



THE PETROLEUM INSTITUTE

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| Number: | PIP 3225 |
| Effective: | 21-October-2009 |
| Revised: | |

SUBJECT: Program Curriculum Guidelines and Course Requirements

REFERENCE: Standards for Licensure and Accreditation, Commission for Academic Accreditation, Ministry of Higher Education and Scientific Research, United Arab Emirates – 2007 (3i, 3ii, and 3iii – page 45), PIP 3100 (Grades and Graduation Requirements) and PIP 3300 (Academic Advising).

SECTION 1 PURPOSE

1.1 To establish and communicate the appropriate sequence of courses, minimum total credit hours required for a degree program, and distribution of credits between general education, major and electives courses. It also provides guidelines for developing majors and minors as appropriate.

SECTION 2 SCOPE AND APPLICABILITY

2.1 This policy is applicable to all bachelor's degrees at the Institute.

SECTION 3 DEFINITIONS

3.1 Course: A series of sessions comprising a unit of study within a curriculum utilizing any teaching format (lecture or seminar, laboratory or workshop, independent study or recitation, etc.).

3.2 Major: A main discipline or field of study.

3.3 Minor: A secondary discipline or field of study.

3.4 General Education Requirements: A group of designated courses required for all disciplines/majors towards graduating with a bachelor's degree.

3.5 Major Requirement: A group of designated courses required by the particular discipline/major to be completed towards graduating with a bachelor's degree in that discipline/major.

3.6 Major Elective Course: A course that carries the designation of the particular discipline/major and may be completed towards graduating with a degree in the discipline/major.



- 3.7 Technical Elective Course: A course that carries the designation of a discipline outside that of the student's discipline/major and may be completed towards graduating with a bachelor's degree in the discipline/major.
- 3.8 Prerequisite: A course that must be completed before a particular course may be taken.
- 3.9 Corequisite: A course that may be taken in conjunction with or prior to a particular course.

SECTION 4 POLICY

- 4.1 All disciplines must develop and implement their curricula requirements in accordance with this policy.

SECTION 5 BACKGROUND OR EXCLUSIONS

- 5.1 Further information pertaining to appropriate sequence of courses, minimum total credit hours required for a particular degree program, and distribution of credits between general education, major and electives courses is provided in the academic catalog. To the extent that information in the catalog may conflict with this policy, the policy supersedes that information.

SECTION 6 GENERAL PROVISIONS

- 6.1 A PI student, graduating with a bachelor's degree, will exhibit applied and theoretical competence in a field of technical specialization, and will be oriented in engineering practices germane to the oil and gas industry, and energy sector in general. The student will have the resourcefulness and capability to apply scientific and engineering principles in solving a wide variety of technical problems. To this end, each undergraduate curriculum must follow the guidelines below to ensure consistent curricula standards regardless of the field of study. A bachelor's degree in a particular discipline/major must:
- 6.1.1 Have a minimum of 120 credits.
 - 6.1.2 Include general education courses, major required courses, major elective and technical elective courses. These courses are important components of the curriculum and should not be split into individual credits to be counted in different areas of the degree audit.
 - 6.1.3 Specify a particular internship or field work requirement. The number of credit hours is optional.
 - 6.1.4 Consider a senior project requirement. The number of courses and credit hours is optional.



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6.1.5 Consider background knowledge, degree of difficulty, and course content and dependency. The specific proposed program of study, sequence of courses, and course prerequisites and corequisites is provided in the academic catalog. A list of approved major requirements and major elective courses must also be provided in the academic catalog.

6.2 General Education requirements contribute to the Institute's mission and commitment to academic excellence, and to fostering an intellectual environment that leads to the development of our graduates as whole persons and as the future leaders in their respective fields of expertise.

A total of 56 credit hours in General Education requirements courses must be completed with a minimum CGPA of 2.0. Under special circumstances, and with the approval of the College of Arts and Sciences, one of the general education designated courses may be substituted. The following courses are required for all undergraduate students to complete regardless of their discipline.

6.2.1 Communication: A PI student should appreciate the critical role played by verbal, written and graphical communications in engineering and applied sciences practice and project management, and will have the corresponding skills to communicate with a range of audiences, and the skills to employ information technologies where appropriate. Two courses (8 credit hours) are required. Must attempt and pass within the first 30 credit hours. The courses are:

COMM 101 Communication I

COMM 151 Communication II

6.2.2 Computing: A PI student should demonstrate the ability to utilize digital technology effectively and responsibly. Students with demonstrated computing skills may be exempted from this course. One course (0 credit hours) is required. Must attempt within the first 15 credit hours and pass within the first 30 credit hours. The course is:

COMP 100 Freshman Computing

6.2.3 Freshman Seminar: A PI student should have the professional integrity and maturity to serve humanity and its highest values, and should always make ethical decisions as they relate to society, corporate operations, technology, and the environment. One course (1 credit hour) is required. Must attempt and pass within the first 30 credit hours. The course is:

ENGR 103 Freshman Success Seminar



- 6.2.4 Health and Fitness: A PI student should adopt a positive approach to a healthy and fit lifestyle. Two courses (1 credit hour) are required. The courses are:

HFIT 101 Personal Health and Fitness I

HFIT 102 Personal Health and Fitness II

- 6.2.5 Humanities and Social Sciences (H&SS): A PI student should acknowledge that technologies, economies and societies are in a continuous state of evolution, and should therefore have the flexibility to manage a career path that changes over time, and that is supported by life-long learning, critical thinking, teamwork, leadership and which spans several disciplines. Four courses (12 credit hours) are required. The courses are:

H&SS 111 Islamic Studies

H&SS 251 Principles of Economics

Humanities and Social Sciences Elective Courses: Students must complete a minimum of two courses (6 credit hours) from a list of H&SS approved courses.

- 6.2.6 Mathematics: A PI student must have the ability to comprehend university-level mathematical concepts and operations. Three courses (11 credit hours) are required. Must attempt within the first 30 credit hours and complete within the first 60 credit hours. The courses are:

MATH 111 Calculus I

MATH 161 Calculus II

MATH 212 Calculus III

- 6.2.7 Introduction to the Petroleum Industry: A PI student should demonstrate familiarity with the basic operations of the UAE and its oil and gas, as well as the broader energy industry. One course (3 credit hours) is required. Must attempt and pass within the first 30 credit hours. The course is:

PEEG 151 Overview of the Petroleum Industry

- 6.2.8 Professional Examination Preparation: A PI student should exhibit applied and theoretical competence in a field of technical specialization, and will be oriented in engineering and applied sciences practices germane to the oil and gas industry, and the energy sector in general. The student will have the resourcefulness and capability to apply scientific and engineering principles in



solving a wide variety of technical problems. One course (2 credit hours) is required. The course is:

ENGR 498 Professional Examination Preparation

- 6.2.9 Sciences: A PI student must have the ability to comprehend university-level scientific concepts and experiments. One course in Chemistry (4 credit hours) and two courses in Physics (8 credit hours) are required. Must attempt within the first 30 credit hours and complete within the first 60 credit hours. The courses are:

CHEM 131 General Chemistry I

PHYS 191 Physics I-Mechanics

PHYS 241 Physics II-Electromagnetism and Optics

- 6.2.10 Multi-Disciplinary Team-Based Problem Solving: A PI student should understand the global nature of modern engineering, applied sciences and business, and in order to succeed in this international arena, the student should have an awareness of customary practices in different countries and the influence of diverse cultures. Students should be familiar with and willing to work collaboratively as productive leaders and team members. Two courses (6 credit hours) are required. Must attempt and pass within the first 75 credit hours. The courses are:

Strategies for Team-Based Engineering Problem Solving I

Strategies for Team-Based Engineering Problem Solving II

- 6.3 Majors: Major requirements are intended to introduce students to a particular curriculum through courses in the discipline/major comparable to or exceeding the international norms of the discipline/major. A minimum of 36 credit hours in major requirements is required with a minimum course grade of C. Other degree-related requirements are included in the academic policy on Graduation Requirements (PIP 3100)

6.3.1 The curriculum must be designed to clearly progress from lower-division to upper-division courses. The program of study, course descriptions, sequence of courses, and course requirements (including prerequisites, corequisites, restrictions, contact hours and credit hours) must be included in the Academic Catalog. The program flow chart and information found on individual program's web pages must be consistent with the information published in the most recent Academic Catalog.



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6.3.2 Students admitted to the PI are free to declare the program in which they intend to major in at the time of entry. There are no significant differences in the requirements of the Freshman year for the current degree programs. However, to avoid unnecessary delays in graduation, all students should decide on their major by the end of the first semester of the Freshman year. Students wishing to change their major must complete a “Change of Major” Form and submit to the Registrar Office. Once processed within the Academic Management System, the student’s “Catalog of Record” will automatically be updated.

6.3.3 Catalog of Record: For the purpose of academic standing and verification that all graduation requirements have been met, the Catalog of Record is either that of the academic year the student entered the Major or the academic year the student graduates. Under certain circumstances, a course substitution may be allowed. If approved, the “Course Substitution” Form is submitted to the Registrar Office in order to update the student’s degree audit in Academic Management System. All substitutions must be approved by the student’s degree program and the Provost (or designee). The Petroleum Institute reserves the right to make changes in academic regulations, policies and offerings as circumstances may require.

6.3.4 Every effort has been made to provide the most accurate, up-to-date information possible in PI’s catalogs, manuals, and handbooks. Each document is revised yearly and limited numbers printed once every two years. There may be times when substantive changes are required during the academic year and between the times the documents are printed. The catalogs, manuals, and handbooks are posted to the Institute’s web site. Faculty, staff, and students should consult the PI website periodically for updates on catalogs, manuals, and handbooks. In case of a conflict between catalogs and any supplements hereto and any other written or oral statements, the online version of the catalog and its supplements shall be deemed to be the official statement. Between print versions of the catalog, additions such as new courses and updated deadlines and fees are published in the online version of the catalog, which is considered a supplement. The most current catalog is available online. The Institute reserves the right to change any of the statements herein by reasonable notice in any supplemental catalog or other publication specifically setting forth any such changes.

6.4 Electives: Each curriculum must allow for at least a 3 credit hours major elective course at the 300-level or above. Each curriculum must also allow for at least a 3 credit hours technical elective course at the 200-level or above.

6.5 Double Majors: A student wishing to complete a bachelor’s degree in more than one degree program must obtain permission from the relevant Program Chairs and Provost (or designee). Students may complete up to two majors. One of the two majors is declared as the primary major but a student’s rights and responsibilities are the same for both majors. The particular course requirements for each major are listed in the Academic Catalog under the academic program offering the major. The following rules apply:



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- 6.5.1 A student must satisfy all the requirements of the two majors.
- 6.5.2 All courses used for the first major may also be used toward the second major. Furthermore, a course that is applied as a major requirement in one major may be used as a major or technical elective in the second major, if it satisfies the restrictions of the elective. Credit hours of such courses will double count. However, at least 18 of the credit hours applied to one degree must be in course work not applied to the requirements of other degree programs.
- 6.5.3 To declare a second major, a student must submit the “Declaration of Major and Minor” Form to the Registrar Office by week 12 of a regular semester. The approved declaration will be in effect as of the following regular semester. The deadline for declaring a second major is the regular semester prior to a student’s graduation semester. Both declared majors must be stated on the “Graduation Application” Form.
- 6.5.4 The Academic Catalog of Record for a student’s primary major will be used to audit the degree of the second major. If the major is not listed in that Academic Catalog, then the first Academic Catalog that lists the major will be used.
- 6.5.5 For academic advising on double majors refer to PIP 3300 (Academic Advising).
- 6.6 Minors: An academic program may provide the opportunity for students from outside the discipline/major to focus on a specific aspect of the field of study. Students cannot declare a minor in their discipline/major field of study. Students may complete up to two minors. The particular course requirements for each minor are listed in the Academic Catalog under the academic program offering the minor. The following rules apply:
- 6.6.1 At least 15 credit hours must be completed towards the minor from a specified list of courses. To complete a second minor, a student must satisfy all the requirements of the two minors.
- 6.6.2 All courses used for the major and/double major degree requirements and one minor may also be used toward the second minor. Students must meet the prerequisite requirements for courses required for the minor. However, at least 9 of the credit hours applied to one minor must be in course work not applied to the requirements of other degree programs.
- 6.6.3 A minimum course grade of C is required for each course used to satisfy the requirements of a minor.
- 6.6.4 At least 6 credit hours completed towards the minor must be at the 300-level or above.



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- 6.6.5 At least 9 credit hours towards the minor must have been completed at the PI.
- 6.6.6 To declare a minor, a student must complete at least 30 credit hours and be in good academic standing.
- 6.6.7 To declare a minor, a student must submit the “Declaration of Major and Minor” Form to the Registrar Office by week 12 of a regular semester. The approved declaration will be in effect as of the following regular semester. The deadline for declaring a minor is the regular semester prior to a student’s graduation semester. All declared minors must be stated on the “Graduation Application” Form.
- 6.6.8 The Academic Catalog of Record for a student’s major will be used to audit the minor. If the minor is not listed in that Academic Catalog, then the first Academic Catalog that lists the minor will be used.
- 6.6.9 For academic advising on minors refer to PIP 3300 (Academic Advising).
- 6.7 Graduation requirements for a student’s major and minor (as applicable) must be completed at the same time. Transcripts will indicate a student’s major(s) and minor(s) as applicable. The degree certificate will state a student’s major only. A student graduating with double majors will receive two separate degree certificates.

SECTION 7 RESPONSIBILITIES AND PROCEDURES

- 7.1 The Provost shall cause the terms of this policy to be observed.

SECTION 8 CANCELLATION

- 8.1 None.

SECTION 9 REVIEW STATEMENT

- 9.1 This policy shall be reviewed on a regular time frame to be determined by the President or the President’s designee. Upon such review, the President or President’s designee may recommend to the Governing Board that the policy be amended or repealed.



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SECTION 10 SIGNATURES

Chair, Academic Policies Committee Date

Provost Date

President Date