain	M.Sc.	First lecturer	Upgrading Studies Institute
Mahmoud Fares Mahmoud Fares	Captain	M.Sc.	Third lecturer	Upgrading Studies Institute
Mohamed Ahmed Abdel Rasoul Khalifa	Captain	M.Sc.	First lecturer	Upgrading Studies Institute
Mohamed El Saied Mohamed Ashour	Captain	M.Sc.	First lecturer	Upgrading Studies Institute
Mohamed Esayed Gharieb	Engineer	B.Sc.	Third lecturer	Upgrading Studies Institute
Mohamed Lotfy El Abbasy	Captain	M.Sc.	First lecturer	Upgrading Studies Institute
Mohamed Mahmoud Tohamy	Captain	M.Sc.	First lecturer	Upgrading Studies Institute
Mohamed Mokhtar Mohamed El Mesmary	Engineer	M.Sc.	First lecturer	Upgrading Studies Institute
Mouwafk Mohamed Zaki El Tabaa	Captain	M.Sc.	First lecturer	Upgrading Studies Institute
Nour Ahmed Ebrahim	Engineer	B.Sc.	Third lecturer	Upgrading Studies Institute
Salah El Din Ahmed Ahmed Farid	Captain	M.Sc.	Third lecturer	Upgrading Studies Institute
Walid Mohamed Ahmed Bahgat	Engineer	M.Sc.	Third lecturer	Upgrading Studies Institute
Yaser Bayoumy A. Wahab	Engineer	B.Sc.	Fourth lecturer	Upgrading Studies Institute

Supporting Unit Members

Name	Title	Academic Degree	Position	Department / Program
Ahmed Khalil Tawfik Khalil	Captain	M.Sc.	Second lecturer	Integrated Simulators Complex
Aly Shawky Abdel Megid Ibrahim	Captain	M.Sc.	Second lecturer	Integrated Simulators Complex
Amr Mohamed Monir Ibrahim	Captain	M.Sc.	Second lecturer	Integrated Simulators Complex
Ashraf Mohamed Mohamed El-Sayed	Captain	M.Sc.	Third lecturer	Integrated Simulators Complex
Hany Sobhy Ibrahim Ismail	Captain	B.Sc.	Third lecturer	Integrated Simulators Complex
Ibrahim Mahmoud Ghazy Fahmy	Captain	M.Sc.	First lecturer	Integrated Simulators Complex
Islam Mostafa Mohamed Gaber	Captain	B.Sc.	Third lecturer	Integrated Simulators Complex
Nafea Abdel Hamid Shaaban Amer	Dr. Captain	Ph.D.	First lecturer	Integrated Simulators Complex
Tawfik Mostafa Tawfik Khattab	Captain	M.Sc.	Third lecturer	Integrated Simulators Complex
Wael Mohamed Khattab Abdel Hakim	Captain	M.Sc.	First lecturer	Integrated Simulators Complex

College of Maritime Transport &Technology - CMTT

Supporting Unit Members

Name	Title	Academic Degree	Position	Department / Program
Ahmed Hafez Abdel Naaem	Captain	M.Sc.	First lecturer	Maritime Affairs
Ahmed Mohamed Youssef Taha	Captain	M.Sc.	Second lecturer	Maritime Affairs
Aly Abdel RahmanAly El Sayed	Captain	M.Sc.	Third lecturer	Maritime Affairs
Ayman Hamad Atteya	Captain	M.Sc.	First lecturer	Maritime Affairs
Kazem Saied Mahmoud Agamy	Captain	M.Sc.	Second lecturer	Maritime Affairs
Mohamed Kamel Mohamed Ahmed	Captain	M.Sc.	First lecturer	Maritime Affairs
Mohamed Saleh Abdel Salam Dawood	Dr. Captain	Ph.D.	First lecturer	Maritime Affairs
Mohamed Kamel Mohamed Ahmed	Captain	M.Sc.	First lecturer	Maritime Affairs
Mohamed Mostafa Abbas El Kalla	Captain	M.Sc.	First lecturer	Maritime Affairs
Salah Ahmed Mohamed Saleh	Captain	M.Sc.	First lecturer	Maritime Affairs
El Sayed Sayed Ahmed Agwa	Dr. Engineer	Ph.D.	First lecturer	Maritime Transport Examination Center
Farid Mohie El Din Fouda	Captain	M.Sc.	First lecturer	Maritime Transport Examination Center
Hany Kamal Sedky Iskandar	Captain	B.Sc.	Third lecturer	Maritime Transport Examination Center
Mohamed Ibrahim Abdel Aziz Hassan	Engineer	M.Sc.	First lecturer	Maritime Transport Examination Center
Salah El Din Farag Aly Mohamed Badawy	Captain	M.Sc.	Third lecturer	Maritime Transport Examination Center

Supporting Unit Members

Name	Title	Academic Degree	Position	Department / Program
Ahmed Abdel Hamid Ibrahim Kassar	Dr. Captain	Ph.D.	First lecturer	Postgraduate Maritime Studies Institute
Hesham Mahmoud Ahmed Helal	Captain	M.Sc.	First lecturer	Postgraduate Maritime Studies Institute
Mahmoud El Sayed El Sayed El Bawab	Captain	M.Sc.	First lecturer	Postgraduate Maritime Studies Institute
Sameh Farahat El Sayed Sehsah	Dr. Engineer	Ph.D.	First lecturer	Postgraduate Maritime Studies Institute
Amr Gamal El Din Ibrahim Atalla	Captain	M.Sc.	First lecturer	IMO Compound
Emad Rasheed Mohamed Khafagy	Captain	M.Sc.	First lecturer	IMO Compound

College of Maritime Transport &Technology - CMTT

Staff

Name	Position	Department / Program
Abeer Hassan Khadragy	Education Coordinator	Dean's Office
Afifa Mohamed Zaki El-Ayoubi	Dean's Office Director	Dean's Office
Ahmed Abdou Brequaa	Keeper of Meetings Hall	Dean's Office
Ahmed Mahmoud Ibrahim	Administration Custodian	Dean's Office
Hebaallah Abdel ghany Gaber	Education Coordinator	Dean's Office
Maher Masoud Elsakka	Treasurer	Dean's Office
Mahmoud Mostafa Elattar	Students Affairs Coordinator	Dean's Office
Noha Hatem Asfour	Education Coordinator	Dean's Office
Rania Mohamed Samak	Education Coordinator	Dean's Office
Marwa Mamdouh Hommos	Secretariat	Dean's Office
Saad Ahmed Mohamed Mohamed	Technical Manager of Simulators	Dean's Office
Sanaa Morsy Mohamed Morsy	Head of Administrative Follow-up Dep.	Dean's Office
Islam Mohamed Ibrahim Ismail	Registration and Examination Coordinator	Basic Nautical Studies Dept.
Mohamed Abdel hamid Abdel razik	Students Affairs Coordinator	Basic Nautical Studies Dept.
Mohamed Mahmoud Sabra	Maritime Quality Coordinator	Basic Nautical Studies Dept.
Rania Mostafa Elsherbini	Education Coordinator	Basic Nautical Studies Dept.
Zeynab Khalaf Mohamed Moussa	Education Coordinator	Basic Nautical Studies Dept.

Staff

Name	Position	Department / Program
Abeer Mamdouh Rashad	Education Coordinator	Marine Engineering Tech. Dept.
Fouad Souliman Fouad	Administrator	Marine Engineering Tech. Dept.
Marwa Mohamed Mahmoud	Education Coordinator	Marine Engineering Tech. Dept.
Bilal Mohamed Abdelaziz	Maritime Quality Coordinator	Maritime Transport Tech. Dept.
Nermeen Ahmed Nassr eldin	Education Coordinator	Maritime Transport Tech. Dept.
Akram Fawzy Ali	Simulator Technical Support Engineer	Special Courses & Simulators Dept.
Sherine Mohamed Sherif Eldeeb	Sessions Coordinator	Special Courses & Simulators Dept.
Yasser Farouk Arafa	Simulator Technical Support Engineer	Special Courses & Simulators Dept.
Ayman Mohamed Abd Elrazik	Assistant Head of Diving Program	Diving Program

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