



Process Operations Technology

Bachelor of Engineering
Part-Time Study



Part-Time Regulations - 2013-2014 (To be read in conjunction with the Student Handbook and IMCO Academic Regulations)

(Applicable to students who are joining in academic year - 2013-2014)

Department of Process Operations Technology
INTERNATIONAL MARITIME COLLEGE OMAN

P.O. Box 532, P.C. 322, Falaj Al Qabail, Sohar
Sultanate of Oman

Tel.: (+968) 2682 7777

Fax.: (+968) 2682 7744

Email: info@imco.edu.om

Web site: www.imco.edu.om

Contents

| | |
|-----------------------------------------------------|----|
| Contents..... | 2 |
| Purpose of the programme..... | 3 |
| Entry Requirements..... | 6 |
| Assessment of Application | 6 |
| Selection Criteria | 6 |
| Selection Test | 6 |
| Admission & Registration..... | 7 |
| Withdrawal from the programme | 7 |
| Postponement of studies | 8 |
| Attendance Requirements..... | 8 |
| Examination Procedure | 8 |
| Resit Exams | 9 |
| Results of Examinations & Appealing of Result | 9 |
| Academic Progression for Part Time Study..... | 9 |
| Exit Awards..... | 10 |
| Terms and Conditions..... | 10 |
| Disclaimer..... | 10 |

Purpose of the programme

The Process Operations Technology (Part Time Study) programme aims to prepare those who are aspiring to join in process industries at entry-level positions. These industries include, but are not limited to, oil and gas exploration and production, petro-chemical and refining, chemical and agricultural manufacturing, energy and power generation, water and waste water treatment, food and beverage processing, and pharmaceutical manufacturing.

Our part-time undergraduate programme is offered at Bachelor degree levels in Engineering for Process Operations Technology.

Bachelor of Engineering for Process Operations technology

The Bachelor's degree is designed to give you a thorough understanding of the subject. It will help you to develop your analytical, intellectual and writing skills as well as your supervisory and managerial skills.

This part-time programme leading to the award of the degree of Bachelor of Engineering in Process Operations Technology is intended for students who are employed in relevant industries and who wish to attend the college while continuing to work in industry.

This part-time programme is a unique engineering programme for Oman. It doesn't have any majors or minors or electives like many other engineering programmes.

IMCO accepts the responsibility for its own awards and standard of quality. IMCO ensures that this part time programme incorporate the latest professional and technological developments in the process industries.

The duration of the Part-Time Bachelor of Engineering for Process Operations Technology is 6 semesters. These 6 semesters have a total study load of 320 credit units. A student who has successfully obtained 480 credits (including 140 credits transferred from Diploma) is awarded a Bachelor of Engineering for Process Operations Technology. Part-Time students are required to undertake practical training in 2 semesters in their process industry place of work.

We grade our modules by credit points. IMCO expects each student to invest approximately 10 hours of time for each credit point. This time includes self-directed studies (e.g. reading, preparing assignments), attending classroom lectures and seminars and carrying out laboratory, workshop and simulator exercises and scenarios and field activities.

Bachelor of Engineering for Process Operation Technology Study Plan (Part Time)

FIRST YEAR (S 1) (1st Semester)

| Module | Descriptive title | Credit |
|---------|------------------------------|--------|
| TICHEM | Industrial Chemistry | 10 |
| TMATH-I | Technical Maths I | 10 |
| TPTS | Process Technology – Systems | 10 |
| THE | Heat & Energy | 10 |
| | Sub total | 40 |

FIRST YEAR (S 2) (2nd Semester)

| Module | Descriptive title | Credit |
|---------|--------------------------------------------|--------|
| TAFM | Applied Fluid Mechanics | 10 |
| TPPTS | Process Plant Operations & Troubleshooting | 10 |
| TPIC-II | Process Instrumentation & Control -II | 10 |
| TEMD | Electrical Machines & Drives | 10 |
| | Sub total | 40 |

SECOND YEAR (S 3) - (3rd Semester)

| Module | Descriptive title | Credit |
|-----------|--------------------------------------------------------------|--------|
| TACHEM | Analytical Chemistry | 10 |
| TMATH-III | Technical Math III | 10 |
| TCPC-I | Chemical Process Calculations I | 10 |
| TAP-I | Apprenticeship I (Safety, Basic Operations in Process field) | 30 |
| | Sub total | 60 |

SECOND YEAR (S 4) - (4th Semester)

| Module | Descriptive title | Credit |
|---------|--------------------------------------------------------------------------|--------|
| TCPC-II | Chemical Process Calculations II | 10 |
| TEM | Engineering Materials | 10 |
| THTX | Heat Transfer & Heat Exchangers | 10 |
| TAP-II | Apprenticeship II (Process Control, Maintenance & Industrial Management) | 30 |
| | Sub total | 60 |

THIRD YEAR (S 5) - (5th Semester)

| Module | Descriptive title | Credit |
|----------|-------------------------------------------|--------|
| TSCOL | Separation Columns | 10 |
| TPEIM | Process Economics & Industrial Management | 10 |
| TCPC-III | Chemical Process Calculations III | 10 |
| TSQC | Statistical Quality Control | 10 |
| TOC | Organization & Communication | 10 |
| | Sub total | 50 |

THIRD YEAR (S 6) - (6th Semester)

| Module | Descriptive title | Credit |
|---------|----------------------------------------------|--------|
| THSES | Health, Safety & Environment for Supervisors | 10 |
| TPSS | Process Unit Start up & Shut Down | 10 |
| TENG-VI | Business Correspondence & Communication | 10 |
| TPRO | Final Year Project | 40 |
| | Sub total | 70 |

| | | |
|--|------------------------------------------------------|-----|
| | Exempted Credit Points(Accepting the Diploma course) | 140 |
| | English (Selection Test) | 20 |
| | Total (Sem-01 to Sem-06) | 320 |
| | Total Credit Units | 480 |

Apprenticeship I (Safety, Basic Operations in Process Field)

Apprenticeship I module provides the student with an opportunity to apply new skills and concepts appropriate for entry-level positions within the occupation of process safety & basic operations. It is the opportunity to apply new skills and concepts appropriate for process unit operations at field level. Students will monitor their own performance in the operation of different kinds of process equipment and will monitor the operating parameters in the field. Students will be assessed by an IMCO supervisor and a mentor from the industry partner. The IMCO supervisor and the industry partner's mentor will identify specific tasks and training outcomes during the work experience. Students will be required to submit an apprenticeship report (Training Record Book, TRB) and deliver an oral presentation.

Apprenticeship II (Process Control, Maintenance & Industrial Management)

Apprenticeship III module provides the student with an opportunity to apply new skills and concepts appropriate for process unit operations in process control. Students will monitor their own performance in different aspects of process control, electric motors & control and equipment operation. These particular process control students will monitor the operating parameters in the central control room. The student will understand the concepts appropriate for maintenance & industrial management in process industries during this apprenticeship. Module learning outcomes will be assessed by an IMCO supervisor and the industry partner's mentor. The IMCO supervisor and the industry partner's mentor will identify specific tasks and training outcomes for this module during the work experience. Students will be required to submit an apprenticeship report (TRB) and deliver an oral presentation.

Final Year Project work

The Final Year Project starts in the 5th Semester. It should be relevant to the industry where the student is working. It commences with the selection of a project title and a preliminary survey. The preliminary survey should lead to a possible solution of the selected project title. In the 6th Semester the project selected in the 5th semester will be continued with a detailed survey leading to completion of the project design.



Entry Requirements

A student who studied at another college/university is eligible to be considered to join International Maritime College Oman (IMCO) to undertake studies as a Part-Time Student in the Department of Process Operations Technology only if he / she shall possess the following qualifications.

- General Education Diploma (Grade 12 Certificate) who have studied *Mathematics, Chemistry and Physics* (or examinations considered equivalent as assessed by the Ministry of Education).
- A diploma, advanced diploma, or other academic qualification in engineering or in a technical field approved by the Ministry of Higher Education.
- If the applicant possesses any of the above diploma qualifications he/she will be exempted 140 diploma level credit points in the Part-Time Bachelor programme.
- All applicants must pass the English selection test, after which they will be additionally exempted 20 diploma level credit points in the Part-Time Bachelor programme.
- The transferred credits will appear on the student's final transcript record as exemptions but will not be included in the calculation of his/her cumulative GPA.
- Students who have a Diploma in Process Operations Technology from IMCO are exempted from the first 2 semesters of the Part-Time Bachelor of Engineering in Process Operations Technology and need not attend the selection test.
- Training programmes and in-house skills development programmes conducted at any industrial establishment cannot be considered.

Assessment of Application

Part-Time Bachelor Applications will be assessed by the relevant Part-Time Committee (Head of Department (POT), Head of Registration & Admission Dept, English Teacher with experience in POT Modules) taking into account the relevance of the applicant's prior qualification(s) to the proposed field of study, the institution where the applicant previously studied, the mode of study, total credits obtained in previous courses.

After the assessment, if the applicant satisfies the entry requirements student will appear for the selection test.

Selection Criteria

- A pass at Diploma level in any of the technical programmes listed above.
- 1 year of relevant (Maintenance & Operation) experience in a process industry after completing the diploma in engineering.

Selection Test

Selection Tests will be conducted in the following subjects

Test -1: Process System (Process Technology, Process Equipments)

Test-2: English

Note: If the student fails in English test, he/ she will not be admitted in Part Time Bachelor programme.

Admission & Registration

A student, who wishes to join in IMCO, needs to complete an application form. Applications for part-time programme can be submitted according to the academic calendar prior to the start of the programme. Application forms can be obtained from the Admission & Registration Office.

The College is strongly committed to making its Part-Time bachelor programme in Engineering in Process Operation Technology accessible to all who will benefit from it.

When applying to enter the Bachelor Programme, applicants will need to present official transcripts/certificates of relevant qualifications and an experience certificate from their company.

Provided that all documents required for by Admission & Registration department are submitted at the time of application, students can expect to receive a response in approximately four to six weeks after completing the selection test. In some circumstances where additional information or verification is required, processing time will be increased.

Students will need to check with the Registration & Admission Department to confirm the date of registration.

Admission to Bachelor Programme is based on the following criteria:

Securing minimum marks in the selection test and good rank in the selection test.

Students will be ranked according to their marks in the selection test and will be admitted to the programme based on the availability of seats in a batch according to their work rotation.

Registration

During the registration, each applicant must bring the following registration documents:

- General Education Diploma (Grade 12 Certificate) who have studied **Mathematics, Chemistry and Physics** (or examinations considered equivalent as assessed by the Ministry of Education).
- An original Diploma Certificate specialised in one of the engineering fields listed in the Entry requirements, and an Original Diploma Transcript.
- Four (4) passport photos;
- A copy of the applicant's valid Passport or Civil ID;
- A copy of the applicant's Birth Certificate
- An experience certificate or letter of employment

Course Fee

Contact the finance department of IMCO for Part-Time Bachelor programme fee & Mode of payment

Withdrawal from the programme

The individual should communicate and coordinate with IMCO Admission & Registration Department as early as possible to ensure that they have finalised the registration process before the start of the Academic Year or within time limit specified in the Part-Time academic calendar issued by the college. The start of semester will be mentioned in the Part-Time academic calendar.

Normally a student can withdraw within the first 4 calendar weeks of each semester. If any student applies to withdraw after this period, tuition fees will be incurred. The last day of withdrawal without incurring tuition fees will be indicated in the Academic Calendar for the year.

- Any student who wishes to withdraw from the college should visit Admission & Registration Department and obtain a Withdrawal Form with instructions.
- Any partial refund of course fee will depend on the date of withdrawal and the decision of the college in this regard is final.

Postponement of studies

If a student wishes to postpone his studies, he/she must fill the postponement request form and submit to Registration & Admission Department. Postponement of studies in this Part Time Degree programme is possible only for two semesters (one academic year).

Attendance Requirements

Any student who is absent for 25% of the classes for a module, with or without excuse, will be barred from the final exam. This barring is effective for one academic year. However if a student produces an on-duty certificate in relation to a period of study for which they were absent (either in advance or within one month's cycle of his/her stay in the college campus), that period of absence will be considered as "on work duty". Whatever the circumstances the total number of hours a student can be absent may not exceed 35% of the class hours set for the module

Students who are included in the barred list are allowed to submit reasons for absence within 3 working days of the date of publishing of the barred list. Students working in the interior may send a fax or e-mail addressed to the HoD. However sick leave certificates will not be accepted. Similarly letters from companies covering periods of absence not already submitted will not be considered. Even if an excuse for absence is accepted, no student may under any circumstances have been absent for more than 35% of classes overall. The decision of the college is final as to whether or not to allow a student to attend the final examination.

Students who are absent from 20% of the classes for a module will receive an official Warning Letter by SMS or Email. However students themselves remain fully responsible for keeping track of their absences. If for any reason a Warning Letter has not been sent to, or received by the student, IMCO retains the right to bar him/her when he/she has been absent for 25% of the classes or more.

Examination Procedure

Examinations for Part-Time study will be conducted on a central schedule, with or without options. Students are advised to make alternative arrangements for their work if the exam schedule clashes with their work rotation. Examinations are scheduled by the college and they cannot be varied in order to satisfy individual requests. Students are required to register for their examinations within the examination registration period set by IMCO.

It is the student's responsibility to consult the current subject teacher well in advance regarding course materials related to any module which he/she is intending to re-sit. If the material to be studied for a re-sit examination has changed, the new material must be studied by the student. No separate classes will be given for students preparing for re-sit exams.

The weight of continuous assessment in a module, including intermediate tests, will normally be between 40% and 60% of the final exam mark.

Assessments are marked on a scale from 0 to 10, or other relevant assessment scores, before being converted into numbers on a scale from 0 to 10. If the student does not participate in the assessment concerned, he will receive the mark of 0.

If a student knows he/she is going to miss the final exam or continuous assessment in the diploma/degree programme, he/she must present a valid reason for absence before the scheduled date to be allowed a re-exam. This reason should be accepted by the Head of Department and Examination Board.

Students are not allowed a second attempt in order to improve their marks / grades in a previous examination or continuous assessment.

Resit Exams

Students will be given the opportunity to take the final examinations for a module twice within one academic year. The first shall be the normal final examination and the second shall be a re-sit given in the semester that follows immediately after the teaching period in which the relevant module was taught and completed. Re-sits can only be taken by those who have not yet obtained credit units for a particular module.

Any final examination in the diploma / degree programmes can be taken three times (one examination and 2 re-sits) over a maximum period of two academic years by registered students. The first re-sit needs to be taken within one academic year of the first attempt, and, as with the first attempt, the Final Exam mark will be integrated with marks for Continuous Assessments. Thus for the first attempt and the first re-sit, the final module mark is made up of continuous assessment marks and the final exam mark. The mark for the first re-sit exam only replaces the first attempt exam mark. The second re-sit needs to be taken within two academic years of the original first attempt. The assessment for this final opportunity will be based only on the re-sit examination. Thus for the second and final re-sit only, the exam mark will be valued for assessment purposes at 100%.

Results of Examinations & Appealing of Result

After students have received their results, they have the right to peruse their marked scripts. Within 28 working days of the announcement of the examination results, irrespective of the student's study or work rotation, but no later than 2 days before the second opportunity, the student will be permitted to inspect the assessed piece of work. Permission from the Head of Department must be requested for exceptions to this rule. During this period, the student can study the examination questions, the marked script the marking criteria used, and can receive feedback from the lecturer. Students may also be allowed to review individual continuous assessments, but this will be at discretion of individual departments. If the 10 working days falls during the general vacation of the college (after the end of spring semester), then it should be within 28 days from the opening of the next academic year (fall semester).

Academic Progression for Part Time Study

| Year | Credits attempted | Credits earned between | Comments |
|------|-------------------|------------------------|--------------------------------------------------------------------|
| 1 | 240* | 160-209 | Repeat the first year |
| | 240 | 210-239 | Proceed to year 2. Re-sit and pass failed subjects |
| 2 | 360 | 240- 329 | Repeat the second year. |
| | 360 | 330-360 | Proceed to year 3. Re-sit and pass failed subjects |
| 3 | 480 | 361-449 | Repeat the third year. |
| | 480 | 450 - 480 | Proceed to the bachelor programme. Re-sit and pass failed subjects |
| | 480 | 480 | Graduated |

Note: 240* - Credits attempted in year 1 include the exempted diploma level 160 credit points.

Exit Awards

Students who have completed 480 credits (including exemption of 160 credit points) are awarded a Bachelor of Engineering for Process Operations Technology.

Terms and Conditions

All students are required to abide by the College Rules & Regulations. In accepting such an offer to join the part-time study programme, a student is required to sign an agreement indicating his/her consent to these terms and conditions. The College reserves the right to take disciplinary action against any student who infringes the rules & regulations of the College.

As a student you will also receive various information booklets describing the teaching, examination and assessment arrangements, services and facilities.

These Part-Time guidelines along with those specified in IMCO's Academic Regulations and in the Student Handbook for Full-Time students are applicable to any candidate registered for the Part-Time mode of study.

Disclaimer

Every effort is made to ensure that the information given in this brochure is correct at the time of publication and that the information given accurately describes the courses offered by the College. However, from time to time details do change; you should contact the College to verify any information, especially if you wish to place particular reliance upon it. All reasonable steps will be taken by the College to provide educational services and to minimize any disruption to those services. However, the College reserves the right to postpone, relocate, restructure, withdraw or cancel any teaching sessions or examinations, any course or particular options within a course due to the occurrence of any event or circumstance beyond its reasonable control (including, but not limited to, shortage of staff, unavailability of facilities, or insufficient number of students).

