



PRINCE MOHAMMAD BIN FAHD UNIVERSITY

ACADEMIC CATALOG

SCHOOL YEAR

2007 - 2008 A.D.

1428 - 1429 A.H.

Prince Mohammad Bin Fahd University
Al Khobar, Saudi Arabia

ACADEMIC CATALOG

TABLE OF CONTENTS

| <u>Item</u> | <u>Page</u> |
|--|------------------|
| Welcome from the Rector | <u>1</u> |
| Academic Calendar 2007-2008 | <u>2</u> |
| General Information about PMU | <u>5</u> |
| Vision and Mission..... | <u>5</u> |
| Academic Focus..... | <u>6</u> |
| Location | <u>9</u> |
| Facilities | <u>9</u> |
| Admission Requirements and Procedures..... | <u>10</u> |
| Required High School Preparation | <u>10</u> |
| Admission to the Preparatory Program | <u>10</u> |
| Admission to Degree Studies..... | <u>11</u> |
| Acceptance and Denial | <u>15</u> |
| Placement in a College..... | <u>15</u> |
| Registration Procedures | <u>15</u> |
| Registration for a New Academic Year | <u>15</u> |
| New Student Orientation..... | <u>16</u> |
| Transfer Student Registration | <u>16</u> |
| Changes in Student Status | <u>16</u> |
| Scholarships and Financial Assistance..... | <u>17</u> |
| PMU Scholarships..... | <u>17</u> |
| Sponsored Scholars Program..... | <u>18</u> |
| Summer Work Program..... | <u>19</u> |
| Academic Regulations | <u>19</u> |
| Students and Student Guidelines..... | <u>19</u> |
| Academic Courses..... | <u>22</u> |
| Course Prerequisites..... | <u>23</u> |
| Meeting Degree Requirements..... | <u>24</u> |
| Academic Support and Assistance | <u>26</u> |
| Student Records | <u>27</u> |
| Enforcement of Academic Regulations..... | <u>28</u> |
| Graduation..... | <u>34</u> |
| PREPARATORY PROGRAM AND CORE CURRICULUM | <u>35</u> |
| Overview of the Preparatory Program..... | <u>35</u> |
| Preparatory Program Course Descriptions..... | <u>35</u> |
| Communication – PRPC | <u>35</u> |
| Writing – PRPW | <u>37</u> |
| Mathematics – PRPM..... | <u>38</u> |
| Study Skills and Learning Strategies – PRPL..... | <u>38</u> |
| Overview of the Undergraduate Core Curriculum | <u>39</u> |

| | |
|---|------------------|
| Core Curriculum Course Descriptions | <u>41</u> |
| Learning Outcome Assessment – ASSE..... | <u>41</u> |
| Biology – BIOL..... | <u>41</u> |
| Chemistry – CHEM | <u>41</u> |
| Communication – COMM | <u>42</u> |
| Economics – ECON..... | <u>43</u> |
| Geography – GEGR..... | <u>43</u> |
| Geology – GEOL | <u>43</u> |
| History – HIST | <u>43</u> |
| Mathematics – MATH..... | <u>44</u> |
| Physics – PHYS | <u>45</u> |
| Psychology – PSYC | <u>43</u> |
| University Core – UNIV | <u>46</u> |
| COLLEGE OF ENGINEERING | <u>47</u> |
| College Overview | <u>47</u> |
| Vision and Mission..... | <u>47</u> |
| Degrees Offered..... | <u>47</u> |
| Admissions Process and Requirements..... | <u>47</u> |
| Required Courses in the Preparatory Program..... | <u>48</u> |
| Performance Expectations | <u>48</u> |
| Required Grade Average – Civil, Electrical, | |
| Mechanical Engineering..... | <u>48</u> |
| Required Grade Average – Interior Design | <u>48</u> |
| Student Computing Requirements..... | <u>49</u> |
| Components of Degree Programs..... | <u>50</u> |
| Majors in Civil, Electrical, and Mechanical Engineering..... | <u>50</u> |
| Major In Interior Design..... | <u>51</u> |
| Capstone Series – Civil, Electrical, Mechanical Engineering..... | <u>52</u> |
| Capstone Courses– Interior Design..... | <u>53</u> |
| Courses Required for Majors | <u>53</u> |
| Civil Engineering | <u>53</u> |
| Electrical Engineering | <u>54</u> |
| Mechanical Engineering..... | <u>55</u> |
| Interior Design | <u>56</u> |
| Course Sequence for Majors..... | <u>57</u> |
| Civil Engineering | <u>57</u> |
| Electrical Engineering | <u>59</u> |
| Mechanical Engineering..... | <u>61</u> |
| Interior Design | <u>63</u> |

| | |
|---|-------------------|
| Undergraduate Courses Offered by the College of Engineering..... | <u>66</u> |
| Assessment – ASSE..... | <u>66</u> |
| Civil Engineering – CVEN..... | <u>66</u> |
| Electrical Engineering – EEEN..... | <u>69</u> |
| General Engineering – GEEN..... | <u>72</u> |
| Interior Design – IDES..... | <u>74</u> |
| Mechanical Engineering – MEEN..... | <u>77</u> |
| COLLEGE OF INFORMATION TECHNOLOGY | <u>82</u> |
| College Overview | <u>82</u> |
| Vision and Mission..... | <u>82</u> |
| Degrees Offered..... | <u>83</u> |
| Admissions Process and Requirements..... | <u>83</u> |
| Required Courses in the Preparatory Program..... | <u>83</u> |
| Performance Expectations | <u>83</u> |
| Required Grade Average | <u>83</u> |
| Student Computing Requirements..... | <u>84</u> |
| Components of Degree Programs..... | <u>84</u> |
| Majors in IT, Computer Science, Computer Engineering..... | <u>84</u> |
| Capstone Series | <u>85</u> |
| Courses Required for Majors | <u>85</u> |
| Information Technology..... | <u>85</u> |
| Computer Science | <u>87</u> |
| Computer Engineering..... | <u>88</u> |
| Course Sequence for Majors..... | <u>89</u> |
| Information Technology..... | <u>89</u> |
| Computer Science Degree | <u>91</u> |
| Computer Engineering..... | <u>93</u> |
| Undergraduate Courses Offered by the College of | |
| Information Technology | <u>96</u> |
| Assessment – ASSE..... | <u>96</u> |
| Computer Engineering – COEN..... | <u>96</u> |
| Computer Science – COSC..... | <u>98</u> |
| General Information Technology – GEIT..... | <u>99</u> |
| Information Technology – ITAP..... | <u>101</u> |
| COLLEGE OF BUSINESS ADMINISTRATION | <u>104</u> |
| College Overview | <u>104</u> |
| Vision and Mission..... | <u>104</u> |
| Degrees Offered | <u>105</u> |
| Admissions Process and Requirements..... | <u>105</u> |
| Required Courses in the Preparatory Program..... | <u>105</u> |
| Performance Expectations | <u>106</u> |
| Required Grade Average | <u>106</u> |
| Student Computing Requirements..... | <u>106</u> |
| Components of Degree Programs..... | <u>106</u> |
| Majors in Accounting, Finance, Business Administration, MIS | <u>106</u> |
| Capstone Course | <u>107</u> |

| | |
|---|-------------------|
| Courses Required For Majors | <u>108</u> |
| Accounting | <u>108</u> |
| Finance | <u>109</u> |
| Business Administration..... | <u>109</u> |
| MIS..... | <u>110</u> |
| Course Sequence for Majors..... | <u>111</u> |
| Accounting..... | <u>111</u> |
| Finance | <u>113</u> |
| Business Administration..... | <u>116</u> |
| MIS | <u>118</u> |
| Undergraduate Courses Offered by the College of | |
| Business Administration..... | <u>121</u> |
| Accounting – ACCT..... | <u>121</u> |
| Assessment – ASSE..... | <u>122</u> |
| Business Administration – BUSI | <u>123</u> |
| Finance – FINA | <u>125</u> |
| Management Information Systems – MISY | <u>127</u> |
| EXECUTIVE MBA CURRICULUM | <u>130</u> |
| Vision..... | <u>130</u> |
| Admission Requirements..... | <u>130</u> |
| Educational Background | <u>130</u> |
| Work Experience | <u>130</u> |
| Standardized Tests..... | <u>131</u> |
| Support, References, and Interview | <u>131</u> |
| The Educational Experience | <u>131</u> |
| Content of the Program..... | <u>131</u> |
| Program Participants | <u>131</u> |
| Size of the Program..... | <u>132</u> |
| Teams | <u>132</u> |
| Student Performance Standards | <u>132</u> |
| Technology and the Executive MBA | <u>132</u> |
| Program Structure..... | <u>133</u> |
| Class Schedule | <u>133</u> |
| Residency Days..... | <u>133</u> |
| Course Sequence for the Executive MBA..... | <u>134</u> |
| Graduate Courses Offered in the Executive MBA Program..... | <u>135</u> |

WELCOME FROM THE RECTOR

I have the pleasure to introduce the Academic Programs and Curricula Catalog of Prince Mohammad Bin Fahd University. PMU is a new institution working towards achieving a brighter future for students in the Kingdom of Saudi Arabia. According to the vision of the university's founders, PMU will play a major role in achieving the comprehensive development of society and ensuring its graduates' ability to face contemporary and future events. Graduates will be the pride of the Kingdom, having full confidence in their personal skills and capabilities while taking an active part in the development and progress of society. The opening of PMU allows the realization of this vision.

The university strives to provide a rich and purposeful educational environment as a prerequisite for the student's success and ability to excel. This environment will enable the student, in an effective way, to enhance the welfare of himself and his nation.

PMU has adopted a philosophy that focuses on the student. This includes: the academic programs, curricula and extra curricular activities. In return, PMU students are expected to do their utmost in order to achieve the expected goals and to maintain productive and effective relationships with their classmates and mentors.

This catalog is designed to help students, their parents, and those interested in university education develop a better understanding not only of how PMU operates but how it provides an effective and comprehensive education through the efficient use of its resources, facilities, and services. The catalog reflects the university's continued commitment to achieving distinction and excellence in all aspects of its activities and functions, including providing programs, curricula, and courses of the highest quality in a highly satisfying work environment.

Dr. Issa H. Alansari
Rector
Prince Mohammad Bin Fahd University

* Academic Calendar 2007/2008

Fall Semester - September 2007

| Arabic Date | Day | English Date | Events |
|------------------------------|-------------|------------------------|---|
| 14 Rabi'II - 2 Sha'ban, 1428 | Tue. - Wed. | 1 May - 15 Aug., 2007 | Application for new admissions 2007-2008 |
| 7 Sha'ban, 1428 | Mon. | 20 Aug., 2007 | New faculty reporting & orientation |
| 12 Sha'ban, 1428 | Sat. | 25 Aug., 2007 | Reporting date for the returning faculty |
| 12 - 16 Sha'ban, 1428 | Sat. - Wed. | 25 - 29 Aug., 2007 | Accepted new students posted on the PMU web Site |
| 19 - 22 Sha'ban, 1428 | Sat. - Tue. | 1 - 4 Sept., 2007 | Registration confirmation for pre-registered students, Registration and orientation for the new students |
| 26 Sha'ban, 1428 | Sat. | 8 Sept., 2007\ | Classes begin |
| 26 - 30 Sha'ban, 1428 | Sat. - Wed. | 8 - 12 Sept., 2007 | Late registration and Add/ Drop |
| 1 Ramadan, 1428 | Thu. | 13 Sept., 2007 | First day of Ramadan, Adjust class times |
| 7 Ramadan, 1428 | Wed. | 19 Sept., 2007 | Last day for dropping courses without permanent record |
| 11 Ramadan, 1428 | Sun. | 23 Sept., 2007 | National Day holiday |
| 21 Ramadan, 1428 | Wed. | 3 Oct., 2007 | Last day of classes before Eid Al-Fitr holiday |
| 8 Shawwal, 1428 | Sat. | 20 Oct., 2007 | Classes resume |
| 14 - 18 Dhu Al-Qaadah, 1428 | Sat. - Wed. | 24 - 28 Nov., 2007 | Early registration for spring semester 2008 |
| 18 Dhu Al-Qaadah, 1428 | Wed. | 28 Nov., 2007 | Last day for withdrawing courses with grade of "W" |
| 2 Dhu Al-Hejjah, 1428 | Wed. | 12 Dec., 2007 | Last day of classes before Eid Al-Adha holiday |
| 19 Dhu Al-Hejjah, 1428 | Sat. | 29 Dec., 2007 | Classes resume |
| 17 Muharram, 1429 | Sat. | 26 Jan., 2008 | Last day for withdrawing courses with grade of "WP/WF", Last day of classes. |
| 18 - 26 Muharram, 1429 | Sun. - Mon. | 27 Jan. - 4 Feb., 2008 | Final exams |
| 28 Muharram, 1429 | Wed. | 6 Feb., 2008 | Deadline for submitting grades to the Registrar's office |
| 2 - 6 Safar, 1429 | Sat. - Wed. | 9 - 13 Feb., 2008 | Mid-year break |

* The Academic calendar is subject to change in consensus with the Ministry of Higher Education regulations

Saturdays= 16, Sundays= 16, Mondays= 16, Tuesdays= 16, Wednesdays= 16

*Academic Calendar 2007/2008

Spring Semester - February 2008

| Arabic Date | Day | English Date | Events |
|---------------------------|-------------|---------------------|--|
| 4 - 6 Safar, 1429 | Mon. - Wed. | 11 - 13 Feb., 2008 | Registration confirmation for pre-registered students, Registration period for the new students |
| 9 Safar, 1429 | Sat. | 16 Feb., 2008 | Classes begin |
| 9 - 13 Safar, 1429 | Sat. - Wed. | 16 - 20 Feb., 2008 | Late registration and Add/ Drop |
| 20 Safar, 1429 | Wed. | 27 Feb., 2008 | Last day for dropping courses without permanent record |
| 3 Rabee' II, 1429 | Wed. | 9 April, 2008 | Last day of classes before mid semester break |
| 6 - 10 Rabee' II, 1429 | Sat. - Wed. | 12 - 16 April, 2008 | Mid semester break |
| 13 Rabee' II, 1429 | Sat. | 19 April, 2008 | Classes resume |
| 20 - 22nd Rabee' II, 1429 | Sat. - Mon. | 26 - 28 April, 2008 | Early registration for summer semester 2008 |
| 24 Rabee' II, 1429 | Wed. | 30 April, 2008 | Last day for withdrawing courses with grade of "W" |
| 12 - 16 Jumada I, 1429 | Sat. - Wed. | 17 - 21 May, 2008 | Early registration for fall semester 2008/2009 |
| 7 Jumada II, 1429 | Wed. | 11 June, 2008 | Last day for withdrawing courses with grade of "WP/WF", Last day of classes |
| 10 - 19th Jumada II, 1429 | Sat. - Mon. | 14 - 23 June, 2008 | Final exams |
| 21st Jumada II, 1429 | Wed. | 25 June, 2008 | Deadline for submitting grades to the Registrar's office |

* The Academic calendar is subject to change in consensus with the Ministry of Higher Education regulations

Saturdays= 16, Sundays= 16, Mondays= 16, Tuesdays= 16, Wednesdays= 16

*Academic Calendar 2007/2008

Summer Semester - July 2008

| Arabic Date | Day | English Date | Events |
|------------------------|----------------|-------------------------|--|
| 2 Rajab, 1429 | Sat. | 5 July, 2008 | Registration confirmation for pre-registered students, Classes begin |
| 5 Shaaban, 1429 | Wed. | 6 Aug., 2008 | Last day for withdrawing courses with grade of "W" |
| 26 Shaaban, 1429 | Wed. | 27 Aug., 2008 | Last day for withdrawing courses with grade of "WP/WF", Last day of classes |
| 29 Shaaban, 1429 | Sat. - Mon. | 30 August -1 Sep., 2008 | Final exams |
| 3 Ramadan, 1429 | Wed. | 3 September, 2008 | Deadline for submitting grades to the Registrar's office |

* The Academic calendar is subject to change in consensus with the Ministry of Higher Education regulations

Saturdays= 8, Sundays= 8, Mondays= 8, Tuesdays= 8, Wednesdays= 8

GENERAL INFORMATION ABOUT PMU

Prince Mohammad Bin Fahd University (PMU) is a private institution of higher education licensed by the Ministry of Higher Education and located in the Al-Khobar region of the Eastern Province of Saudi Arabia. The initiative to establish the university has been taken by a group of renowned individuals from the Eastern Province under the auspices of HRH Prince Mohammad Bin Fahd Bin Abdulaziz.

PMU is a learner-centered community where the emphasis is on students. Technology infuses the educational experience, giving the students with unique competencies, that empower them as individuals, and enables them to contribute to the Kingdom's business and industrial communities. These qualities make PMU a unique institution in Saudi Arabia, yet it is unquestionably a Saudi university, that fully embodies the cultural and religious values of the Saudi people.

The university operates under the regulations of the Ministry of Education that pertain to privately operated post-secondary educational institutions in the KSA. It is governed by a Board of Trustees and a University Council according to the regulations of the Ministry regarding the governance of private post-secondary institutions.

Vision and Mission

The continuing rapid development of Saudi Arabia and the growth of various new sectors of the Kingdom's economy calls for a substantial number of graduates capable of leadership in diverse fields of business, engineering, information technology, culture, education, community development and public administration. New universities will be among the potential contributors to ensure that the Kingdom has the necessary manpower with the appropriate competencies (skills, knowledge, and attitude), technical knowledge, and foresight to rise to the challenges ahead.

The university founders' vision is to be a unique and distinguished higher education institution that participates in:

- Preparing future leaders in various fields of human knowledge and its application.
- Enriching and developing intelligence.
- Exploring innovative methodologies and technologies to achieve its objectives.
- Breaking the barrier between academic and business society.

The university mission is to achieve the following objectives:

- Contribute to the advancement of human intelligence and promulgation and development of knowledge.
- Prepare specialized candidates in various fields of human knowledge through utilizing modern technologies in the education process.
- Transform the graduate to play a pioneering and leading role in the community, enabling him or her to take responsibilities and contribute to solving problems through innovative thinking, collective work, reflection and self-development.
- Link academic programs and specializations with actual requirements of the surrounding work environment. This will be achieved by maintaining effective participation and cooperation between the University and local business firms.
- Guide research activities to create solutions for persistent problems in surrounding communities, through applied research and technical consultation.
- Provide community service through continuous training and education.

Academic Focus

PMU prepares high quality graduates for employment in high demand fields in the Eastern Province by educating the “whole” person, PMU recognizes that success in the world depends not only on knowledge of a specific academic discipline, but also on a broader set of skills and abilities.

Graduate Competency Profile: PMU graduates will be known for their distinctive competencies. The university has designated six core areas intended to ensure that PMU students possess knowledge and abilities to be successful in their chosen fields and to contribute to the development of their community and the Kingdom. The six PMU core competencies are:

- *Communication:* the ability to communicate effectively in both English and Arabic in professional and social situations.
- *Technological Competence:* the ability to use modern technologies to acquire information, communicate, solve problems, and produce intended results.
- *Critical Thinking and Problem Solving:* the ability to reason logically and creatively to make informed and responsible decisions and achieve intended goals.

- *Professional Competence*: the ability to perform professional responsibilities effectively in both local and international contexts.
- *Teamwork*: the ability to work effectively with others to accomplish tasks and achieve group goals.
- *Leadership*: the ability to be informed, effective, and responsible leaders in the family, the community, and the Kingdom.

Information Technology Emphasis: A distinctive characteristic of PMU is its emphasis on the utilization of information technology resources throughout the institution, in all academic programs and courses, and in the management of the university. PMU is known for its pervasive use of state-of-the-art information technologies that enable the university's distinctive, learning-centered environment. The infusion of technology into the university environment enables students to obtain the information they need, when and where they need it, so they can effectively pursue their goals of academic excellence and professional competencies.

Academic Program Structure: The structure of PMU academic programs follows the North American model that utilizes the credit hour system as a measure of time devoted to each course. An intensive bridge program prepares entering high school graduates for university study. An academic core curriculum forms a common basis for all degree programs. Individual degree majors provide the academic specialization and the name of the degree awarded.

Language of Instruction: English is the language of instruction in all degree programs and courses except those devoted to Arabic Language and Islamic Studies.

Preparatory Program: In order to meet the high admissions standards for the degree programs, PMU offers a non-credit program of study for students who need preparation in the English language, mathematics, and study skills and learning strategies.

Academic Core Curriculum: All degree programs include a core of academic subjects. These subjects are distributed among five principal areas: PMU competencies, written and oral communication, mathematics, natural and physical sciences, and social and behavioral sciences. In addition, all students complete PMU's Assessment Capstone Series of courses, in which they demonstrate their abilities to assimilate and apply the knowledge and skills they have learned. The content of the capstone series varies according to the major.

Undergraduate Degree Programs: The academic degree programs offered by PMU are organized into three colleges as follows:

| | |
|--|-----------------|
| College of Engineering | |
| B.S. in Electrical Engineering | Male |
| B.S. in Mechanical Engineering | Male |
| B.S. in Civil Engineering | Male |
| B.S. in Interior Design | Female |
| College of Information Technology | |
| B.S. in Information Technology | Male and Female |
| B.S. in Computer Science | Male and Female |
| B.S. in Computer Engineering | Male and Female |
| College of Business Administration | |
| B.S. in Accounting | Male and Female |
| B.S. in Business Administration | Male and Female |
| B.S. in Finance | Male and Female |
| B.S. in Management Information Systems | Male and Female |

Graduate Degree Program: The initial graduate program offered by PMU to both male and female students is an Executive Masters in Business Administration.

Learning Modes: Consistent with the commitment to developing student learning outcomes and competencies, PMU emphasizes student oriented teaching and learning methodologies throughout all academic programs. Courses utilize independent learning tasks, group and team based projects, and capstone projects, among other techniques. Information technology based resources and methods are an important part of the learning process.

Learning Resources Center (LRC): The PMU Learning Resources Center encompasses more than a traditional library. Consistent with the emphasis on information technology, the LRC offers extensive access to electronic-based resources. In support of student independent learning strategies, the facility provides spaces for students to collaborate in teams on group projects, or to meet with faculty and staff for tutorials and/or small group activities.

Instruction and Research Emphasis: The initial focus of PMU is placed on the development of high quality instructional programs. Research is also important to maintaining a creative environment for faculty, staff, and students. Consequently, the academic programs and staff recruiting plans emphasize maintaining excellence as a teaching institution along with a strong program of research and service activities.

Center for Research Development and Continuing Education: PMU staffs a center for supporting external research and services activities, and for the delivery of instructional services to clients and learners off-campus by the means most appropriate to the client. These include distance learning programs or traditional courses offered at locations outside PMU's campus.

Location

PMU is located on Half Moon Bay Road in a developing area near the coast at Al-Khobar. The university's location in the Eastern Province is particularly appropriate to serving the business, industrial and community needs of the KSA. The Dammam-Dhahran-Al-Khobar triangle has undergone a dramatic transformation in recent years, developing into a booming industrial region with commercial centers in Al-Khobar and Dammam. PMU is located just 100 Km away from the Jubail Industrial City, one of the new industrial cities recently built in the Kingdom.

Facilities

The university campus has been designed with care to provide facilities for a full range of academic and student services in a manner that recognizes and maintains the cultural and religious values of the Kingdom. In translating PMU's vision and mission into physical reality, the university's architects have successfully created a university with a distinct and outstanding architectural image. The university design includes buildings that are shaped and located to create pleasant and inviting spaces. Plazas and covered walkways facilitate students' movement throughout the university. The entire concept is built on the desire to facilitate, encourage, and celebrate the university's interactive learning environment.

The campus is symmetrically divided to provide facilities for male and female students.

The male campus houses academic facilities for male instruction in the College of Engineering, the College of Business Administration, and the College of Information Technology. It also houses facilities for male instruction in the Preparatory Program and the Core Curriculum.

The university administration building is located on the male portion of the campus.

The female campus houses academic facilities for female instruction in the College of Business Administration, the College of Information Technology, and the Department of Interior Design. It also houses facilities for female instruction in the Preparatory Program and the Core Curriculum.

At the campus center, male and female students have access through separate entrances to food service at the university cafeteria. They also have access through separate entrances to the information available at the LRC. Inside the LRC building, each gender has its own lobby, stacks, circulation/reference desk, and study areas.

The LRC provides an attractive central space that is conducive to reading, reflection, study, and group and individual learning activities. When the university is at full operation, the LRC will accommodate a book collection of approximately 75,000 volumes.

The LRC also provides learning enrichment services in mathematics, reading, writing, and study skills to ensure the success of the student in the PMU learner-centered environment.

The main academic campus also contains athletic facilities. At a future date, student housing will be constructed on a nearby parcel of land.

ADMISSION REQUIREMENTS AND PROCEDURES

Required High School Preparation

Students enrolling in PMU must be graduates of the Kingdom of Saudi Arabia secondary school with an earned General Secondary Education Certificate, or they must have received equivalent secondary school preparation in another educational system. Students are expected to have firm academic foundations, especially in English and mathematics.

Admission to the Preparatory Program

Though it is possible to enter PMU directly from high school, most students entering PMU will first study in the university's Preparatory Program. Placement of students at the proper level of the Preparatory Program's courses is made according to the results of examinations which are administered as part of the admission procedures.

Deadline for Applications

The deadline for application to the Preparatory program is July 1st prior to the September term. All materials supporting the application must be submitted by August 1st.

Admission to the Preparatory Program and Direct Admission from High School.

- *Application form and fee:* A completed application form accompanied by the prescribed application fee.
- *Secondary School grades:* Results of the General Secondary Education Certificate.
- *Total score of 60% on the Aptitude Test*
- *PMU Standard Battery Test.*
- *Interview:* The interview is conducted by the Admissions Committee; it assesses the student's ability to succeed at PMU.

The final decision on whether or not a student's achievement levels from non-Saudi educational experiences are equivalent to KSA academic qualifications rests with the Admissions Committee. Foreign credentials and grading schemes or systems employed by schools that educate expatriates living in the Kingdom will be converted by the committee to their KSA equivalent.

Non-Saudi students should be graduates of a secondary school. The applicant must have successfully completed a university-bound program heavily emphasizing science and mathematics.

Non-Saudi applicants may submit results of either the General Aptitude and Abilities Test or the SAT exam.

Admission to Degree Studies

Students may be admitted into degree studies at PMU via a number of means – successful completion of the Preparatory Program, direct entry from secondary school, or transfer from other post-secondary programs.

Deadline for Applications

The deadline for application to the PMU degree programs is July 1st prior to the September term. All materials supporting the application must be submitted by August 1st.

Admission from the PMU Preparatory Program

All students who successfully complete the Preparatory Program with satisfactory grades (C or better) will be guaranteed a place in the university. However, spaces available in individual degree programs are limited, and the number of students seeking admission to these programs may exceed the program's capacity. To assist each program in selecting applicants whose aptitude, skills, and preparation are best suited to its curriculum, the following steps will be required:

- *Preparatory Program Certificate of Completion:* Successful completion of the PMU Preparatory Program (English writing and communication, mathematics, and study skills).
- *PMU Placement Test results:* For students seeking admission to advanced courses required by certain majors, placement tests will be given to determine the student's readiness for the following courses:
 - MATH 1321: Pre-Calculus Mathematics or MATH 1422: Calculus I
 - CHEM 1411 Introductory Chemistry or CHEM 1421: Chemistry for Engineers I
 - PHYS 1411: Introductory Physics or PHYS 1421: Physics for Engineers I

These exams are given toward the end of the Preparatory Program in time for use by the respective college faculty during the summer.

- *Interview:* An interview in English with a PMU faculty representative from the degree program to which the student is applying. The interview determines if an applicant is ready to meet the challenges of intense degree study. Interviews are conducted toward the end of the Preparatory Program in time for use by the faculty during the summer.
- *Essay:* An essay in English directed to both PMU English writing and communications faculty and the faculty of the degree program to which the student is applying.

Essay topics are assigned by the faculty of the college to which the student is applying.

The Department of Interior Design may substitute a design portfolio for the essay requirement.

Essays or portfolios are submitted toward the end of the Preparatory Program in time for use by the Admissions Committee during the summer.

Direct Admission from High School

Some students, particularly those from other countries or from international schools in the Kingdom where the medium of instruction is English, may seek to bypass the Preparatory Program and be placed directly into degree studies. The student's eligibility for admission directly into degree studies is based on performance on standardized placement examinations given after admission to the Preparatory Program.

The student initially follows the same procedures as applicants for the Preparatory Program:

- *Application form and fee:* A completed application form accompanied by the prescribed application fee.
- *Secondary school grades:* results of the General Secondary Education Certificate.
- *TOEFL Score:* a minimum of 510 or equivalent
- *Essay.*
- *Interview.*

Those admitted advance to the next phase of the process. Late in the Spring semester, the following will occur:

- *Additional testing:* At the discretion of the Admissions Committee, applicants take the final exams given to Preparatory Program students in the highest level English and math courses.
- *College requirements:* For admission to one of PMU's colleges, students must complete the steps required of graduates from the Preparatory Program.
- *PMU placement tests* (SAT II subject area tests in math, chemistry, and physics may be substituted)

Admission from Other Colleges and Universities

Students already attending post-secondary institutions, and feel qualified to begin their degree program at PMU immediately, may apply by submitting the following materials:

- *Transfer application for admission:* A completed transfer application form accompanied by the prescribed application fee.

- Secondary school grades: Results of the General Secondary Education Certificate.
- All official transcripts from post-secondary institutions attended: A minimum cumulative grade point average of 2.0 (C) on a 4.0 grade scale.
- IELTS exam: A satisfactory score on IELTS or an equivalent standardized test.

Academic Standing of Transfer Students

The university allows no more than 70% of a student's credits toward a PMU degree to be brought as transfer credits from other institutions. Subject to compliance with Undergraduate Study and Examinations Regulations laid out by the Ministry of Higher Education, at least 30% of the degree course requirements must be completed in residence at PMU.

All transfer students are required to complete PMU University Core courses, regardless of the level at which he or she enters the university. These courses are: Professional Development and Competencies, Critical Thinking and Problem Solving, Leadership and Teamwork, Writing, Oral Communication, and Islamic and Arabic Studies. Transfer students must also complete the university's Assessment Capstone courses.

Transfer Credits for Transfer Students

The acceptability of transferred courses to PMU is determined by the Department of Enrollment Management in consultation with individual academic departments based on the recognition, accreditation, and nature of the previous institution and on the individual courses.

Courses passed with a grade of D+ or equivalent from another institution do not transfer to PMU.

Residence Requirements for Transfer Students

Residence requirements for degree completion at PMU (defined as those courses which must be completed at the university) are set by the academic departments. These requirements must be fulfilled regardless of the number of hours transferred from other institutions.

Acceptance and Denial

The final decision on admission is communicated to the applicant in writing and a copy is placed in the applicant's file.

Unsuccessful applicants wishing to be considered for future terms must submit a new application for the intended future term. Other documentation (secondary school certificate and standardized test scores) already submitted may still be used if they have been retained by PMU.

Placement in a College

Admission to degree programs at PMU is determined by a number of factors, including the student's grade point average in Preparatory Program courses, the interview, the essay, and PMU designed and administered placement tests. These measures are combined to determine ultimate placement in the degree programs.

Representatives from the various colleges along with faculty representing appropriate Core Curriculum subject areas meet soon after the conclusion of Preparatory to admit students into the College of Engineering (including the Department of Interior Design), the College of Information Technology, or the College of Business Administration. Where demand exceeds the number of places available in specific majors, unsuccessful applicants may elect another degree program in order to continue at PMU.

REGISTRATION PROCEDURES

Registration procedures are outlined in the schedules published by the Office of the Registrar and available from the Registrar during pre-registration and registration.

This schedule provides pertinent information and indicates the registration steps along with the place, date and time for each step. It also lists initial course offerings. A continually updated list of these offerings is also posted on PMU's Web site. Students should carefully read the registration guide as they prepare for registration.

Registration for a New Academic Year

Registration involves three principal steps:

1. Advisement and consultation
2. Selection and registration of courses
3. Payment of fees

In coordination with their advisor, students complete the registration card obtained from the Office of the Registrar. Students may also register online, though they still will be required to consult their advisor. Instructions for online registration are available from the Office of the Registrar.

The class schedule and the university catalog contain necessary information regarding registration instructions and general items of information, policies, and procedures.

New students must make sure that all documents required for finalizing their admission, particularly those indicated in the letter of admission, are submitted to the Office of Admissions before registration begins.

New Student Orientation

Prior to registration, an academic orientation is scheduled for all new students to acquaint them with the general academic university regulations, policies and services. Each college in the university also conducts an orientation to acquaint students with its specific regulations and the registration process at PMU. During orientation, the Office of Student Affairs provides an introduction to university life through campus tours and visits, meetings, lectures, demonstrations and other activities. Attendance at these programs is mandatory for all new students.

Transfer Student Registration

Transfer students cannot register for subsequent courses if their transferred courses do not meet the prerequisite requirements. Transfer students must complete their transfer file and be awarded transfer credits during their first semester at PMU.

Changes in Student Status

Changes of College or Major

Students seeking to change their major within their college/school or to change their college/school must complete the appropriate form available from the Office of the Registrar. Requests for a change of major or change of college/school should be submitted to the Office of the Registrar at least two weeks before the registration time of the affected semester. To be eligible for a change of major, a student must meet the requirements for admission to the new major, and the request must be approved by the dean of the new major.

Adding and Dropping Courses

Students are allowed to add and/or drop courses during the first week of fall and spring classes. Courses dropped during this period are not recorded in the student's transcripts.

Students interested in dropping or adding courses should first consult with their respective advisors.

Withdrawal from Courses

Students are permitted to withdraw from courses after submitting the appropriate withdrawal form. Students are expected to maintain a minimum course load of 12 credits, but under special circumstances the dean of the college/school may allow students to drop below 12 credits. If a student drops below 12 credits the fee schedule will revert to the “per credit hour tuition and fees”.

Withdrawal from courses should occur no later than the end of the 10th week of classes. A student who withdraws from a course before this date receives a grade of W for the course on the transcript. This grade does not impact the student’s GPA.

A student who withdraws from a course from the 11th week up to the last day of classes will receive a grade of either WP or WF for the course. A grade of WP does not impact the student’s GPA. A grade of WF is recorded on the student’s transcript as 0.00 grade points for the course, and this will be used in calculating the student’s GPA. The determination as to whether a student receives WP or WF will be upon the recommendation of the course instructor.

FINANCIAL ASSISTANCE AND SCHOLARSHIPS

Financial Assistance in the form of scholarships, loans and summer work programs are available on limited bases to students who have excellent academic potential.

PMU Scholarships

PMU Scholarships are awarded through institutional funds. To qualify for a PMU Scholarship, recipients must:

- Hold a General Secondary Education Certificate with an average of 95% or above.
- Meet all admissions requirements.
- Document distinguished intellectual and academic performance
- Possess a record of good conduct
- Achieve high performance on a personal interview

Scholarship recipients are selected by members of the Scholarship Committee. The Vice Rector for Student Affairs and the Vice Rector of Academic Affairs appoint the members of that committee which consists of two faculty members each from the Preparatory Program, the College of Engineering, the College of Information Technology, and the College of Business Administration. At the discretion of the Vice Rector for Student Affairs and the Vice Rector for Academic Affairs, an additional member may be added to represent the Department of Interior Design. It also includes the Director of Student Financial Aid and the Director of Enrollment Management. The two directors are non-voting ex-officio members of

the committee.

Students remain eligible for the scholarship as long as they are enrolled at PMU, maintain a required GPA of 2.5 and display exemplary behavior. Accurate information must be provided at all times or the student will be disqualified immediately.

Sponsored Scholars Program

The Sponsored Scholars Program is funded through partnerships with the surrounding business community and provides a means to connect the private sector with talented students who may later become excellent employees.

To qualify for the Sponsored Scholars Program recipients must:

- Hold a High School Certificate (awarded in the past 3 years) with an average of 90% or above
- Meet all admissions requirements
- Document distinguished intellectual and academic performance
- Possess a record of good conduct
- Receive high performance marks on a personal essay
- Meet the sponsor's designated criteria

Sponsors will furnish the Scholarship Committee with recommendations. The Committee evaluates the applicants and makes the final decision.

Students remain eligible for the scholarship as long as they are enrolled at PMU, maintain a required GPA of 2.5 and display exemplary behavior. Accurate information must be provided at all times or the student will be disqualified immediately.

Human Resources Development Fund

The Saudi Government offers the student an opportunity to secure a loan sponsored by The HR Development Fund.

Students eligible for the HR fund meet the following criteria:

- Demonstrate satisfactory academic performance
- Meet student admission requirements.
- Complete the Financial Aid Application available at our offices, and providing all necessary documents

For more information concerning calendars and contracts please visit the site below:

www.hrdf.org.sa

Summer Work Program

Summer employment opportunities are available for students to work with government and private sector entities. Preference will be given to students with financial need who will be working in an area related to their field of study.

ACADEMIC REGULATIONS

Students and Student Guidelines

Student Academic Load

A student admitted to and enrolled in a degree program usually registers for 15 to 19 credits each semester. The required minimum load for all students is 12 credits per semester, and the maximum load is 20 credits per semester. Under special circumstances, a student with a cumulative GPA of 3.25 or better may secure the permission of his or her dean to register for up to 22 credits in any one semester. Students are assessed SR 1875 per credit hour over the maximum load of 20 credits per semester.

The minimum graduation requirements for a bachelor's degree vary from 120 to 139 credits depending on the program of study. Samples of study plans are provided in this catalog for each program. The degree programs have been designed to be completed in four years. However, some students may require additional time.

Residence Requirements

Residence requirements for degree completion at PMU (defined as those courses which must be completed at the university) are set by the academic departments. However, it is generally expected that the final two years are completed at the university.

PMU residence requirements must be fulfilled regardless of the number of hours transferred from other institutions. These requirements are in addition to the University Core course requirements which must also be taken at PMU.

Categories of Students

Full-time Students

To be considered on full-time status, a student must carry a minimum course load of 12 credits per semester, with the normal load being 15. Under special circumstances, the dean of the school or college may allow students to drop their course load below 12 credits.

Part-Time Students

Enrollment as a part-time student is restricted to the following:

- PMU staff members who are pursuing a degree (approval of the employee's director is required).
- Students who need fewer than 12 credits to complete an undergraduate degree (approval of the academic advisor is required)
- Students who are granted permission by their dean.
- Students who are enrolled as auditing, non-degree or visiting students.
- Students who are working while enrolled.

Time Limit on Duration of Study

Students must complete all degree requirements within eight years of admission to PMU as an undergraduate student. The eight-year period includes leave time from the university. A student in good academic standing is allowed no more than two consecutive semesters of leave. A student who leaves the university for more than two consecutive semesters must submit a new application for admission to the Office of Admissions.

Grading System

The grade point average (GPA) is computed on a four-point scale. The following grading system is used at PMU:

| | |
|-----|-------------------|
| A+ | 4.00 grade points |
| A | 3.75 grade points |
| B+ | 3.50 grade points |
| B | 3.00 grade points |
| C+ | 2.50 grade points |
| C | 2.00 grade points |
| D+ | 1.50 grade points |
| D | 1.00 grade points |
| F | 0 grade points |
| WF* | 0 grade points |

*Administrative Withdrawal Fail

Grades not calculated in the grade point average are:

| | |
|----|-------------|
| I | Incomplete |
| IP | In Progress |

| | |
|----|---------------------------|
| AU | Audit |
| EX | Exempt; no credit |
| TR | Transfer; credit counted |
| W | Withdrawal |
| N | No grade |
| P | Pass; credit counted |
| AW | Administrative Withdrawal |

The student's GPA is calculated in the following manner:

The numerical value of each letter grade earned is multiplied by the number of credit hours the course is worth. This yields a figure known as "quality points." The sum of the student's quality points is divided by the total number of credit hours. The final figure is the GPA.

University Guidelines for Lateness and Attendance

Attendance and participation in all class, studio, workshop, and laboratory sessions are essential to the process of education at PMU. Students benefit from the lectures and discussions with their instructors and fellow students. Lateness or absence hinders progress for the individual and the class and affects the student's grade.

A regular student should attend all classes and laboratory sessions. A student may be discontinued from a course and denied entrance to the final examination if his or her attendance is less than 85% of classes and lab sessions assigned to each course during the semester. A student who is denied entrance to an examination due to excessive absences will be considered as having failed that course.

University guidelines for lateness and attendance are as follows:

- The specific application of the attendance guidelines is at the instructor's discretion. In general, however, the following guidelines apply:
- In the event a student misses 15% of the sessions in a class for any reason, the instructor may initiate withdrawal of the student from the course. If approved by the dean of the student's major, the withdrawal is implemented.
- If the withdrawal is initiated before the end of the tenth week of class, a grade of W is entered on the student's record. This grade is not calculated in the GPA.
- If the withdrawal is initiated after the tenth week of class, a grade of WF is entered on the student's record and is be calculated in the GPA.
- In order to encourage student attendance and to minimize withdrawals, instructors are to keep attendance records and to draw students' attention to attendance requirements.

- Instructors need not give substitute assignments or examinations to students who miss classes
- Three occasions of lateness count as one absence. Lateness is defined by the individual instructor.

Examinations

Final and common examination schedules are published by the Office of the Registrar in advance of examination week. If a student is scheduled for more than two examinations in one day or has a time conflict with common examinations, then the student must report to the Office of the Registrar by an announced deadline to make the necessary adjustments.

Academic Courses

Course Value

All courses are valued in credits. Normally, each credit represents 50 minutes of class instruction or 120 to 180 minutes of laboratory experience per week for the semester. A three semester credit hour course typically meets for three 50 minute sessions per week. A four semester credit hour course typically meets for three 50 minute sessions plus one 120-to-180 minute laboratory session.

Class Periods

Except for laboratory, workshop, and specialized design and studio courses, classes ordinarily meet three days per week in 50-minute sessions or two days per week in 75-minute sessions. The university operates on a five-day schedule from Saturday through Wednesday. The university is closed for the weekend on Thursday and Friday with the exception of certain Executive MBA courses, which are offered on Thursdays. The university also may be open on Thursdays during examination periods.

Independent reading or research courses, study projects, internships, and similar kinds of study opportunities meet according to the special arrangements of the college, department or faculty members concerned.

Courses are offered at the discretion of the department. Students should check with the respective academic departments for information on when courses will be offered.

PMU Course Numbering System

A common system for naming courses is applied throughout all academic programs at PMU.

Each course title begins with four letters that indicate the subject matter of the course.

A few examples are: CHEM for Chemistry, ACCT for Accounting, MEEN for Mechanical Engineering, COSC for Computer Science, and IDES for Interior Design.

The letters are followed by four numbers:

- The first digit indicates the earliest year a course may be taken. A number 1 course may be taken at any time.
- The second digit indicates credit hours. Most courses carry 3 hours of credit. Courses with laboratories typically carry 4 hours of credit. A small number of courses carry 1 or 2 hours of credit.
- The third digit indicates a course that is part of a group or family of courses. For example, the three general math courses are assigned the number 1 and the four calculus courses are assigned the number 2. More advanced math courses are assigned the number 3.
- The fourth digit serves only to differentiate courses from one another within a family. For example, the four calculus courses are numbered 1, 2, 3, and 4. The two economics courses are numbered 1 and 2.

Course Descriptions and Syllabi

Descriptions of courses currently offered in the university curriculum are listed by course number and college at the end of this catalog in the section titled PMU Course Offerings. Nonrecurring topics courses are published each semester in the schedule of classes.

Course syllabi are available from the individual course instructor, department, or program offices. They include course goals and objectives, content and topics, instructional material and resources, the method of evaluation, the meeting time and place, credit hours and prerequisites.

Course Prerequisites

Courses above the introductory level require a minimum background of knowledge, as indicated by prerequisite courses cited in individual course descriptions. Titles and numbers listed refer to courses offered at PMU.

Equivalent courses satisfactorily completed at other institutions may also meet prerequisite requirements by transfer credit. Students should consult the head of the appropriate academic unit for more information. Students are responsible for entering the class with the required competence.

In general, courses should be taken in an order of increasing difficulty. Credit may not be granted for a lower level course once a more advanced course has been completed. Courses in which a grade of D or F was received do not satisfy prerequisite requirements. Specific details for different degree programs are available in the deans' offices.

Meeting Degree Requirements

Performance Expectations

Each college within the university requires minimum standards of academic performance from its students. Typically, these requirements include maintaining minimum grade point averages (GPA) for various categories of courses, including:

- the PMU Core Curriculum
- courses from the Core Curriculum that specific majors require beyond the minimum
- courses from the college that are common to all majors within the college
- courses within the major academic discipline

The required GPA for each category is established by the individual college.

In order to graduate, all students at PMU are required to maintain an overall GPA of 2.0.

Individual colleges within the university may also require national or international standardized tests for graduation. Students should inquire of the dean's office regarding such requirements.

Repeating Courses

A student who receives a D (1.0) or F (0.0) in any course is required to repeat the course and to achieve the required grade point average for that category of course. In the case of an elective, the major department may allow the student to select another elective.

Students may repeat a course one time, with additional repeats allowed at the discretion of the faculty. However, no more than 10 repeated courses are allowed over the student's career at the PMU.

After the first repeat, prior grades count toward the student's GPA. For example: A student who receives a D followed by an A will have the D erased and replaced with the A on the transcript. A student who receives an F followed by a D followed by an A will have the F erased, and both the D and the A will be averaged into the GPA.

Students repeating courses are required to participate in tutoring and remediation programs offered by the college faculty and the Learning Resources Center.

Incomplete Grades and Make-Up Examinations

The work for a course must be complete on the day the semester ends. No incomplete grade (I) is given as a final grade in any course unless there is a compelling medical or other such emergency certified in writing by a medical or other professional. In the case of unexcused incomplete work, a grade of F is given for any missing work (such as papers or quizzes), and the total course grade is computed accordingly.

A student is allowed to make up incomplete work only in exceptional cases and emergencies (as noted above). In these cases, the student must receive written approval from the instructor, chair, and dean. The incomplete work must be made up before the end of the next semester. Beyond this period, a grade of I granted to the student reverts into a grade of F.

It is the responsibility of the student to find out from his or her professor the specific dates by which requirements must be fulfilled. The instructor's deadline for submitting incomplete grades to the Registrar is 72 hours after the date of any make-up examination.

Academic Probation

Placement on Probation

Students will be placed on academic probation at the end of any semester in which their cumulative GPA is below 2.0. Students on probation have one semester in which to achieve a non-cumulative GPA of 2.0 or higher. If they do so in their subsequent semester, they are removed from academic probation. Failure to do so results in dismissal from the university.

Removal of Probation and Dismissal

Probation is removed at the end of any semester in which the student attains a cumulative GPA of 2.0. A student may be dismissed if he or she fails to remove his/her probation by the end of the second semester on probation. Actions involving academic probation and dismissal are entered on the student's permanent record.

Reinstatement

Students who left PMU not in good standing and have been out of the university for no more than two semesters may submit a written request for reinstatement to the Office of the Registrar. The request should outline activities since leaving PMU that contribute to the student's academic development. Courses taken at another institution during this interim period are not transferable.

Students who have been out of the university for more than two semesters must submit a new application for admission to the Office of Admissions. Dismissed students may also be considered for reinstatement.

Study at another Institution

An enrolled student who wishes to take courses at another university for transfer credit to PMU must receive approval from his or her dean. The decision to credit the course taken by the student in another institution is based on the careful analysis of the course content and the student's performance in the course.

It is recommended that students receive approval before taking a course. In unusual circumstances, however, students are allowed to petition for credit after they have taken a course at another institution.

The host institution must be recognized by the Ministry of Education of its country and must be accredited. It must provide learning experiences similar to those offered by PMU.

Academic Support and Assistance

Academic Advising

Academic advising is an essential element of the educational process. PMU requires advisor-student conferences at least once per semester. Students are assigned academic advisors who help them in selecting their course of study and in planning their schedules. Their advisors also approve their schedules each semester. However, students are responsible for selecting their courses, meeting course prerequisites and adhering to university policies and procedures. The advisor assists the student in obtaining a well-balanced education and in interpreting university policies and procedures. Students may also consult faculty, department or program chairs, program coordinators, and deans.

Learning Enrichment Services

In addition to information services and resources traditionally associated with a campus library, the Learning Resources Center provides learning enrichment services to ensure the student success in the university's learning-centered approach to education.

- Academic support services for both males and females.
- Collaboration among professional staff, faculty, and students to deliver tutoring and other academic support services.
- Non-credit classes that focus on mastery of learning skills.
- Specialized support centers in mathematics, reading, and writing.

- Peer tutoring to build learning skills, leadership skills, and teamwork.
- A diagnostic program to identify students' needs for developing learning skills and to propose appropriate assistance.

Complete information for the PMU community about LRC services and resources is available on the Web site (www.pmu.edu.sa), in print publications, and on electronic bulletin boards located in the building.

Student Records

Student Responsibility

Students are responsible for their behavior, academic or otherwise, at PMU. The university expects students to behave as mature members of the academic community and adhere to the highest standards of personal and academic integrity.

Students should keep their own records of all transactions with the university.

It is also recommended that students keep copies of all materials submitted in fulfillment of course work.

Permanent Record

A permanent record, reflecting academic achievement, is maintained in the Office of the Registrar for each student who registers at the university.

Students' Privacy Rights

Students have the right to:

- Inspect and review information contained in their educational records. The university is not required to provide (or allow the making of) copies of these documents.
- Request changes or updates to their personal data.
- Consent to disclosure, within the extent of KSA laws, personally identifiable information from education records.

Documentation

All transcripts and other documents from other institutions are the property of PMU and, as such, are under the control of the Office of the Registrar. The university is not required to provide (or allow the making of) copies of these documents. Transcripts submitted to PMU for admission or credit transfer become the property of PMU and cannot be returned to the student or forwarded to other institutions.

Transcripts

Students may obtain transcripts of their academic records from the Office of the Registrar. Transcripts will only be released with a signed request from the student concerned. The university will issue only complete transcripts, not parts of the student record. The university will not make copies of transcripts on file from other colleges or universities.

Names on Diplomas and Degrees

The names of PMU students on diplomas and degrees will be spelled in English exactly as they appear on the student's passport or identity card. If a name on a passport or an identity card does not appear in English, then the spelling of the name will be printed according to the personal preference of the student concerned.

Enforcement of Academic Regulations

Student Petitions and Appeals

Petitions

Students may petition the Office of the Vice Rector for Academic Affairs for exceptions to academic policies of the university. Petitions are received by the Vice Rector's office through the Office of the Registrar.

Students who think they want to petition the Vice Rector are advised to consult first with the Registrar to determine whether a petition is actually required in their case or whether the matter can be handled through those offices.

The petition requires the Registrar's signature in order for it to be transmitted to the Vice Rector for Academic Affairs. It should be noted, however, that the Registrar's signature does not necessarily mean that the Registrar recommends approval by the Vice rector, but merely that the Registrar has been consulted in the petitioning process. The Registrar is free to comment more fully on the matter, either on the petition form or in a separate letter, and may wish to add attachments. Other signatures may be appropriate in certain types of petitions, e.g., the university physician, a member of the Counseling Services staff, a course instructor, etc.

Appeal of a Grade

Students are entitled to objective, professional evaluation of their academic work and to fair, equitable treatment in the course of their academic relationships with members of the faculty. These criteria are observed by the members of PMU faculty as a part of their professional responsibilities. Misunderstandings have traditionally been resolved, informally, in discussions between students and faculty members, and this manner of resolving problems is deemed appropriate in this academic community.

Should students believe they have a legitimate grievance that has not been reconciled by such private conversation, they may pursue the matter by consulting with the department chair or associate chair and/or dean of the college in which the course is offered. Each college may have its own internal method of dealing with these matters.

After having exhausted all these means to resolve the matter informally and having found the grievance still unreconciled and still believing the grievance to be legitimate, the student may file a petition with the Vice Rector for Academic Affairs, setting forth a full, fair account of the incident or circumstances giving rise to the grievance.

Alternately, if, in the judgment of the dean of the college and the Vice Rector for Academic Affairs, the grievance is of such gravity or its resolution would have such impact on the welfare of students generally, or on the conduct of professional responsibilities in the university as to require even more formal safeguards for the aggrieved student and faculty member involved, the Vice Rector for Academic Affairs shall prescribe an appropriate procedure consonant with the university's mission.

Appeal of Other Academic- Related Issues

In the event that a student wishes to discuss an issue pertaining to a course, instructor or other academic-related issues, he or she may direct his/her concern to the chair of the department and/or dean of the college/school. If the issue continues to exist, the student may choose to file a petition with the Office of the Vice Rector for Academic Affairs. Petition forms are available from the Office of the Registrar.

Student Academic Honesty and Integrity

Statement of Principle

PMU expects all students to engage in all academic pursuits in a manner than is above reproach and to maintain complete academic honesty and integrity in their academic experiences both in and out of the classroom. The university may initiate disciplinary proceedings against a student accused of any form of academic dishonesty, including but not limited to cheating on an examination or other academic work, plagiarism, collusion, and/or the abuse of resource materials.

Definitions

“Cheating” includes, but is not limited to:

1. Copying from another student’s test paper, a laboratory report, other report, computer files, data listings, and/or programs.
2. Using, during an examination, materials not authorized by the person giving the test.
3. Using, during an examination and without authorization, a calculator programmed with formulas or course information that the student is expected to know.
4. Collaborating, without authorization, with another person or persons during an examination or in preparing academic work.
5. Knowingly, and without authorization, using, buying, selling, stealing, transporting, soliciting, copying, or possessing, in whole or in part, the contents of an unadministered test.
6. Substituting for another student, permitting any other student, or otherwise assisting any other person to substitute for oneself or for another student in the taking of an examination or in the preparation of academic work to be submitted for academic credit.
7. Bribing another person to obtain an unadministered test or information about an unadministered test.
8. Purchasing, or otherwise acquiring and submitting as one’s own work, any research paper or other writing assignment prepared by an individual or firm. (This section does not apply to the typing of the rough and/or final versions of an assignment by a professional typist.)
9. Changing an answer on a test that has already been graded and then requesting a correction from the instructor.

10. Participating in any activity or action that affords an unfair academic advantage to the student.
11. Using all or part of any work developed or produced for credit in one course and submitting it for credit in another course without the instructor's approval.
12. Participating in acts which limit the ability of another student to perform to the best of the student's ability in a course.
13. Assisting another student to be academically dishonest.

“Plagiarism” means the appropriation and the unacknowledged incorporation of another's work or idea into one's own work offered for academic credit. Plagiarism includes, but is not limit to:

1. Failing to properly acknowledge a statement, idea, or statistic made by another individual in the body of the work,
2. Taking a whole section of someone else's work and placing it in the body of your own work without properly acknowledging the contributor,
3. Representing someone else's entire work as that of his or her own.

“Collusion” means the unauthorized collaboration with another in preparing work offered for academic credit.

“Abuse of resource materials” means the deliberate mutilation, destruction, concealment, theft or alteration of materials (including library materials) provided to assist students in the mastery of course content.

“Academic work” means the preparation of an essay, dissertation, thesis, report, problem, assignment, or other project that the student submits as a course requirement for a grade.

Disciplinary Procedures for Academic Dishonesty Cases

All academic dishonesty cases must first be considered and reviewed by the faculty member. If the faculty member believes that an academic penalty is necessary, he/she shall assign the penalty. The faculty member shall also notify the student of their right to appeal the decision to the department dean and, if needed, to the Vice Rector for Academic Affairs. At each step in the process, the student shall be entitled to written notice of the offense and/or of the administrative decision, an opportunity to respond to the charges, and the right to an impartial disposition as to the merits of the case. After the completion of the academic process, the academic officer making the final disposition of the case may refer the matter to the Vice Rector for Student Affairs for any additional disciplinary action that may be appropriate, as in the case of flagrant or repeated violations.

In the case of flagrant or repeated violations, the Vice Rector for Student Affairs may take additional disciplinary action. The procedures for handling cases of academic dishonesty by the Vice Rector for Student Affairs shall be the same as those established for handling other campus disciplinary cases.

Grievance and Appeal Procedures for Students

1. It is the policy of PMU to receive, process, and resolve student grievances in a fair and prompt manner and to assure that students receive equity and justice in their association with the University.
2. This grievance policy and procedures are established for students for use in cases not otherwise covered by the policies of the University. Applicants for admission are also covered by these grievance procedures.
3. Grievances shall consist of matters of disagreement or dissatisfaction arising out of circumstances wherein the student believes that there has been an infraction, breach, or misinterpretation of a University policy, rule, or regulation. Only one subject matter may be covered in any one grievance.
4. Students should first attempt to resolve all disputes with the person who made the initial decision. All grievances not resolved at the appropriate lower level shall be presented in writing within three class days to the Director of Campus Life and shall contain a clear and concise statement of the grievance by indicating the applicable policy, rule, or regulation that is alleged to have been violated, the date the incident took place, the person or persons involved, the issue involved, and the relief sought.

5. The Director of Campus Life will investigate the grievance and will notify both parties in writing of the decision within five days of the conclusion of the investigation.
6. Grievances not satisfactorily resolved with the Director of Campus Life may be appealed to the Vice Rector for Student Affairs. Such appeals must be submitted in writing within ten class days of the decision rendered by the Director of Campus Life. The Vice Rector for Student Affairs will review all of the evidence from the initial investigation and may conduct additional interviews as needed. A written decision will be made by the Vice Rector for Student Affairs within five days following the final meeting with the parties involved and a copy of the decision will be sent to both parties and to the Director of Campus Life.
7. Grievances not satisfactorily resolved with the Vice Rector for Student Affairs may be appealed to the Rector of the University. This appeal must be made within ten days following the decision by the Vice Rector for Student Affairs. The Rector will review all of the information from previous investigations and may conduct additional interviews as needed. The decision by the Rector of the University is final and binding on all parties. A copy of the written decision will be provided to all parties involved.
8. Failure of a student to process his or her grievance to the next step within the specified time limit shall constitute an abandonment of the grievance.
9. Failure of University personnel to give an answer within the prescribed time limit authorizes the student to submit his or her grievance to the next step.
10. There can be an extension of the time limits in any step, if mutually agreeable.
11. No student shall be disciplined, penalized, or otherwise prejudiced for exercising the rights provided for in this grievance procedure.

Grade Grievance and Appeal Procedures for Students

1. The assignment of a grade in a course is the responsibility of the faculty member and is based on the professional judgment of the faculty member. Except for issues of computation or discrimination, the faculty member's grade determination is final.
2. Students having a grievance concerning a grade in a course should make every effort to resolve the issue with the faculty member who assigned the grade. Faculty members should attend to the concerns of the student and explain the basis for the grade assigned.
3. Should a student be unable to resolve the grievance with the faculty member, the student may appeal to the dean of the appropriate academic college. If the faculty member in question is the dean of the college, the

student should present the grievance to the Vice Rector for Academic Affairs. The student must present a written statement and provide compelling evidence (examinations, papers, etc.) that demonstrate why the grade should be changed. The written grievance must be submitted no later than (30) days from the conclusion of the semester in which the incident occurred.

Graduation

Graduation

Normally, the university confers degrees at the end of the spring semester. Candidates for degrees file an "Application for Graduation" form in the Office of the Registrar during the registration period of the last expected term of study. Only after an application for graduation has been filed can the Office of the Registrar begin processing the necessary information for final certification for graduation. Students who fail to complete all degree requirements by the end of the term for which they apply to graduate need not reapply for graduation. Their previous application will be automatically forwarded to the following semester.

Participation in the Commencement Exercises

Only students who have successfully completed degree requirements and have no "holds" on their records by the end of the term for which they have applied to graduate are certified for conferral of a degree. In witness of the degree conferred, the permanent record of the graduate is appropriately noted with a statement and date of graduation before his or her diploma is released.

Only degree candidates whose academic records indicate that they satisfy degree requirements and have no financial transcript holds are permitted to participate in commencement ceremonies.

University Honors and Awards

Dean's List

The Office of the Registrar issues a dean's list of honor students at the end of each semester. To be placed on the dean's list, a student must:

- Have registered and completed a minimum of 15 hours in the semester
- Have at least a semester 3.5 GPA
- Be in good academic standing
- Rank in the top ten percent of students in his or her college
- Have no failing grades in any of his/her courses during that semester
- Have no incomplete grades
- Have no disciplinary action against him/her

Graduation Honors

PMU grants Latin honors at graduation. To be eligible for graduation honors, students must have completed at least 60 credits required for their degree in residence at the PMU and have achieved the requisite GPA. These are Summa Cum Laude: 3.90 GPA; Magna Cum Laude: 3.70-3.89 GPA; Cum Laude: 3.50-3.69 GPA. Latin honors are listed in the commencement program and on the student's diploma and permanent record.

PREPARATORY PROGRAM AND CORE CURRICULUM

OVERVIEW OF THE PREPARATORY PROGRAM

To ensure that the students the university admits will be prepared to succeed in PMU's challenging academic environment, a non-credit Preparatory Program is provided to assist entering students in developing their skills in English, mathematics, and learning and study methods.

The Preparatory Program provides students with non-credit instruction in learning skills, mathematics, and a level of proficiency in English that will enable students to succeed in a university where all courses (with the exception of Arabic language and Islamic Studies) will be taught in English. The time required to attain this level of English abilities will vary depending on the student's level of achievement upon entering the program. Courses are taught in half-semester blocks. It is expected that most students will attain the required level in two full semesters, though some may require additional instruction.

Upon successful completion of the Preparatory Program, students will be ready for acceptance into one of the three colleges of PMU.

PREPARATORY PROGRAM COURSE DESCRIPTIONS

Communication - PRPC

PRPC 0011: Low-Beginning Communication Skills (0,0) PRPC 0011 is a foundation course for low-proficiency EFL learners. It introduces students to basic reading skills, vocabulary for basic communication, speaking routines and patterns, and listening for comprehension and response. This course (Level 1) introduces PMU students to the student-centered, highly active and interactive EFL classroom environment, and to the expectations in that environment. **Prerequisite:** This course has no prerequisite. Assignment to course level follows placement tests at the beginning of the Preparatory Program.

PRPC 0021: High-Beginning Communication Skills (0,0) PRPC 0021 consolidates basic reading, vocabulary acquisition, speaking, and listening skills

learned at the low-beginning level. The course (Level 2) further introduces students to the reading skills and vocabulary-acquisition strategies and approaches that will characterize all EFL classes at the PMU. Emphasis on general speaking, active listening, and pronunciation skills continue in an integrated approach using more complex material. The classroom is student-centered and interactive. **Prerequisite:** PRPC 0011 (Level 1), or assignment to Level 2 following placement tests at the beginning of the Preparatory Program.

PRPC 0031: Low-Intermediate Communication Skills (0,0) PRPC 0031 moves students beyond passive reading to a more active, analytical approach to the material. Students begin structured study of high-frequency academic words from the Academic Word List. Listening activities develop students' facility in understanding material organized according to major patterns of thought and speech. All previous reading, vocabulary, speaking, and listening skills are reviewed and further developed using higher-level materials and an integrated-skills approach. **Prerequisite:** PRPC 0021 (Level 2), or assignment to Level 3 following placement tests at the beginning of the Preparatory Program.

PRPC 0041: High-Intermediate Communication Skills (0,0) In PRPC 0041 reading, vocabulary, speaking, and listening activities continue to become more analytical and academic in focus, preparing students to meet university-level expectations. Reading skills training continues, as reading materials become longer and more complex. Vocabulary acquisition skills are emphasized, and another section of the Academic Word List is added for study. Academic listening skills become a primary emphasis, with training in lecture-listening and note taking strategies. Students learn and practice academic speaking formats. **Prerequisite:** PRPC 0031 (Level 3), or assignment to Level 4 following placement tests at the beginning of the Preparatory Program.

PRPC 0051: Low-Advanced Communication Skills (0,0) PRPC 0051 begins to bridge the gap between EFL instruction and the use of English in realistic academic activities. Reading skills training continues with longer, authentic material. Word-attack skills and additional words from the Academic Word List prepare students for university-level reading. Longer, more complex authentic listening activities are part of this course. The academic emphasis of the class does not, however, diminish the communicative, interactive, and student-centered nature of the classroom. **Prerequisite:** PRPC 0041 (Level 4), or assignment to Level 5 following placement tests at the beginning of the Preparatory Program.

PRPC 0061: High-Advanced Communication Skills (0,0) PRPC 0061 reviews and consolidates all the reading skills and vocabulary word-attack skills students learned at previous levels, using a variety of university-level material. Readings are longer and the final words from the Academic Word List are studied. Academic listening tasks are long, complex, and realistic to prepare students for a successful transition into university classes. The classroom remains student-centered, with interactive, integrated-skills activities. **Prerequisite:** PRPC 0051 (Level 5), or assignment to Level 6 following placement tests at the beginning of the Preparatory

Program.

Writing - PRPW

PRPW 0011: Low-Beginning Writing Skills (0,0) This low-beginning Writing Skills course introduces the student to the basics of English grammar and composition with the goal of elementary proficiency in speaking and writing. This is achieved through extensive pair and group activities in the classroom as well as directed composition, spelling, and mechanics at the basic paragraph level.

Prerequisite: This course has no prerequisite. Assignment to course level follows placement tests at the beginning of the Preparatory Program.

PRPW 0021: High-Beginning Writing Skills (0,0) This high-beginning writing course provides a strong foundation in English grammar with acquisition of present and past verb tenses in simple and progressive forms, an introduction to present perfect, basic modals, and comparison, as well as other high-beginning structures. In this Level 2 course, students learn to apply the grammar at the high-beginning level in writing and speaking, focusing on monitoring for accurate use of the language. Basic paragraph-writing skills are formed through an introduction to the writing process and the incorporation of organization, simple sentence structure and mechanics. **Prerequisite:** PRPW 0011 (Level 1), or assignment to Level 2 following placement tests at the beginning of the Preparatory Program.

PRPW 0031: Low-Intermediate Writing Skills (0,0) This low-intermediate writing course introduces or reviews major grammatical concepts. In addition, the course provides an introduction to the fundamentals of academic writing at the intermediate level, focusing on the mastery of paragraph organization and development, three-paragraph essays of classification, cause and effect, comparison and contrast, an introduction to the five-paragraph essay, and the use of transitions. In this Level 3 course, students refine their knowledge of English writing mechanics and conventions through word processing, and apply their developing knowledge of grammar and sentence structure to their writing. Beginning research and documentation skills are introduced. **Prerequisite:** PRPW 0021 (Level 2), or assignment to Level 3 following placement tests at the beginning of the Preparatory Program.

PRPW 0041: High-Intermediate Writing Skills (0,0) This high-intermediate writing course focuses on academic writing, making the transition to the development of unified, coherent essays. In addition, the final writing project is a documented essay, the result of training in basic library and Internet research methods and the fundamentals of academic documentation. In this Level 4 course, major topics in grammar are reviewed and complex sentence structure is covered, with students expected to begin writing mature, sophisticated sentences.

Prerequisite: Successful completion of PRPW 0031 (Level 3), or assignment to Level 4 following placement tests at the beginning of the Preparatory Program.

PRPW 0051: Low-Advanced Writing Skills (0,0) This low-advanced writing course focuses on writing essays with clarity of focus, cohesion, and development

of main and supporting ideas. Other academic writing skills are addressed in this Level 5 course, including instruction and definition. Students refine their understanding of the writing process. The course also features a strong focus on the research process, particularly on synthesizing information and citing sources. This process culminates in a research paper at the low-advanced level. Students refine their control of complex sentence structure in both oral and written contexts and learn to use a variety of structures in their writing. **Prerequisite:** PRPW 0041 (Level 4), or assignment to Level 5 following placement tests at the beginning of the Preparatory Program.

PRPW 0061: High-Advanced Writing Skills (0,0) This high-advanced writing skills course focuses on increasing fluency and sophistication of essay writing at the high-advanced level, and the production of a research paper. This Level 6 course emphasizes summarizing, synthesizing, and argumentation, and addresses other academic writing skills. A review of advanced grammatical structures and their application to academic writing is included. **Prerequisite:** PRPW 0051 (Level 5), or assignment to Level 6 following placement tests at the beginning of the Preparatory Program.

Mathematics - PRPM

PRPM 0011: Introductory Algebra (0,0) This course is an introduction to mathematical thinking in the context of the real number system and functional relationships. To assist in solving problems, the course incorporates the use of technology, specifically graphing calculators and Excel spreadsheets. **Prerequisite:** Satisfactory completion of high school algebra.

PRPM 0012: Intermediate Algebra (0,0) A continuation of PRPM 0011, this course focuses on mathematical thinking and data analysis applied to linear, quadratic, rational, logarithmic, and exponential functions. The course incorporates the use of technology to help solve problems, specifically through the use of graphing calculators and Excel spreadsheets. **Prerequisite:** PRPM 0011: Introductory Algebra.

PRPM 0022: Pre-Calculus (0,0) This course provides an overview of pre-calculus mathematics with an emphasis on elementary functions and their applications. The course incorporates the use of technology to help solve problems, specifically through the use of graphing calculators and Excel spreadsheets. **Prerequisite:** PRPM 0011: Introductory Algebra.

Study Skills and Learning Strategies - PRPL

PRPL 0011: Theories and Applications of Learning I (0,0) This course focuses on models of academic success founded on an understanding of learning theories from the fields of education and psychology and the application of those theories throughout the semester. Through a combination of guided application of learning strategies, individual academic advising, and instruction in and daily use of technology, students will learn the skills necessary to achieve academic success.

Prerequisite: Students must have achieved English Level 3 proficiency or higher, either by successful completion of Level 2 or by class assignment following placement tests at the beginning of the Preparatory Program. Students in English Levels 1 or 2 will be placed in a special section of PRPL 0011 that will cover the same skills and subject material using lower-level English skills and limited use of Arabic.

PRPL 0012: Theories and Applications of Learning II (0,0) This course builds on the learning strategies, computer literacy skills, and self-management skills that students have gained in PRPL 0011: Theories and Applications of Learning I. The foundations of critical thinking will be introduced as well as the development of team communication skills, global awareness, and electronic resource skills. Through continued guided application of learning strategies, individual academic advising, computer software applications, and discussion of career and professional development issues, students will continue to build on the skills necessary to achieve academic success. **Prerequisite:** Students must have earned at least a grade of “C” or better in PRPL 0011. They must have achieved English Level 4 proficiency or higher, either by successful completion of Level 3 or by class assignment following placement tests at the beginning of the Preparatory Program.

OVERVIEW OF THE UNDERGRADUATE CORE CURRICULUM

The Undergraduate Core Curriculum contains three components.

The University Core Curriculum contains courses required of all PMU students. These courses are designed to develop the six core competencies that distinguish PMU graduates.

Group I (18 semester hours required.)

COMM 1311: Written Communication
COMM 1312: Writing and Research
COMM 2311: Oral Communication
COMM 2312: Technical and Professional Communication
UNIV 1211: Professional Development and Competencies
UNIV 1212: Critical Thinking and Problem Solving
UNIV 1213: Leadership and Teamwork

Group II (14 Semester hours required)

Arabic Language*
Islamic Studies*
(*One two-credit course each semester for 7 semesters)

Group III (2 semester hours required)

Physical Education*
(*Physical Education is typically taken during the Freshman year.)

The College Core Curriculum prescribes academic subjects which PMU students are required to master. Each college of the university (Engineering, including Interior Design; Information Technology; and Business Administration) determines the specific College Core courses that will be required of its students. All students, however, are required to successfully complete courses in each of three College Core fields: natural and physical sciences, mathematics, and social and behavioral sciences.

Mathematics (6 semester hours [two 3-hour courses] must be taken. Colleges designate specific required courses, if any)

MATH 1311: Finite Mathematics for Students of Business
MATH 1312: Calculus for Students of Business
MATH 1313: Statistical Methods
MATH 1321: Pre-Calculus Mathematics
MATH 1422: Calculus I
MATH 1423: Calculus II

MATH 1324: Calculus III
MATH 2331: Linear Algebra
MATH 2332: Ordinary Differential Equations

Natural and Physical Sciences (8 semester hours [two 4-hour courses] must be taken. Colleges designate specific required courses, if any.)

BIOL 1411: Introductory Biology
CHEM 1411: Introductory Chemistry
CHEM 1421: Chemistry for Engineers I
CHEM 1422: Chemistry for Engineers II
GEOL 1411: Introductory Physical Geology
PHYS 1411: Introductory Physics
PHYS 1421: Physics for Engineers I
PHYS 1422: Physics for Engineers II

Social and Behavioral Sciences (6 semester hours [two 3-hour courses] must be taken. Colleges designate specific required courses, if any.)

ECON 1311: Introduction to Macroeconomics
ECON 1312: Introduction to Microeconomics
GEGR 1311: World Regional Geography
HIST 1311: World Civilizations, 1600 - Present
PSYC 1311: Introduction to Psychology

The Assessment Capstone Series consists of three courses required of all PMU students. The first two courses are designed to increase the success of the third and final capstone course taken during the student's senior year. The Assessment Capstone Series will measure the student's success in achieving the

six PMU learning outcomes.

- ASSE 2111: Learning Outcome Assessment I
- ASSE 3211: Learning Outcome Assessment II
- ASSE 4311: Learning Outcome Assessment III

CORE CURRICULUM COURSE DESCRIPTIONS

Outcome Assessment - ASSE

ASSE 2111: Learning Outcome Assessment I (1,0) This course will be taken by students during their first semester in the second year of the undergraduate program and will orient them to learning-outcome expectations, the development of a learning portfolio, and the assessment process. **Prerequisite:** None

ASSE 3211: Learning Outcome Assessment II (2,0) This course will be taken by students during their first semester in the third year of the undergraduate program and will orient them to learning-outcome expectations, the development of a learning portfolio, and the assessment process.. **Prerequisite:** ASSE 2111

ASSE 4311: Learning Outcome Assessment III (3,0) This course will be taken by students either first or second semester of the fourth year of the undergraduate program. The semester during which the course is taken will be determined by the student's major field of study. The course will orient students to learning outcome expectations, the development of a learning portfolio, and the assessment process. The course requires students to meet all the university learning objectives. **Prerequisite:** ASSE 3211

Biology - BIOL

BIOL 1411: Introductory Biology (3,1) This course will provide students with a foundation in basic biological principles. Students will gain familiarity with the biological world from both a taxonomic perspective (plant, animal, microbe) and process-based perspective (biochemistry, cell biology, physiology, ecology, behavior). Additionally, students will learn to integrate biological material into the broader world around them, and to develop critical thinking and problem solving skills involving quantitative data from the natural sciences. This course is in the format of a three-credit lecture session and a mandatory, separately scheduled one-credit laboratory. **Prerequisite:** None

Chemistry – CHEM

CHEM 1411: Introductory Chemistry (3,1) This course will provide students with a foundation in basic chemical principles. Students will gain familiarity with chemical equations and reactions, and they will be given the tools necessary to solve chemical problems that they might encounter on a daily basis. An important component will be an understanding of the impact of chemistry on all aspects of humans and human civilization. Students will learn to integrate chemical understanding in the broader world around them, and develop critical thinking and problem solving skills involving quantitative data from the natural sciences. This

course is in the format of a three-credit lecture session and a mandatory, separately scheduled, one-credit laboratory that accompanies it. **Prerequisite:** None

CHEM 1421: Chemistry for Engineers I (3,1) The course objective of CHEM 1421 is to create a substantial base for a two-semester chemistry sequence to provide the additional chemistry required by engineering students prior to specialized courses in chemical engineering applications. This course is not to be taken by non-engineering students. The approach, like that of CHEM 1422, will be largely conceptual leading to an understanding of chemistry and chemical processes. Students in this course will gain familiarity with the chemical/atomic structure of ions, molecules and atoms and how they react. Emphasis will be on a quantitative approach involving chemical reactions and their control. This course is in the format of a three-credit lecture session and a mandatory, separately scheduled, one-credit laboratory. **Prerequisite:** Pre-Calculus PRPM 0022

CHEM 1422: Chemistry for Engineers II (3,1) The objective of CHEM 1422 is to build upon the base provided in the prerequisite CHEM 1421, and to provide the additional chemistry required by engineering students prior to specialized courses in chemical engineering applications. This course is not to be taken by non-engineering students. The approach, like that of CHEM 1421, will be largely conceptual leading to an understanding of chemistry and chemical processes. Students in this course will gain familiarity with the physical chemistry of liquids and solids, the nature of equilibrium, acids and bases, and thermodynamics and electrochemistry. This course is in the format of a three-credit lecture session and a mandatory, separately scheduled one-credit laboratory. **Prerequisites:** MATH 1422: Calculus I, CHEM 1421: Chemistry for Engineers I

Communication - COMM

COMM 1311: Written Communication (3,0) This course introduces students to writing as process and product. Students will learn invention, selection, arrangement, presentation, and revision as parts of the writing process leading to compositions that are clear, concise, and correct. The course will also teach students to identify and correct errors in written communication, with an emphasis on grammar, mechanics, and proper manuscript form. **Prerequisite:** None

COMM 1312: Writing and Research (3,0) This course continues the work of assisting students to develop, organize, and express insights, observations, and ideas effectively, but in the context of planning and composing a formal research paper. In the course of doing research for a 3,000-5,000 word paper, students will learn to use computer databases and online sources as well as library materials. Students will also significantly sharpen their analytical reading, critical thinking, and writing skills. **Prerequisite:** COMM 1311: Written Communication

COMM 2311: Oral Communication (3,0) This course assists students in the development and presentation of clear, cogent, and compelling oral presentations. Students will learn to evaluate ideas and evidence, to think critically, and to communicate effectively in group situations. Several oral presentations will be

given throughout the semester. **Prerequisite:** None

COMM 2312: Technical and Professional Communication (3,0) This course builds on the writing and communication skills developed in COMM 1311, 1312, and 2311. Students will learn a variety of technical and professional writing techniques, will draft a professional resume, business letters, technical papers and memoranda, and will work in teams using technology to produce reports and presentations. **Prerequisites:** COMM 1311: Written Communication, COMM 1312: Writing and Research, COMM 2311: Oral Communication

Economics – ECON

ECON 1311: Introduction to Macroeconomics (3,0) This course provides students with a foundation on resources and goals of the economy, national income, employment, money and banking, fiscal and monetary policy, contemporary problems, economic growth, and international economics. **Prerequisite:** None.

ECON 1312: Introduction to Microeconomics (3,0) This course provides students with a foundation on markets, resource allocation, consumer and producer behavior, production, costs, market structure, and the role of government in a market economy. **Prerequisite:** None.

Geography – GEGR

GEGR 1311: World Regional Geography (3,0) This course is primarily a survey of physical and cultural patterns of the world. It presents a broad overview of geographical features such as landforms, language of maps, graphs, languages, climates, and other aspects of each particular world region. **Prerequisite:** None

Geology – GEOL

GEOL 1411: Introductory Physical Geology (3,1) This course provides students with a foundation in basic geological principles. Students will gain familiarity with the geological world, including the earth's composition and geologic processes. An important component will be an understanding of the interactions between humans, human civilization, and the geologic process. Additionally, students will learn about geologic hazards and how they can be overcome or contained. Students will learn to integrate geological material into the broader world around them, and develop critical thinking and problem solving skills involving quantitative data from the natural sciences. This course is in the format of a three-credit lecture session and a mandatory, separately scheduled one-credit laboratory. **Prerequisite:** None

History – HIST

HIST 1311: World Civilizations, 1600 – Present (3,0) This course is a survey of the development of the major civilizations of the world from 1600 to the present. HIST 1311 stresses the dynamism and expansion of the West, the interpenetration of cultures in the modern era, and the resurgence of non-Western independence in the 20th century. **Prerequisite:** None

Psychology - PSYC

PSYC 1311: Introduction to Psychology (3,0) This course is an introduction to fundamentals of psychology including an overview of the concepts and methods of such areas as perception, learning, motivation, memory, development, personality, abnormal, and social psychology. **Prerequisite:** None

Mathematics – MATH

MATH 1311: Finite Mathematics for Students of Business (3,0) This course covers topics from the mathematics of finance that should be familiar to all students seeking careers in the business world. These include mathematics related to supply, demand and cost analysis; interest, annuity and investments; probability and decision making; and Markov processes. Students should acquire the necessary mathematical basis for further study in economics and finance. **Prerequisite:** PRPM 0012 Intermediate Algebra

MATH 1312: Calculus for Students of Business (3,0) This course covers topics from calculus that should be particularly useful for students studying economics and finance. Such topics include regression analysis, mathematical modeling, rate of change, and marginal analysis from differential calculus. Topics covered from integral calculus include optimization and area calculations as they apply to average value, value of continuous income flows, coefficients of inequity, and consumer and producer surplus. Students should acquire the necessary mathematical knowledge and skills for further study in economics and finance. **Prerequisite:** MATH 1311: Finite Mathematics for Students of Business.

MATH 1313: Statistical Methods (3,0) This course covers statistical models and methods of analyzing data. These include estimation, tests of significance, analysis of variance, linear regression, and correlation. Students will acquire the necessary statistical basis for using available information to make rational decisions. **Prerequisite:** None

MATH 1321: Pre-Calculus Mathematics (3,0) This course covers those topics needed for successful completion of Calculus I. Such topics include modeling with functions: linear, quadratic, exponential, and logarithmic. In addition, trigonometric functions with the related laws and identities are covered in some detail. Students should acquire the necessary mathematical knowledge and skills for further studies in calculus and engineering. **Prerequisite:** Pre-Calculus PRPM 0022

MATH 1422: Calculus I (3,1) This course covers topics from differential calculus with an introduction to integration. Topics include limits of functions, concept of differentiation of one variable with rules for differentiation, and applications of derivatives involving related rates, optimization, and curve sketching. Integration is introduced and the Fundamental Theorem of Calculus is covered. Students should acquire the necessary mathematical knowledge and skills for further study in calculus and engineering. The course will be taught in the lecture format, one hour per class, three hours per week, with an additional one-hour problem-solving

recitation. **Prerequisite:** Pre-Calculus PRPM 0022

MATH 1423: Calculus II (3,1) This course is the continuation of MATH 1422: Calculus I. It covers topics from integral calculus of one variable, infinite sequences and series, and vectors. Students continue to acquire the necessary mathematical knowledge and skills for further study in calculus and engineering. The course will be taught in the lecture format, one hour per class, three hours per week, with an additional one-hour problem-solving recitation. **Prerequisite:** MATH 1422: Calculus I.

MATH 1324: Calculus III (3,0) This course is the continuation of MATH 1423: Calculus II and the final course in the pre-engineering calculus sequence. It covers topics from multivariable calculus including vector-valued functions, multiple integration, and vector analysis. Students complete their acquisition of the necessary mathematical knowledge and skills for further study in engineering. **Prerequisite:** MATH 1423: Calculus II

MATH 2331: Linear Algebra (3,0) This course covers topics from linear algebra including vector spaces, linear transformations and matrices, matrix operations, and eigen-vectors and eigen-values. Students acquire mathematical knowledge and skills with matrices, linear systems, and vector spaces necessary for further study in engineering. The course will be taught in the lecture format, one hour per class, three classes per week. **Prerequisite:** MATH 1324: Calculus III

MATH 2332: Ordinary Differential Equations (3,0) This course covers topics involving single variable differential equations. These include methods for solving first and second order differential equations, Laplace Transforms, and Fourier Series and Transforms. Students acquire mathematical knowledge and skills to model and solve problems arising from engineering. The course will be taught in the lecture format. **Prerequisites:** MATH 1324: Calculus III

Physics – PHYS

PHYS 1411: Introductory Physics (3,1) This course will investigate the fundamental principles that underlie the behavior of the universe. The approach will be largely a conceptual one that leads to an understanding of physics rather than just the ability to solve mathematical problems that are examples of physics. Students will gain familiarity with the forces and laws of nature that govern the physical world, from the sub-atomic to astronomical levels. Importantly, students will be guided through concepts in physics that ultimately let them recognize important, practical applications in the everyday world of fundamental physical principles. This course is in the format of a three-credit lecture session and a mandatory, separately scheduled one-credit laboratory. **Prerequisite:** None.

PHYS 1421: Physics for Engineers I (3,1) This course will create a base for a two-semester physics sequence and provide the additional physics required by engineering students prior to specialized courses in engineering physics

applications. The approach, like that of PHYS 1422, will be largely conceptual leading to an understanding of physics rather than just the ability to solve mathematical problems that are examples of physics. Students in this course will gain familiarity with single particle kinematics and dynamics, multi-particle systems, rotational motion, oscillations, waves and sound. This course is in the format of a three-credit lecture session and a mandatory, separately scheduled one-credit laboratory that accompanies it. **Prerequisites:** Pre-Calculus PRPM 0022

PHYS 1422: Physics for Engineers II (3,1) This course will build upon the base offered in PHYS 1421, and provide the additional physics required by engineering students prior to specialized courses in engineering physics applications. The approach will be largely conceptual leading to an understanding of physics rather than just the ability to solve mathematical problems that are examples of physics. Students in this course will gain familiarity with electricity, magnetism, nuclear physics and how light interacts with matter. This course is in the format of a three-credit lecture session and a mandatory, separately scheduled one-credit laboratory that accompanies it. **Prerequisite:** PHYS 1421: Physics for Engineers I, MATH 1422: Calculus I.

University Core – UNIV

UNIV 1211: Professional Development and Competencies (2,0) This course provides a foundation to use basic skills of learning and time management and apply these skills toward competencies related to the student's chosen field. Students are introduced to the opportunities, required skills, challenges, and ethics of their chosen field, as well as to the expectations of prospective employers and accrediting agencies (where applicable). **Prerequisite:** None

UNIV 1212: Critical Thinking and Problem Solving (2,0) This course covers basic topics involving critical thinking and problem solving. These include deductive and inductive reasoning, values and ethics, fallacy, and causality. The students will learn how to analyze and present valid arguments. **Prerequisite:** UNIV 1211: Professional Development and Competencies

UNIV 1213: Leadership and Teamwork (2,0) This interdisciplinary course will introduce students to the characteristics of leadership. Students gain a broad understanding of the theoretical approaches to leadership and teamwork and the core concepts of contemporary leadership. Mastering the fundamental concepts increases the student's ability to apply these concepts to his or her own life experience. **Prerequisite:** UNIV 1211: Professional Development and Competencies, UNIV 1212: Critical Thinking and Problem Solving

COLLEGE OF ENGINEERING

COLLEGE OVERVIEW

The College of Engineering accepts successful male students from PMU's Preparation Year Program or other qualified male students into degree programs in engineering.

Within the College of Engineering, PMU's Department of Interior Design provides knowledge and appropriate training for women to be creative and innovative designers.

While students completing engineering degrees at PMU could certainly continue on to graduate studies, the main emphasis in the engineering programs is on the preparation of graduates for employment.

Vision and Mission

Vision

The College of Engineering at PMU offers a unique and distinguished education that prepares future leaders and innovators in the engineering disciplines of civil, electrical, mechanical engineering and interior design. The education process will explore innovative methodologies and technologies to achieve its objectives.

Mission

PMU's College of Engineering will educate tomorrow's engineering leaders and innovators, will create new knowledge, will provide a nurturing environment of team work and lifelong learning, and will positively impact the economic prosperity of the Kingdom of Saudi Arabia.

Degrees Offered

The College of Engineering offers the following degree programs:

- Bachelor of Science in Civil Engineering
- Bachelor of Science in Electrical Engineering
- Bachelor of Science in Interior Design
- Bachelor of Science in Mechanical Engineering.

ADMISSIONS PROCESS AND REQUIREMENTS

Admission to studies in the departments of Civil, Electrical, and Mechanical Engineering is open to male students who have completed the PMU Preparatory Program or who have met the university criteria for bypassing the program.

Admission to studies in the department of Interior Design is open to female students who have completed the PMU Preparatory Program or who have met the university criteria for bypassing the program.

Students seeking entry to degree studies in Interior Design may be requested to submit a

design portfolio in place of the required essay. The portfolio should provide evidence of the student's existing interest in art or design. Such evidence might include drawings and a written statement designed to indicate the student's talent and desire to achieve success.

Required Courses in the Preparatory Program

The PMU Preparatory Program concentrates on English language, mathematics, and study skills. Within this program, the first semester math course, PRPM 0011: Introductory Algebra, is required of all students. However, during the second semester of mathematics, students have a choice of two tracks, depending on their desired major at the university.

Students seeking entrance to majors in Civil, Electrical, and Mechanical Engineering are required to take PRPM 0022: Pre-Calculus, during the second semester of the Preparatory Program.

Students seeking entrance to the Department of Interior Design should take PRPM 0012: Intermediate Algebra, during the second semester of the Preparatory Program.

PERFORMANCE EXPECTATIONS

Required Grade Average - Civil, Electrical, and Mechanical Engineering

The College of Engineering provides for minimum standards of academic performance from its students. Using a 4.0 scale for course grades, the College of Engineering will require that students maintain minimum grades of:

- 2.0 in courses from the PMU Core Curriculum
- 2.0 in all degree-specific courses (courses from the Core Curriculum that engineering students must take beyond the minimum requirement)
- 2.25 in all courses required in the College of Engineering that are common to all engineering majors
- 2.5 in all courses within the major academic discipline

All PMU engineering majors are required to pass an internationally-normed subject content exam.

A student who receives a D (1.0) or F in any course will be required to repeat the course and to achieve the required grade point score. In the case of an elective, another elective may be selected. These students will be required to participate in tutoring and remediation programs offered by the college faculty and the PMU Learning Resources Center.

Required Grade Average - Interior Design

The Department of Interior Design will require students to maintain minimum standards of academic performance. Using a 4.0 scale for course grades, the department will require students to maintain a minimum grade point average of:

- 2.0 in all Core Curriculum courses
- 2.25 in all electives
- 2.5 in all interior design courses

A student who receives a grade lower than 2.5 in an interior design course will be required to repeat the course and to achieve the required grade point score. These students also will be required to participate in tutoring and remediation programs offered by the interior design faculty and Learning Resources Center. The course may be repeated one time or more with consent of the instructor.

Assessment of Interior Design Portfolios

Student advancement through the interior design program is determined by a series of assessments at which each student must demonstrate her readiness to step up to more advanced study.

At the conclusion of the second semester of the freshman year, all students will submit a portfolio of work. The interior design faculty will assess the individual portfolios as “conditional” or “unconditional” indicating the student’s readiness to advance. “Conditional” assessments will be made in writing signed by the faculty.

The student must comply with the faculty recommendations within one semester. A student not meeting the conditions of the “conditional” evaluation will not advance to the next level of course work.

Each course includes evaluation criteria based on course level and course criteria. These criteria include drafting skills, the use of universal building codes and requirements, graphic and oral presentations, exams, written papers, use of principles and elements of design process, notebooks, and project development.

Studio work is assessed based on written materials, graphic presentation, appropriate problem solutions, technical skills, and oral presentation. The student’s understanding of materials presented in lectures is assessed by exams, written essays, identification quizzes, notebooks, and student-produced illustrations.

Seniors must successfully present their portfolios to a professional panel. The professional panel will assess the portfolio presentations based on specific criteria. The criteria include design processes and space planning.

Student Computing Requirements

Civil, Electrical, and Mechanical Engineering

Students within the College of Engineering are required to have personal laptop computers. They have access to the university-wide technology-infused environment including wireless Internet access.

Students in the college also have specific computing requirements that extend beyond the standard Microsoft Office applications of a typical laptop. Many of these specific computing requirements are available through the university's technology infrastructure to students' laptop computers. Others are provided through general access and specialized computer laboratories.

Interior Design

Students studying interior design are required to have personal laptop computers. They have access to the university-wide technology-infused environment including wireless Internet access. Technologies such as interactive television, video conferencing, and Blackboard or WebTV are central to maintaining effective communication between faculty and students and among students.

Students in interior design also have specific computing requirements that stem largely from the demanding graphics software that they must learn and use. These students, therefore, must have a laptop computer that is capable of handling this software. Their laptop computers should meet or exceed the capabilities of the computers in the department's dedicated computer labs.

COMPONENTS OF DEGREE PROGRAMS

Each engineering degree program in PMU's College of Engineering consists of a 139 semester credit hours. The interior design program consists of 127 semester credit hours.

Majors in Civil, Electrical, and Mechanical Engineering

Each of the engineering degree programs offered within the College of Engineering consists of five components.

General Education Requirements: These requirements for the University Core Curriculum and College Core Curriculum include 60 credit hours of courses in the PMU core competencies, communication, Arabic Language and Islamic Studies, physical education, mathematics, laboratory science, and social and behavioral sciences.

Additional Core Curriculum Requirements: These requirements include courses in mathematics and laboratory science in addition to the Core Curriculum requirements. These requirements add 12 credit hours beyond the 60 hour minimum for a total of 72 hours from the Core Curriculum.

Specifically, engineering degree programs extend PMU's College Core requirement of six semester credit hours of mathematics to 14 hours, and specify that the courses will be:

- MATH 1422: Calculus I
- MATH 1423: Calculus II
- MATH 1324: Calculus III

MATH 2332: Differential Equations

University Core Curriculum requires eight semester hours of Natural and Physical Science. Engineering degree programs extend PMU's College Core requirements in Natural and Physical Sciences from eight semester credit hours to 12 hours and specify that the courses will be:

CHEM 1421: Chemistry for Engineers I
PHYS 1421: Physics for Engineers I
PHYS 1422: Physics for Engineers II

College of Engineering Requirements: These requirements consist of seven courses totaling 19 credit hours that are common to all engineering degree programs in the College of Engineering. They represent a base of knowledge that is presumed for all engineers. The courses within the College of Engineering that meet these requirements are designated with the prefix GEEN. These courses include the following:

GEEN 1211: Introduction to Engineering
GEEN 2311: Statics and Dynamics of Rigid Bodies I
GEEN 2312: Introduction to Computing
GEEN 2313: Thermodynamics I
GEEN 2314: Circuits I
GEEN 3211: Engineering Economy
GEEN 3311: Introduction to Fluid Mechanics

Degree Program Requirements: Each degree program has unique course requirements that apply to the degree major and that also differentiate the program from other majors within the college.

Electives: Each degree program identifies the available electives and any constraints that will apply to the selection and scheduling of electives.

Of the total 139 hours required for a bachelor's degree in engineering, 91 credit hours are common to all three degrees.

Major in Interior Design

PMU's Interior Design program provides a firm foundation for aspiring entry-level professionals. Courses provide a broad perspective of the profession and issues of practice as well as detailed instruction and experience in how to apply learning in a professional setting.

With the exception of six credit-hours of electives, all students in the interior design program pursue the same program in which they take the same courses in the same sequence. Interior design is a demanding discipline that covers a full range of technical, aesthetic, ethical, and functional topics. In order to best include these topics, the curriculum will center on a combination of lecture classes and interior design studios. In the studios, students have the opportunity to integrate multiple aspects and concepts of interior design into their projects. Electives

provide students an opportunity to freely select additional courses from a specified list to further enhance their educational experience.

Courses taught by the Department of Interior Design are:

- IDES 1211: Introduction to Interior Design
- IDES 1212: Interior Design I
- IDES 1413: Interior Design II
- IDES 2331: Behavior and the Physical Environment
- IDES 2332: Materials for Interior Design
- IDES 2411: Interior Design III – Digital Media, Residential Design
- IDES 2412: Interior Design IV – Digital Media, Non-Residential Design
- IDES 3321: Interior Building Systems I
- IDES 3322: Interior Building Systems II
- IDES 3331: Interior Lighting
- IDES 3332: Introduction to Furniture Design
- IDES 3341: History of Furniture, Decoration, and Interior Design I
- IDES 3342: History of Furniture, Decoration, and Interior Design II
- IDES 3343: Professional Practices for Interior Designers
- IDES 3411: Interior Design V – Office Design
- IDES 3412: Interior Design Studio VI – Hospitality
- IDES 4337: Sustainable Design
- IDES 4338: Interior Design Internship
- IDES 4425: Interior Design VII – Healthcare Design
- ASSE 4311: Learning Outcome Assessment III (Capstone / Interior Design Studio)

In order to enhance the employment opportunities and options for female graduates of PMU's Interior Design Program, the department emphasizes the use of technology and its application for creative problem solving. This focus provides students with the necessary skills for working with a range of employers while being physically located in their homes.

Capstone Series – Civil, Electrical, and Mechanical Engineering

PMU's Core Curriculum includes a series of three required assessment courses. The series begins in the sophomore year with ASSE 2111: Learning Outcome Assessment I and continues in the junior year with ASSE 3211: Learning Outcome Assessment II. The series culminates in the senior year with a final capstone design course, ASSE 4311: Learning Outcome Assessment III.

The engineering programs in the College of Engineering treat the final capstone course as a group of three engineering courses that will integrate conceptual material and practical experience in an environment of professional-grade engineering design. For each of the majors, the engineering capstone course group is structured as follows:

Civil Engineering:

- GEEN 3211: Engineering Economy
- CVEN 3312: Reinforced Concrete Design

ASSE 4311: Learning Outcome Assessment III

Electrical Engineering:

GEEN 3211: Engineering Economy
EEEN 4311: Design Methodology and Project Management
ASSE 4311: Learning Outcome Assessment III

Mechanical Engineering:

GEEN 3211: Engineering Economy
MEEN 3393: Mechanical Engineering Design III
ASSE 4311: Learning Outcome Assessment III

Capstone Course – Interior Design

During the second semester of the senior year, each student will undertake and complete a comprehensive interior design project in consultation with interior design faculty. Intended to simulate a work-world design project in the specialization sought after graduation, the course includes skills and subject-matter the student has learned in earlier classes including concepts, procedures, and processes. The project includes a complete set of drawings for design and construction, furniture specifications, and a formal presentation package of professional quality. The result provides the major project for the student's professional portfolio of work.

Internships for PMU's Interior Design Students

In order to expand internship opportunities available to female interior design students, PMU has established a Community Design Resource Center. This center encourages members of the community to seek professional advice for small interior design projects that the students can complete under the supervision of the faculty. These projects include both commercial and residential work.

The center is jointly operated by PMU's Department of Interior Design and the PMU Center for Research Development and Continuing Education.

COURSES REQUIRED FOR MAJORS

Civil Engineering

The Bachelor of Science in Civil Engineering consists of four components totaling 140 credit hours:

Expanded PMU Core Curriculum: This expanded core curriculum consists of 72 hours of coursework.

The College of Engineering Requirements: These requirements consist of 19 hours of coursework contained in the seven courses designated with the GEEN prefix.

Degree Program Requirements: These requirements consist of 46 hours of course work in civil engineering as follows:

- MEEN 2312: Statics and Dynamics of Rigid Bodies II
- MEEN 2211: Materials Engineering
- MEEN 2313: Mechanics of Solids
- CVEN 3322: Materials in Civil Engineering
- CVEN 3311: Structural Analysis
- CVEN 3312: Reinforced Concrete Design
- CVEN 3321: Engineering Geology
- CVEN 3331: Environmental Engineering Fundamentals
- CVEN 3341: Engineering Measurements
- CVEN 4313: Design of Steel Structures
- CVEN 4314: Construction Management
- CVEN 4342: Transportation Engineering
- CVEN 4343: Engineering Probability and Statistics
- CVEN 4423: Introduction to Geotechnical Engineering
- CVEN 4432: Hydraulic Engineering

Degree Electives: The Civil Engineering degree program requires three semester credit hours of electives to be taken from five 4000 level courses. These electives can be chosen from among the following four courses:

- CHEM 1422: Chemistry for Engineers II
- CVEN 4324: Foundation Analysis and Design
- CVEN 4333: Water and Wastewater Treatment
- CVEN 4334: Air Pollution and Control

Electrical Engineering

The Bachelor of Science in Electrical Engineering consists of four components totaling 139 credit hours:

Expanded PMU Core Curriculum: This expanded core curriculum consists of 72 hours of coursework.

The College of Engineering Requirements: These requirements consist of 19 hours of coursework contained in the seven courses designated with the GEEN prefix.

Degree Program Requirements: These requirements consist of 39 hours of course work in electrical engineering as follows:

- EEEN 2111: Circuits I Lab
- EEEN 3312: Circuits II
- EEEN 3331: Digital Systems
- EEEN 3341: Signals and Systems
- EEEN 3361: Electromagnetic Fields and Waves
- EEEN 3391: Probability and Random Signal Analysis
- EEEN 3421: Electronics I
- EEEN 3422: Electronics II

EEEN 4311: Design Methodology and Project Management
EEEN 4331: Microprocessors
EEEN 4351: Automatic Control Systems
EEEN 4361: Electric Machinery
EEEN 4391: Advanced Applied Mathematics

Degree Electives: The Electrical Engineering Degree Program requires nine semester credit hours of electives to be taken from six 4000 level courses composed of two options, in Electrical Power Systems and in Telecommunications Systems.

The Electrical Power Systems Option consists of three courses:

MEEN 3333: Heat Transfer
EEEN 4371: Electric Power Systems
EEEN 4372: Electric Power Transmission and Distribution

The Telecommunications Systems Option consists of three courses:

EEEN 4341: Communication Systems
EEEN 4342: Digital Communication Systems
EEEN 4343: Wireless Communication Systems

Mechanical Engineering

The Bachelor of Science in Mechanical Engineering consists of four components totaling 139 credit hours:—

Expanded PMU Core Curriculum: This expanded core curriculum consists of 72 hours of coursework.

The College of Engineering Requirements: These requirements consist of 19 hours of coursework contained in the seven courses designated with the GEEN prefix.

Degree Program Requirements: These requirements consist of 42 hours of course work in mechanical engineering as follows:

MEEN 2211: Materials Engineering
MEEN 2312: Statics and Dynamics of Rigid Bodies II
MEEN 2313: Mechanics of Solids
MEEN 3211: Introduction to Manufacturing Systems
MEEN 3212: Manufacturing Methods in Design
MEEN 3322: Thermodynamics II
MEEN 3332: Computational Methods
MEEN 3333: Heat Transfer
MEEN 3391: Mechanical Engineering Design I
MEEN 3392: Mechanical Engineering Design II
MEEN 3393: Mechanical Engineering Design III
MEEN 4301: Mechanical Engineering Lab I
MEEN 4302: Mechanical Engineering Lab II

MEEN 4311: Principles of Heating, Ventilation and Air Conditioning

MEEN 4322: Power Generation

Degree Electives: The Mechanical Engineering Degree Program requires six semester credit hours of electives to be selected from eight 4000 level courses within the department. The eight 4000 level courses are:

MEEN 4312: Fluid Mechanics
MEEN 4315: Principles of Building Energy Analysis
MEEN 4331: Internal Combustion Engines
MEEN 4332: Turbo-machinery
MEEN 4341: Corrosion Engineering
MEEN 4392: Advanced Control Systems
MEEN 4344: Materials in Design
MEEN 4351: Intermediate Dynamics
MEEN 4392: Advanced Control Systems

Interior Design

PMU's Interior Design Curriculum consists of 127 semester credit hours, including 6 hours of electives.

PMU's Interior Design program consists of three basic components:

General Education Requirements: These requirements from the University Core Curriculum and the College Core Curriculum will comprise 60 hours of study. The core curriculum is intended as a broad and general education across disciplines. It includes courses in PMU core competencies, communications, Arabic Language and Islamic Studies, physical education, mathematics, laboratory science, and social and behavioral sciences.

Department of Interior Design Requirements: These requirements will comprise 61 hours of study. They will consist of courses in both the lecture and the studio formats. Courses will cover a wide range of topics designed to give the graduate a comprehensive and solid foundation in the profession of interior design.

Electives: Students will take six hours of elective courses. One elective is provided by the Department of Interior Design. Other approved electives are from the course offerings of other colleges and departments of PMU. These electives will provide students with skills they will need to operate an interior design practice as a business, to work together with other professionals in the building industry, and to handle technical aspects of interior design. Students will choose two three-credit-hour courses from the following list:

IDES 3332: Introduction to Furniture Design
ACCT 2311: Fundamentals of Financial Accounting
ACCT 2321: Fundamentals of Managerial Accounting

- BUSI 3311: Legal Environment of Business
- BUSI 3312: Organizational Behavior
- BUSI 3313: Marketing Principles
- MATH 1313 Statistical Methods
- MISY 2311: Introduction to Management Information Systems
- MISY 2312: Introduction Programming for Information Systems

COURSE SEQUENCE FOR MAJORS

Civil Engineering

Total Semester Credit Hours: 140

Freshman Program

| <i>First Semester</i> | <i>Hours</i> |
|---|--------------|
| ALIS 1211: Arabic Language / Islamic Studies..... | 2 |
| COMM 2311: Oral Communications..... | 3 |
| COMM 1311: Written Communication | 3 |
| UNIV 1211: Professional Development and Competencies..... | 2 |
| MATH 1422: Calculus I..... | 4 |
| PHYS 1421: Physics for Engineers I | 4 |
| GEEN 1211: Introduction to Engineering..... | 2 |
| Total Hours:..... | 20 |

| <i>Second Semester</i> | <i>Hours</i> |
|--|--------------|
| ALIS 1212: Arabic Language / Islamic Studies..... | 2 |
| PHED 1111: Physical Education..... | 1 |
| COMM 1312: Writing and Research | 3 |
| UNIV 1212: Critical Thinking and Problem Solving | 2 |
| MATH 1423: Calculus II | 4 |
| CHEM 1421: Chemistry for Engineers I..... | 4 |
| Social Science Elective* | 3 |
| Total Hours:..... | 19 |

**Select any Social Science course from the College Core Curriculum.*

Sophomore Program

| <i>First Semester</i> | <i>Hours</i> |
|---|--------------|
| ALIS 2211: Arabic Language / Islamic Studies..... | 2 |
| ASSE 2111: Learning Outcome Assessment I..... | 1 |
| PHED 1112: Physical Education..... | 1 |
| UNIV 1213: Leadership and Teamwork..... | 2 |
| MATH 1324: Calculus III | 3 |
| PHYS 1422: Physics for Engineers II..... | 4 |
| GEEN 2311: Statics and Dynamics I | 3 |
| Total Hours:..... | 16 |

| <i>Second Semester</i> | <i>Hours</i> |
|---|--------------|
| ALIS 2212: Arabic Language / Islamic Studies..... | 2 |
| GEEN 2313: Thermodynamics I..... | 3 |
| GEEN 2312: Introduction to Computing | 3 |
| MATH 2332: Differential Equations | 3 |
| MEEN 2312: Statics and Dynamics of Rigid Bodies II..... | 3 |
| GEEN 2314: Circuits I | 3 |
| Total Hours:..... | 17 |

Junior Program

| <i>First Semester</i> | <i>Hours</i> |
|---|--------------|
| ALIS 3211: Arabic Language / Islamic Studies..... | 2 |
| ASSE 3211: Learning Outcome Assessment I..... | 2 |
| MEEN 2211: Materials Engineering..... | 2 |
| GEEN 3311: Introduction to Fluid Mechanics | 3 |
| CVEN 3311: Structural Analysis | 3 |
| CVEN 3321: Engineering Geology..... | 3 |
| MEEN 2313: Mechanics of Solids..... | 3 |
| Total Hours:..... | 18 |

| <i>Second Semester</i> | <i>Hours</i> |
|--|--------------|
| ALIS 3212: Arabic Language / Islamic Studies..... | 2 |
| CVEN 3322: Materials in Civil Engineering | 3 |
| COMM 2312: Technical and Professional Communications | 3 |
| CVEN 3312: Reinforced Concrete Design | 3 |
| CVEN 3341: Engineering Measurements | 3 |
| CVEN 3331: Environmental Engineering Fundamentals | 3 |
| Total Hours:..... | 17 |

Senior Program

| <i>First Semester</i> | <i>Hours</i> |
|---|--------------|
| ALIS 4211: Arabic Language / Islamic Studies..... | 2 |
| GEEN 3211: Engineering Economy | 2 |
| CVEN 4432: Hydraulic Engineering | 4 |
| CVEN 4313: Design of Steel Structures | 3 |
| CVEN 4423: Introduction to Geotechnical Engineering | 4 |
| CVEN 4342: Transportation Engineering..... | 3 |
| Total Hours:..... | 18 |

| <i>Second Semester</i> | <i>Hours</i> |
|---|--------------|
| ASSE 4311: Learning Outcome Assessment III (Capstone) | 3 |
| CVEN 4343: Engineering Probability and Statistics | 3 |

| | |
|--|-----------|
| CVEN 4314: Construction Management | 3 |
| CVEN Elective** | 3 |
| Social Science Elective* | 3 |
| Total Hours:..... | 15 |

**Select any Social Science course from the College Core Curriculum.*

***Select from CVEN 4324: Foundation Analysis and Design, CVEN 4334: Air Pollution and Control, CVEN 4333: Water and Wastewater Treatment, or CHEM 1422: Chemistry for Engineers II*

Electrical Engineering

Total Semester Credit Hours: 139

Freshman Program

| <i>First Semester</i> | <i>Hours</i> |
|--|--------------|
| ALIS 1211: Arabic Language / Islamic Studies..... | 2 |
| COMM 2311: Oral Communications..... | 3 |
| COMM 1311: Written Communications..... | 3 |
| UNIV 1211: Professional Development and Competencies | 2 |
| MATH 1422: Calculus I..... | 4 |
| PHYS 1421: Physics for Engineers I | 4 |
| GEEN 1211: Introduction to Engineering..... | 2 |
| Total Hours:..... | 20 |

| <i>Second Semester</i> | <i>Hours</i> |
|--|--------------|
| ALIS 1212: Arabic Language / Islamic Studies..... | 2 |
| PHED 1111: Physical Education..... | 1 |
| COMM 1312: Writing and Research | 3 |
| UNIV 1212: Critical Thinking and Problem Solving | 2 |
| MATH 1423: Calculus II | 4 |
| CHEM 1421: Chemistry for Engineers I..... | 4 |
| Social Science Elective* | 3 |
| Total Hours:..... | 19 |

**Select any Social Science course from the College Core Curriculum*

Sophomore Program

| <i>First Semester</i> | <i>Hours</i> |
|---|--------------|
| ALIS 2211: Arabic Language / Islamic Studies..... | 2 |
| ASSE 2111: Learning Outcome Assessment I..... | 1 |
| PHED 1112: Physical Education..... | 1 |
| UNIV 1213: Leadership and Teamwork..... | 2 |
| MATH 1324: Calculus III | 3 |
| PHYS 1422: Physics for Engineers II | 4 |
| GEEN 2311: Statics and Dynamics I | 3 |
| Total Hours:..... | 16 |

| <i>Second Semester</i> | <i>Hours</i> |
|--|--------------|
| ALIS 2212: Arabic Language / Islamic Studies..... | 2 |
| COMM 2312: Technical and Professional Communications | 3 |
| GEEN 2312: Introduction to Computing | 3 |
| GEEN 2313: Thermodynamics I..... | 3 |
| MATH 2332: Differential Equations | 3 |
| GEEN 2314: Circuits I | 3 |
| EEEN 2111: Circuits I Lab | 1 |
| Total Hours:..... | 18 |

Junior Program

| <i>First Semester</i> | <i>Hours</i> |
|---|--------------|
| ALIS 3211: Arabic Language / Islamic Studies..... | 2 |
| ASSE 3211: Learning Outcome Assessment II | 2 |
| EEEN 3312: Circuits II | 3 |
| EEEN 3421: Electronics I | 4 |
| EEEN 3331: Digital Systems | 3 |
| GEEN 3311: Introduction to Fluid Mechanics | 3 |
| Total Hours:..... | 17 |

| <i>Second Semester</i> | <i>Hours</i> |
|---|--------------|
| ALIS 3212: Arabic Language / Islamic Studies..... | 2 |
| GEEN 3211: Engineering Economy | 2 |
| EEEN 3391: Probability and Random Signal Analysis | 3 |
| EEEN 3341: Signals and Systems..... | 3 |
| EEEN 3361: Electromagnetic Fields and Waves..... | 3 |
| EEEN 3422: Electronics II..... | 4 |
| Total Hours:..... | 17 |

Senior Program

| <i>First Semester</i> | <i>Hours</i> |
|---|--------------|
| ALIS 4211: Arabic Language / Islamic Studies..... | 2 |
| EEEN 4391: Advanced Applied Mathematics..... | 3 |
| EEEN 4311: Design Methodology and Project Management..... | 3 |
| EEEN 4331: Microprocessors..... | 3 |
| EEEN 4361: Electric Machinery..... | 3 |
| EEEN Elective** | 3 |
| Total Hours:..... | 17 |

**Select all electives from one group:

Group I - Electrical Power Systems: MEEN 3333: Heat Transfer, EEEN 4371: Electric Power Systems ,and EEEN 4372: Electric Power Transmission and Distribution

Group II - Telecommunications Systems: EEEN 4341: Communication

Systems, EEEN 4342: Digital Communication Systems, or EEEN 4343: Wireless Communication Systems

| <i>Second Semester</i> | <i>Hours</i> |
|---|--------------|
| ASSE 4311: Learning Outcome Assessment III (Capstone) | 3 |
| EEEN 4351: Automatic Control Systems | 3 |
| EEEN Elective** | 3 |
| EEEN Elective** | 3 |
| Social Science Elective* | 3 |
| Total Hours:..... | 15 |

**Select any Social Science course from the College Core Curriculum.*

***Select all electives from one group:*

Group I - Electrical Power Systems: MEEN 3333: Heat Transfer, EEEN 4371: Electric Power Systems, and EEEN 4372: Electric Power Transmission and Distribution

Group II - Telecommunications Systems: EEEN 4341: Communication Systems, EEEN 4342: Digital Communication Systems, or EEEN 4343: Wireless Communication Systems

Mechanical Engineering

Total Semester Credit Hours: 139

Freshman Program

| <i>First Semester</i> | <i>Hours</i> |
|--|--------------|
| ALIS 1211: Arabic Language / Islamic Studies..... | 2 |
| COM 2311: Oral Communications | 3 |
| COMM 1311: Written Communication | 3 |
| UNIV 1211: Professional Development and Competencies | 2 |
| MATH 1422: Calculus I..... | 4 |
| PHYS 1421: Physics for Engineers..... | 4 |
| GEEN 1211: Introduction to Engineering..... | 2 |
| Total Hours:..... | 20 |

| <i>Second Semester</i> | <i>Hours</i> |
|--|--------------|
| ALIS 1212: Arabic Language / Islamic Studies..... | 2 |
| PHED 1111: Physical Education..... | 1 |
| COMM 1312: Writing and Research | 3 |
| UNIV 1212: Critical Thinking and Problem Solving | 2 |
| MATH 1423: Calculus II | 4 |
| CHEM 1421: Chemistry for Engineers I..... | 4 |
| Social Science Elective* | 3 |
| Total Hours:..... | 19 |

**Select any Social Science course from the College Core Curriculum.*

Sophomore Program

| <i>First Semester</i> | <i>Hours</i> |
|---|--------------|
| ALIS 2211: Arabic Language / Islamic Studies..... | 2 |
| ASSE 2111: Learning Outcome Assessment I..... | 1 |
| PHED 1112: Physical Education..... | 1 |
| UNIV 1213: Leadership and Teamwork..... | 2 |
| MATH 1324: Calculus III..... | 3 |
| PHYS 1422: Physics for Engineers II..... | 4 |
| GEEN 2311: Statics and Dynamics I..... | 3 |
| Total Hours:..... | 16 |

| <i>Second Semester</i> | <i>Hours</i> |
|--|--------------|
| ALIS 2212: Arabic Language / Islamic Studies..... | 2 |
| COMM 2312: Technical and Professional Communications | 3 |
| GEEN 2313: Thermodynamics I..... | 3 |
| GEEN 2312: Introduction to Computing | 3 |
| MATH 2332: Differential Equations | 3 |
| MEEN 2312: Statics and Dynamics II..... | 3 |
| MEEN 2211: Materials Engineering..... | 2 |
| Total Hours:..... | 19 |

Junior Program

| <i>First Semester</i> | <i>Hours</i> |
|--|--------------|
| ALIS 3211: Arabic Language / Islamic Studies..... | 2 |
| ASSE 3211: Learning Outcome Assessment II | 2 |
| MEEN 3211: Introduction to Manufacturing Systems | 2 |
| MEEN 3322: Thermodynamics II..... | 3 |
| GEEN 3311: Introduction to Fluid Mechanics | 3 |
| MEEN 3391: Mechanical Engineering Design I..... | 3 |
| MEEN 3332: Computational Methods..... | 3 |
| Total Hours:..... | 18 |

| <i>Second Semester</i> | <i>Hours</i> |
|---|--------------|
| ALIS 3212: Arabic Language / Islamic Studies..... | 2 |
| MEEN 2313: Mechanics of Solids..... | 3 |
| MEEN 3212: Manufacturing Methods in Design | 2 |
| GEEN 2314: Circuits I..... | 3 |
| MEEN 3333: Heat Transfer | 3 |
| MEEN 3392: Mechanical Engineering Design II | 3 |
| Total Hours:..... | 16 |

Senior Program

| <i>First Semester</i> | <i>Hours</i> |
|---|--------------|
| ALIS 4211: Arabic Language / Islamic Studies..... | 2 |
| MEEN 3393: Mechanical Engineering Design III..... | 3 |
| MEEN 4301: Mechanical Engineering Lab I..... | 3 |
| GEEN 3211: Engineering Economy | 2 |
| MEEN 4322: Power Generation | 3 |
| MEEN Elective** | 3 |
| Total Hours:..... | 16 |

***Select from MEEN 4312: Fluid Mechanics, MEEN 4315: Building Energy Analysis, MEEN 4331: Internal Combustion Engines, MEEN 4332: Turbomachinery, MEEN 4341: Corrosion Engineering, MEEN: 4344 Materials in Design, MEEN 4351: Intermediate Dynamics, or MEEN 4392: Advanced Control Systems.*

| <i>Second Semester</i> | <i>Hours</i> |
|--|--------------|
| ASSE 4311: Learning Outcome Assessment III (ME Design IV)..... | 3 |
| MEEN 4302: Mechanical Engineering Lab II | 3 |
| MEEN 4311: Principles of HVAC..... | 3 |
| MEEN Elective** | 3 |
| Social Science Elective* | 3 |
| Total Hours:..... | 15 |

** Select any Social Science course from the College Core Curriculum*

***Select from MEEN 4312: Fluid Mechanics, MEEN 4315: Building Energy Analysis, MEEN 4331: Internal Combustion Engines, MEEN 4332: Turbomachinery, MEEN 4341: Corrosion Engineering, MEEN: 4344 Materials in Design, MEEN 4351: Intermediate Dynamics, or MEEN 4392: Advanced Control Systems.*

Interior Design

Total Semester Credit Hours: 127

Freshman Program

| <i>First Semester</i> | <i>Hours</i> |
|--|--------------|
| ALIS 1211: Arabic Language / Islamic Studies..... | 2 |
| COMM 2311: Oral Communications..... | 3 |
| COMM 1311: Written Communication | 3 |
| UNIV 1211: Professional Development and Competencies | 2 |
| IDES 1211: Introduction to Interior Design..... | 2 |
| IDES 1212: Interior Design I | 2 |
| MATH 1311: Finite Mathematics for Students of Business | 3 |
| Total Hours:..... | 17 |

| <i>Second Semester</i> | <i>Hours</i> |
|--|--------------|
| ALIS 1212: Arabic Language / Islamic Studies..... | 2 |
| PHED 1111: Physical Education..... | 1 |
| COMM 1312: Writing and Research | 3 |
| UNIV 1212: Critical Thinking and Problem Solving | 2 |
| IDES 1413: Interior Design II..... | 4 |
| MATH 1312: Calculus for Students of Business..... | 3 |
| Total Hours:..... | 15 |

Sophomore Program

| <i>First Semester</i> | <i>Hours</i> |
|---|--------------|
| ALIS 2211: Arabic Language / Islamic Studies..... | 2 |
| ASSE 2111: Learning Outcome Assessment I..... | 1 |
| PHED 1112: Physical Education..... | 1 |
| UNIV 1213: Leadership and Teamwork..... | 2 |
| IDES 2411: Interior Design III – Digital Media, Residential Design..... | 4 |
| IDES 2331: Behavior and the Physical Environment | 3 |
| Total Hours:..... | 13 |

| <i>Second Semester</i> | <i>Hours</i> |
|--|--------------|
| ALIS 2212: Arabic Language / Islamic Studies..... | 2 |
| COMM 2312: Technical and Professional Communications | 3 |
| IDES 2412: Interior Design IV– Digital Media, Non-Residential Design . | 4 |
| IDES 2332: Materials for Interior Design..... | 3 |
| PHYS 1411: Introductory Physics | 4 |
| Total Hours:..... | 16 |

Junior Program

| <i>First Semester</i> | <i>Hours</i> |
|--|--------------|
| ALIS 3211: Arabic Language / Islamic Studies..... | 2 |
| ASSE 3211: Learning Outcome Assessment II | 2 |
| IDES 3411: Interior Design V – Office Design | 4 |
| IDES 3341: History of Furniture, Decoration, and Interior Design I | 3 |
| IDES 3321: Interior Building Systems..... | 3 |
| IDES 3331: Interior Lighting | 3 |
| Total Hours:..... | 17 |

| <i>Second Semester</i> | <i>Hours</i> |
|---|--------------|
| ALIS 3212: Arabic Language / Islamic Studies..... | 2 |
| IDES 3412: Interior Design VI – Hospitality..... | 4 |
| IDES 3342: History of Furniture, Decoration, and Interior Design II | 3 |
| IDES 3322: Interior Building Systems II | 3 |
| IDES 3343: Professional Practices..... | 3 |
| Elective* | 3 |
| Total Hours:..... | 18 |

** Select from IDES 3332: Introduction to Furniture Design, ACCT 2311: Fundamentals of Financial Accounting, ACCT 2321: Fundamentals of Managerial Accounting, BUSI 3311 Legal Environment of Business, BUSI 3312: Organizational Behavior, BUSI 3313: Marketing Principles, MATH 1313: Statistical Methods, MISY 2311: Introduction to Management Information Systems, MISY 2312: Introduction Programming for Information Systems*

Senior Program

| <i>First Semester</i> | <i>Hours</i> |
|---|--------------|
| ALIS 4211: Arabic Language / Islamic Studies..... | 2 |
| IDES 4425: Interior Design VII – Healthcare..... | 4 |
| IDES 4437: Sustainable Design | 3 |
| GEOL 1411: Introductory Physical Geology | 4 |
| ECON 1311: Introduction to Macroeconomics..... | 3 |
| Total Hours:..... | 16 |

| <i>Second Semester</i> | <i>Hours</i> |
|--|--------------|
| ASSE 4311: Learning Outcome Assessment III (Capstone Interior Design Studio) | 3 |
| IDES 4338: Internship** | 3 |
| HIST 1311: World Civilizations, 1600 – Present | 3 |
| PSYCH 1311: Introduction to Psychology | 3 |
| Elective* | 3 |
| Total Hours:..... | 15 |

** Select from IDES 3332: Introduction to Furniture Design, ACCT 2311: Fundamentals of Financial Accounting, ACCT 2321: Fundamentals of Managerial Accounting, BUSI 3311 Legal Environment of Business, BUSI 3312: Organizational Behavior, BUSI 3313: Marketing Principles, MATH 1313: Statistical Methods, MISY 2311: Introduction to Management Information Systems, MISY 2312: Introduction Programming for Information Systems*

***If the student wishes or if availability of internships dictates, IDES 4388 can be taken during the summer prior to the senior year.*

UNDERGRADUATE COURSES OFFERED BY THE COLLEGE OF ENGINEERING

Assessment – ASSE

Civil, Electrical and Mechanical Engineering

ASSE 4311: Learning Outcome Assessment III (3,0) This Capstone course in the PMU Civil, Electrical, and Mechanical Engineering programs requires students to complete a design project from project identification through problem statement, conceptual design, project analysis, final design, report preparation, and a final oral presentation. Students work in groups of three (ideally, one student from each major) and apply the knowledge they have acquired to demonstrate their mastery of the discipline through a well-executed project. **Prerequisite:** Academic standing as a second semester senior

Interior Design

ASSE 4311: Learning Outcome Assessment III (1,2) This Capstone course in Interior Design is a design studio that addresses the creative, professional, technical, and historical issues involved in a problem chosen and defined by the student. This course culminates in the formal presentation of a unique solution to the problem as a part of the final professional portfolio. **Prerequisites:** Fourth year standing in the interior design program, IDES 4425: Interior Design Studio VII, IDES 4337: Sustainable Design.

Civil Engineering – CVEN

CVEN 3322: Materials in Civil Engineering (2,1) This course provides students with basic knowledge of the properties and behavior of materials commonly used in civil engineering structural systems. Various materials, such as wood, aggregates, cement concrete, asphalt concrete, and steel are studied in this course. Students find the knowledge they learned from this course useful to various design, analysis, construction, and maintenance projects in their current or future civil engineering practices. **Prerequisites:** MEEN 2211: Materials Engineering, MEEN 2313: Mechanics of Solids

CVEN 3311: Structural Analysis (3,0) This course provides students with the concepts and methods in the design and analysis of civil engineering structure systems. The course familiarizes students with theory and techniques for the analysis of framed structures, trusses, girders, and beams. Students learn to solve statically determinate and indeterminate structure systems using classical methods, influence lines, and stiffness matrices. Students learn to determine deflections and deformations of a structural system under external static and dynamic loads. The course focuses on problem solving to help students acquire knowledge in the theory and analysis of structure and its behavior.

Prerequisites: GEEN 2311: Statics and Dynamics of Rigid Bodies I, Concurrent Registration of MEEN 2313: Mechanics of Solids

CVEN 3312: Reinforced Concrete Design (3,0) This course develops students' ability in the analysis, design, and application of reinforced concrete in civil engineering structures. The course familiarizes students with the strength and deformation of reinforced concrete and design of beams, columns, slabs, footings, and retaining walls using current design specifications. While the U.S. Building Code Requirements for Structural Concrete (ACI 318-02) are used in the discussion and practice of this course, the current U.S. ACI-equivalent specifications for the Kingdom of Saudi Arabia are preferred. **Prerequisites:** CVEN 3311: Structural Analysis, MEEN 2313: Mechanics of Solids

CVEN 3321: Engineering Geology (3,0) This course provides students with an understanding of the principles of physical geology and their practical applications to civil engineering. **Prerequisites:** CHEM 1421: Chemistry for Engineers I, PHYS 1421: Physics for Engineers I, GEEN 2311: Statics and Dynamics of Rigid Bodies I

CVEN 3331: Environmental Engineering Fundamentals (3,0) This course introduces students to the fundamental principles of environmental engineering and environmental ethics that lead to sustainability for humans and the ecological systems that support us. **Prerequisites:** CHEM 1421: Chemistry for Engineers I, MATH 1422: Calculus I, GEEN 3311: Introduction to Fluid Mechanics

CVEN 3341: Engineering Measurements (2,1) This course introduces students to the theories and practices of various types of survey measurements commonly used in civil engineering. The course covers classic and modern surveying topics including error propagation, linear measurements, angle measurements, area determination, differential leveling, topographic mapping, and geographic information system. **Prerequisites:** GEEN 1211: Introduction to Engineering, PHYS 1421: Physics for Engineers I, PHYS 1422: Physics for Engineers II.

CVEN 4313: Design of Steel Structures (3,0) This course introduces students to the behavior and design of elements in steel structures using current design specifications. The AISC LRFD Code is the choice of design specifications and is used in this course. Students apply their knowledge from statics, mechanics of solids, and structural analysis to gain further understanding in the relationship between analysis and design of steel structures. Students learn the design of steel structural elements including tension members, compression members, beams, members under combined loads, beam-column members, and connections between these elements. The AISC LRFD Code is the choice of design specifications and is used in this course **Prerequisites:** CVEN 3311: Structural Analysis, MEEN 2313: Mechanics of Solids

CVEN 4314: Construction Management (3,0) This course provides students with fundamental principles and concepts of construction project management. Students learn the principles and skills of cost estimation, project planning, activity scheduling, staffing, cost and schedule control, project progress measurement, and quality control. Students also learn how to implement a construction project through the use of computer software. **Prerequisites:** GEEN 3211: Engineering Economy, MATH 1422 Calculus I.

CVEN 4324: Foundation Analysis and Design (3,0) This course provides students with advanced knowledge in the design principles and methods for foundations and earth retaining structures. Students develop a good understanding of the soil and rock mechanics that are critical in the design of foundation, the theories and practices in various types of foundations, the design of spread footings, rafts, and pile foundations according to modern professional practice. **Prerequisites:** CVEN 3322: Materials in Civil Engineering, CVEN 4423: Introduction to Geotechnical Engineering

CVEN 4333: Water and Wastewater Treatment (3,0) This course provides students with a fundamental understanding of the principles of water supply and wastewater engineering and their applications to design and operation of municipal and industrial water treatment systems. Students develop concepts of water quality standards, physical, chemical, and biological treatment processes of water and wastewater, transportation, storage and distribution of water systems, wastewater collection, and wastewater treatment. **Prerequisites:** CVEN 3331: Environmental Engineering Fundamentals, CVEN 4432: Hydraulic Engineering

CVEN 4334: Air Pollution and Control (3,0) This course provides an overview of air pollution. It covers topics such as air pollution meteorology, sources of pollution, pollutant fate and transport, effects of air pollution on human health and the environment, ambient air monitoring, pollution abatement, design and control of gaseous and particulate matter pollutants, and global climate change. **Prerequisites:** CVEN 3331: Environmental Engineering Fundamentals, GEEN 3311: Introduction to Fluid Mechanics.

CVEN 4342: Transportation Engineering (3,0) This course introduces the fundamental principles of transportation engineering, design, and planning. Students develop the skills to model, plan, and manage different components of transportation systems. These components include transportation economics, individual vehicle motion, geometric design of highway, vehicle and human characteristics, traffic flow, highway capacity, highway intersection control and design, and urban transportation. **Prerequisite:** CVEN 3341: Engineering Measurements

CVEN 4343: Engineering Probability and Statistics (2,1) This course introduces the fundamental concepts of probability theory and random processes, engineering data analysis and descriptive statistics, and classical statistical inference. Students learn statistical computing with the Excel software packages. **Prerequisite:** MATH 1324: Calculus III

CVEN 4423: Introduction to Geotechnical Engineering (3,1) This course provides an understanding of the principles and practices of geotechnical engineering. The knowledge is important in many sub-disciplinary areas of civil engineering including environmental, structural, transportation, surveying and foundation engineering. Students develop knowledge of the physical and chemical properties of soil, stresses and strains in saturated soils, and testing procedures to determine mechanical and index properties of soils. Students develop skills to perform basic geotechnical analysis and to address geotechnical problems typically faced by civil engineers. **Prerequisites:** CVEN 3322: Materials in Civil Engineering, GEEN 3311: Introduction to Fluid Mechanics

CVEN 4432: Hydraulic Engineering (3,1) This course introduces students to the essential principles of hydrology and hydraulic engineering. Students acquire fundamental knowledge in hydraulic engineering and develop a depth of understanding in hydrology, groundwater, flows in pipes and piping systems, and open channel hydraulics, hydraulic structures and machinery, and flood damage reduction. **Prerequisite:** GEEN 3311: Introduction to Fluid Mechanics

Electrical Engineering – EEEN

EEEN 2111: Circuits I Lab - Also listed as COEN 2111: Circuits I Lab (0,1) This course covers experimental aspects of the topics covered in GEEN 2314: Circuits I. Topics include basic bread-boarding techniques and circuit construction; use of multi-meters, oscilloscopes, power supplies, and function generators; DC and AC voltage and current measurement techniques; troubleshooting techniques; and comparison of experimental and simulated circuits. **Prerequisites:** MATH 1324: Calculus III, PHYS 1422: Physics for Engineers II. Completion of or concurrent registration for: MATH 2332: Differential Equations, GEEN 2314: Circuits I

EEEN 3312: Circuits II - Also listed as COEN 3312: Circuits II (2,1) This course is a continuation of GEEN 2314: Circuits I. Topics include a review of DC and AC circuit analysis techniques; complex numbers and phasors; use of phasors in the analysis of AC circuits; AC power concepts; polyphase circuits; magnetically coupled circuits; applications of Laplace and Fourier transforms in circuit analysis; s-domain circuit analysis; Bode plots; and filters. **Prerequisites:** MATH 2332: Differential Equations, GEEN 2314: Circuits I, EEEN 2111: Circuits I Lab

EEEN 3331: Digital Systems - Also listed as COEN 3323: Digital Systems (2,1) This course addresses the understanding and design of digital systems. Topics progress through Boolean algebra and logic gates; combinational logic; sequential logic and synchronous sequential logic systems; and design of logic circuits. **Prerequisites:** GEEN 2314: Circuits I, EEEN 2111: Circuits I Lab

EEEN 3341: Signals and Systems - Also listed as COEN 3322: Signals and Systems (3,0) This course presents instruction in electrical signals and systems. Subject matter includes types of signals and systems, signal and system modeling, Fourier Series, Fourier Transform and applications, Laplace Transform and applications, state variable techniques, discrete time signals and systems. **Prerequisite:** EEEN 3312: Circuits II

EEEN 3361: Electromagnetic Fields and Waves (3,0) This course presents a study of electromagnetic fields and their relationship to problem solving in engineering. The course of study begins with the development of an understanding of the basics, moves to integration of the basic knowledge, and proceeds to the ability to use that knowledge to solve electromagnetic field problems using analysis, modeling, and simulation. **Prerequisites:** PHYS 1422: Physics for Engineers II, MATH 1324: Calculus III

EEEN 3391: Probability and Random Signal Analysis (3,0) This course covers probability, statistics, random variables, random signals, introduction to random processes, correlation functions and analysis of linear system response to random inputs and disturbances. Engineering applications to signal processing and linear system analysis also are included. **Prerequisite:** Concurrent registration in EEEN 3341: Signals and Systems

EEEN 3421: Electronics I - Also listed as COEN 3421: Electronics I (3,1) This course is the first of two courses in the use of electronic devices in analog and digital circuits. The lecture component covers device physics and modeling of op-amps, diodes, FETs, and BJTs; single and multi-stage amplifiers; differential amplifiers; feedback; frequency response; and Bode plots. The laboratory component covers generation and acquisition of signals; current, voltage, and impedance measurements; transfer function measurement; and spectrum measurements and analysis. **Prerequisites:** GEEN 2314: Circuits I, EEEN 2111: Circuits I Lab. Completion or concurrent registration for: EEEN 3312: Circuits II

EEEN 3422: Electronics II (3,1) This course is the second of two courses in the use of electronic devices in analog and digital circuits. Its lecture component covers analysis and design of operational amplifier circuits, D/A and A/D conversion, CMOS logic circuits, filters, oscillators and multivibrator circuits, power amplifiers, and pulse and switching circuits. The laboratory component covers the design and analysis of electronic circuits for digital and analog applications to a set of prescribed criteria. **Prerequisite:** EEEN 3421: Electronics I

EEEN 4311: Design Methodology and Project Management (3,0) This course presents an overview of engineering design designed to prepare students for ASSE 4311: Learning Outcome Assessment III, the final capstone course for engineering majors. Its subject matter is the entire product design process including project planning, quality function deployment, design specification, concept generation and selection, system and subsystem design, the role of engineering economics, the profession's codes and standards, and project management. **Prerequisites:** EEEN 3391: Probability and Random Signal Analysis, GEEN 3211: Engineering Economy

EEEN 4331: Microprocessors (2,1) This course presents the development of microprocessor systems with an introduction to assembly language programming. Instruction includes hardware-software interactions, programming techniques, and control of real-time hardware. Through the classes and labs, students are led to integrate knowledge into hands-on design and control applications. **Prerequisite:** EEEN 3331: Digital Systems

EEEN 4341: Communication Systems (2,1) This course presents a study of telecommunications theory and practice. Students develop competency in information theory; signals; systems; and analog modulation; digital data transmission; and error correcting codes. Methods of instruction include lecture, class discussion, and out-of-class assignments. **Prerequisites:** EEEN 3341: Signals and Systems, EEEN 3391: Probability and Ransom Signal Analysis

EEEN 4342: Digital Communication Systems (3,0) This course presents an overview of the field of digital communications. The learning experiences provide students with grounding in the underlying basic theory of digital modulation and coding. Instruction in the course makes use of computer simulation and problem solving to encourage students' ability in practical applications. **Prerequisite:** EEEN 4341: Communication Systems

EEEN 4343: Wireless Communication Systems (3,0) This course constitutes an introduction to wireless communications and networks. Students acquire an understanding of this technology's development and study transmission fundamentals, principles of operation, design, and issues current to the field. **Prerequisites:** EEEN 3361: Electromagnetic Fields and Waves, EEEN 4341: Communication Systems

EEEN 4351: Automatic Control Systems (2,1) This course introduces automatic control systems. The elements of control systems are presented. Students progress through class activities and labs to apply knowledge through analysis and design of systems. The course includes mathematical modeling of systems. **Prerequisite:** EEEN 3312: Electric Circuits II

EEEN 4361: Electric Machinery (2,1) This course addresses the principles of electrical transformers and machinery, their analysis and design. Instruction begins with the basics of magnetic circuits and transformers and progresses through the study of electrical machinery, with an introduction to electrical power systems analysis. **Prerequisites:** EEEN 3312: Electric Circuits II, EEEN 3361: Electromagnetic Fields and Waves

EEEN 4371: Electric Power Systems (3,0) This course presents a study of electrical power systems, their analysis, operation, and design. Students are introduced to the fundamental concepts of the field. The class progresses through consideration of models to modern operations. Students consider issues and real-world problem analysis and solutions. **Prerequisites:** EEEN 4361: Electric Machinery, EEEN 4391: Advanced Applied Mathematics. Concurrent registration in EEEN 4372: Electric Power Transmission and Distribution

EEEN 4372: Electric Power Transmission and Distribution (3,0) This course addresses the principles of electrical power transmission and distribution. It covers analysis and design of overhead and underground transmission lines; electric and magnetic field profiles; medium and low voltage distribution systems; transformer connections; faults and selection of protective equipment. **Prerequisites:** EEEN 3361: Electromagnetic Fields and Waves, EEEN 4391: Advanced Applied Mathematics. Concurrent registration in EEEN 4371: Electric Power Systems

EEEN 4391: Advanced Applied Mathematics (3,0) This course covers engineering applications of ordinary and partial differential equations, Fourier and Laplace transforms, linear algebra; introduction to numerical analysis and complex variables. Mathematical modeling with applications to analysis and design of deterministic engineering systems also are included. **Prerequisites:** MATH 1324: Algebra III, MATH 2332: Differential Equations

General Engineering – GEEN

GEEN 1211: Introduction to Engineering (2,0) This course is an introduction to engineering and engineering design at the freshman level. The disciplines of civil, electrical, and mechanical engineering are defined. A systems approach to engineering design is used to solve open-ended engineering design problems related to civil, electrical, and mechanical engineering. Principles of teaming are emphasized throughout the course in accord with the design problem. **Prerequisite:** None

GEEN 2311: Statics and Dynamics of Rigid Bodies I (3,0) This course involves equilibrium of rigid bodies, resultants of force systems, centroids, and moments of inertia. Kinematics and kinetics of particles and rigid bodies also are covered. **Prerequisites:** PHYS 1421: Physics for Engineers I, MATH 1423: Calculus II

GEEN 2312: Introduction to Computing (3,0) This course is an introduction to computer systems, problem solving methods and algorithm development. Structured programming is taught using the programming language C, or C++, and JAVA. It includes designing coding, debugging and documenting programs using techniques of software development cycle. MATLAB, a tool that enables students to solve mathematical problems, is also taught. **Prerequisite:** MATH 1324: Calculus III

GEEN 2313: Thermodynamics I (3,0) This course introduces students to the concepts of heat and energy and how they relate and interact. Mass systems, control volumes, reversible and irreversible processes, open and closed systems, and open and closed cycles are covered. **Prerequisites:** MATH 1324: Calculus III, CHEM 1421: Chemistry for Engineers I, PHYS 1422: Physics for Engineers II

GEEN 2314: Circuits I - Also listed as COEN 2311: Circuits I (2,1) This course covers important theory in DC and AC circuits analysis. Topics include a review of the solution of simultaneous equations; Kirchoff's Current and Voltage Laws; nodal and mesh circuit analysis; superposition; source transformations; Thevenin and Norton Equivalent circuits; ideal op-amps; and RC, RL, and RLC circuits. **Prerequisites:** MATH 1324: Calculus III, PHYS 1422: Physics for Engineers II. Concurrent registration in COEN 2111: Circuits Lab. Completion of or Concurrent registration in MATH 2332: Differential Equations.

GEEN 3211: Engineering Economy (2,0) This course teaches the basic principles and techniques of economic analysis and cost engineering. Applications are made to real engineering problems and processes. The use of economics in evaluating engineering designs is emphasized. **Prerequisite:** GEEN 3311: Introduction to Fluid Mechanics

GEEN 3311: Introduction to Fluid Mechanics (3,0) This course introduces students to the concepts of fluid statics and fluid dynamics. Fluid statics refers to a fluid at rest and the forces which act on the fluid in that state. Fluid dynamics refers to a fluid in motion and the forces that act on the fluid in that state. **Prerequisite:** GEEN 2313: Thermodynamics I

Interior Design – IDES

IDES 1211: Introduction to Interior Design (2,0) This course provides an introduction to the processes of interior design and the various aspects and considerations involved in practice of both residential and commercial design. It exposes the students to interior design as a profession and provides a framework for future courses. **Prerequisite:** None

IDES 1212: Interior Design I (0,2) This course exposes students to interior design as a profession utilizing new skills and knowledge. It introduces the application of principles, elements, processes and vocabulary of Interior Design. **Prerequisite:** Students must be concurrently enrolled in IDES 1211: Introduction to Interior Design.

IDES 1413: Interior Design II (1,3) This course is a continuation of the foundations class sequence begun in IDES 1212: Interior Design I. It continues the introduction to professional skills and to written, graphic, and oral communication through creative projects. **Prerequisites:** IDES 1211: Introduction to Interior Design, IDES 1212: Interior Design I.

IDES 2331: Behavior and the Physical Environment (3,0) This course introduces the students to the basic psychology of designing spaces and places for human occupancy. Concepts introduced provide students with a basic knowledge of crowding, territoriality, attitudes relative to personal space, personality, and the definition of space and privacy as they relate to both residential and non-residential environments. Other concepts include managing limited resources and the design of habitable environments. **Prerequisite:** IDES 1413: Interior Design II

IDES 2332: Materials for Interior Design (3,0) This course covers the technical aspects of surface and structural materials in relation to function and appropriate application in the interior environment. It covers ways in which materials are communicated in design projects including: estimation, specification writing and contract documentation. **Prerequisites:** Successful completion of first year interior design classes, IDES 2411: Interior Design Studio III, IDES 2331: Behavior and the Physical Environment

IDES 2411: Interior Design III–Digital Media, Residential Design (0,4) This course introduces students to the primary digital media required to produce and present professional interior design projects. A residential design project provides the site for students to learn AutoCAD, 3D Studio Viz, Photoshop, In Design and PowerPoint. Students will improve their quick sketching skills and be familiar with Internet resources for 3D models of furniture, objects and images. **Prerequisite:** IDES 1413: Interior Design II

IDES 2412: Interior Design IV–Digital Media, Non-Residential Design (1,3) This course expands knowledge and use of the primary digital media required for production and presentation of professional interior design projects. A small scale non-residential design project (such as an art gallery, boutique, or café) provides the site for students to further their skills in AutoCAD, 3D StudioViz, Photoshop, Indesign and PowerPoint. In addition, students are introduced to Lightscape and animation. Students continue to improve their quick sketching skills. **Prerequisites:** IDES 2411: Interior Design III: Digital Media, Residential Design

IDES 3321: Interior Building Systems I (3,0) This course covers standard interior building systems including partitions, ceilings, floors, and stairs. Students learn about glazing, woodwork, hardware, structural coordination, barrier free design, means of egress and the international building code. **Prerequisite:** Third year standing in the interior design program

IDES 3322: Interior Building Systems II (3,0) This course covers standard interior building systems including heating, ventilation, air conditioning, plumbing, fire protection, and electrical distribution. Students gain more knowledge of the international building code. **Prerequisite:** IDES 3321: Interior Building Systems I

IDES 3331: Interior Lighting (3,0) This course focuses on lighting design for interior spaces. Students gain knowledge of the perception and psychological aspects of light as well as technical information related to current fixture types and appropriate application. **Prerequisite:** IDES 2412: Interior Design IV: Digital Media, Non-residential Design

IDES 3332: Introduction to Furniture Design (1,2) This course covers the basic skills of concept development, three-dimensional fabrication, and presentation techniques appropriate to furniture design and object making for application in the interior environment. **Prerequisite:** Successful completion of the first two years of interior design courses

IDES 3341: History of Furniture, Decoration, and Interior Design I (3,0) This course surveys the evolution of furniture styles, decorative elements and motifs, and interior design. The course is an introduction to the history of furniture design, decoration, and interior design inclusive of the Ancient World period, Classical World period, and Middle Ages. The student explores design choices and critically analyzes existing designs based on historical information. This course prepares students to participate in designing in a broader context. **Prerequisite:** Successful completion of all second-year interior design courses

IDES 3342: History of Furniture, Decoration, and Interior Design II (3,0)

This course continues to survey the history and evolution of furniture styles, decorative elements and motifs, and interior design with a concentration on the East, the Renaissance Period, the New World, and the Modern World. The progression and evolution of furniture styles, decoration, and the design of the interior environment throughout history gives an appreciation for humankind's achievements and aids in understanding current design trends. **Prerequisite:** IDES 3341: History of Furniture, Decoration, IDES 1212: Interior Design I

IDES 3343: Professional Practices for Interior Designers (3,0) This course covers standard practices and procedures of the interior design profession. Students gain knowledge of the history of the profession, ethics, business structures, organization, management, legal issues, fee structures, and promotional activities. **Prerequisite:** Third year standing in the interior design program

IDES 3411: Interior Design V - Office Design (1,3) This course focuses on contemporary approaches to office design projects. In addition to refining students' design skills for non-residential projects, the studio emphasizes research and programming methods. Selection and specification of office system products, finishes, and design of custom millwork balance practical aspects with a concept-driven design solution. **Prerequisite:** Third year standing in the interior design program

IDES 3412: Interior Design Studio VI – Hospitality (1,3) This course will help students develop a restaurant and hotel project that applies research and specific knowledge related to the hospitality industry. The course builds the student's ability to apply acquired interior design knowledge by adding specialized information and skills appropriate in the hospitality industry. **Prerequisite:** Academic standing as a second semester junior

IDES 4337: Sustainable Design (3,0) This course will expand the student's awareness of the relationship between ecology and the built environment. It exposes the student to sustainable design utilizing skills and knowledge obtained in all previous IDES courses. **Prerequisites:** IDES 3414: Interior Design Studio VI-Hospitality, IDES 3322: Interior Building Systems II, IDES 3341: Professional Practices.

IDES 4338: Interior Design Internship (0,3) This course enables students to apply their studio and class experience to practical use in a work-world apprentice situation. Students have the opportunity to seek design employment in the surrounding geographic area or in the PMU Community Design Center. **Prerequisites:** Academic standing as a second semester senior. Concurrent registration in ASSE 4311: Learning Outcome Assessment III

IDES 4425: Interior Design VII-Healthcare Design (1,3) This course focuses on the interior design of healthcare facilities. The emphasis is placed on special needs populations including the cognitively and mentally impaired, geriatric populations, and children. In consultation with the instructor, the student design team selects a special population to research. At completion of research, the student team provides programming, pre-design documents, and a final design presentation. **Prerequisite:** Academic standing as a first semester senior

Mechanical Engineering – MEEN

MEEN 2211: Materials Engineering 2 (2,0) This course examines the relationships between material structure and the mechanical, electrical, magnetic, thermal, and optical properties of materials. The macroscopic properties of materials are discussed in relation to the microscopic properties. **Prerequisites:** CHEM 1421: Chemistry for Engineers I, PHYS 1421: Physics for Engineers I, MATH 1324: Calculus III

MEEN 2312: Statics and Dynamics of Rigid Bodies II (3,0) This course is a continuation of GEEN 2311: Statics and Dynamics I, covering topics including moments of inertia for areas, principles of work and energy, angular momentum, planar kinematics, and vibrations normally covered in a traditional two-course sequence of Statics and Dynamics. **Prerequisites:** GEEN 2311: Statics and Dynamics I, MATH 1324: Calculus III

MEEN 2313: Mechanics of Solids (3,0) This course covers applications of conservation principles and stress/deformation relationships to solid bodies. It draws upon the principles from Statics and Dynamics I, physics, and mathematics courses. **Prerequisites:** GEEN 2311: Statics and Dynamics of Rigid Bodies, MATH 1324: Calculus III

MEEN 3211: Introduction to Manufacturing Systems (2,0) This course introduces mechanical engineering majors to modern manufacturing processes and their integration into a total manufacturing system. The course covers modern manufacturing processes including computer application in manufacturing, flexible manufacturing systems, and robotics, as they apply to the various manufacturing options. **Prerequisites:** MEEN 2211: Materials Engineering, GEEN 2312: Introduction to Computing

MEEN 3212: Manufacturing Methods in Design (2,0) This course builds on materials science and introductory coursework in manufacturing processes to focus on materials selection and alteration of materials properties. It provides a special emphasis on design and manufacturability. **Prerequisites:** MEEN 2211: Materials Engineering and MEEN 3211: Introduction to Manufacturing Systems. Concurrent registration in MEEN 2313: Mechanics of Solids

MEEN 3322: Thermodynamics II (3,0) This course continues the introduction to concepts of thermodynamics begun in GEEN 2313: Thermodynamics I. Topics cover thermodynamic cycles including power, propulsion, and refrigeration cycles and associated machinery. **Prerequisites:** GEEN 2313: Thermodynamics I. Concurrent registration in GEEN 3311: Introduction to Fluid Mechanics

MEEN 3332: Computational Methods (3,0) In this course, students acquire knowledge about tools that are available for analysis of engineering problems, and they learn to apply these tools effectively. Topics include Taylor series, numerical integration and differentiation, non-linear algebraic equations; boundary value problems; finite difference solutions; and finite element solutions of ordinary differential equations. **Prerequisites:** GEEN 2312: Introduction to Computing, MATH 2332: Differential Equations

MEEN 3333: Heat Transfer (3,0) This course introduces the concepts of heat transfer, including conduction, convection, and radiation. Students learn to solve problems concerning transfer across solid surfaces, heat transfer through moving and stationary fluids, and heat transfer through space. **Prerequisites:** GEEN 2313: Thermodynamics I, GEEN 3311: Introduction to Fluid Mechanics

MEEN 3391: Mechanical Engineering Design I (3,0) This course is the first course in the Mechanical Engineering design sequence. It introduces students to the concepts of design and the design process. An additional focus is on kinematics, linkages, and an introduction to mechanisms. **Prerequisites:** MEEN 2312: Statics and Dynamics II, MATH 2332: Differential Equations

MEEN 3392: Mechanical Engineering Design II (3,0) This course is the second course in the mechanical engineering design sequence. It introduces students to the concepts of the control of dynamical systems. In this course, students learn to solve control problems for both steady-state and transient responses. The student is expected to have a thorough understanding of Design 1. **Prerequisites:** MEEN 3332: Computational Methods, MEEN 3391: Engineering Design I

MEEN 3393: Mechanical Engineering Design III (3,0) This course is the third course in the mechanical engineering design sequence. It introduces students to the concepts of mechanical strength and reliability in the design of machine components. Stress, reliability, and failure analysis are considered. **Prerequisites:** MEEN 3392: Mechanical Engineering Design II, MEEN 3332: Computational Methods, MEEN 2313: Mechanics of Solids

MEEN 4301: Mechanical Engineering Lab I (1,2) This laboratory course introduces students to the concepts of engineering measurement and experimentation in the thermal sciences. It develops physical understanding through experimentation as students analyze raw data and organize the results into a comprehensive lab report. **Prerequisites:** GEEN 3311: Introduction to Fluid Mechanics, MEEN 3322: Thermodynamics II, MEEN 3333: Heat Transfer

MEEN 4302: Mechanical Engineering Lab II (1,2) This laboratory course introduces students to the concepts of engineering measurement and experimentation in mechanics, mechanisms, and controls. Students are exposed to experiments and techniques in the various areas as they develop physical understanding through experimentation. **Prerequisites:** MEEN 2313: Mechanics of Solids, MEEN 3393: Engineering Design III

MEEN 4311: Principles of Heating, Ventilating, and Air Conditioning (HVAC) (3,0) This course is an application of thermodynamics, fluid mechanics, and heat transfer to the design and selection of HVAC equipment. It covers psychometrics, thermodynamic cycles, HVAC components, and piping and duct layouts, pumps, and fans in a lecture format. **Prerequisites:** GEEN 3311: Introduction to Fluid Mechanics, MEEN 3322: Thermodynamics II, MEEN 3333: Heat Transfer

MEEN 4312: Fluid Mechanics (3,0) This course introduces students to additional topics in fluid dynamics. Piping systems are studied in series and in parallel. Boundary layers and bluff body flows are studied to determine how to calculate drag and lift on smooth and bluff bodies. Flow through fluid machinery is studied to learn the fundamentals of the design of fluid machinery. Compressible flow is studied to learn the effects of compressibility on fluid flow. **Prerequisites:** GEEN 3311: Introduction to Fluid Mechanics, MEEN 3322: Thermodynamics II

MEEN 4315: Principles of Building Energy Analysis (3,0) This course uses current ASHRAE building load calculation methods to analyze building energy use. Both the heat balance (HB) and radiant time series (RTS) methods are used to calculate building loads. The course uses competencies from thermodynamics, heat transfer, and mathematics courses, and complements the MEEN 4311: Principles of HVAC course. Either the building energy analysis course or the HVAC course may be taken first. **Prerequisites:** MEEN 3322: Thermodynamics II, MEEN 3333: Heat Transfer

MEEN 4322: Power Generation (3,0) This course provides a broad knowledge of systems in modern power plants and is an application of engineering sciences, principally thermodynamics and fluid mechanics. The energy conversion process is emphasized, with concentration on gas turbine combined cycle plants and traditional oil or gas-fired power generation.

Prerequisites: GEEN 3311: Introduction to Fluid Mechanics, MEEN 3322: Thermodynamics II, MEEN 3333: Heat Transfer

MEEN 4331: Internal Combustion Engines (3,0) This course is an application of the thermal sciences applied to internal combustion engines. The thermodynamic engine cycle is reviewed and intake and exhaust processes are covered. Both spark-ignition (the Otto cycle) and compression-ignition (the Diesel cycle) engines are analyzed. **Prerequisites:** MEEN 3322:

Thermodynamics II, MEEN 3333: Heat Transfer

MEEN 4332: Turbomachinery (3,0) This course applies the thermal sciences to the design of pumps, fans, compressors, and turbines. Similarity and scaling laws are developed. Radial and axial flow machines are analyzed. Blade design for both pumps and turbines are considered. Design of centrifugal pumps and axial flow compressors is studied. **Prerequisites:** MEEN 3322:

Thermodynamics II. Concurrent registration in MEEN 3333: Heat Transfer

MEEN 4341: Corrosion Engineering (3,0) This course covers the causes and mechanisms of aqueous corrosion, including electrochemistry and thermodynamics of corrosion. Materials selection and design for minimization of corrosion, as well as corrosion protection are included. Selected case studies are discussed. **Prerequisites:** MEEN 3322: Thermodynamics II, MEEN 2211: Materials Engineering

MEEN 4344: Materials in Design (2,1) This course ties together material selection, properties, and manufacturing processing to support the performance requirements specified by a design. **Prerequisites:** MEEN 3212:

Manufacturing Methods in Design. Concurrent registration in MEEN 3393: Mechanical Engineering Design III

MEEN 4351: Intermediate Dynamics (3,0) This course is a senior elective course for Mechanical Engineering students. The purpose of the course is to have the students develop an understanding of the fundamentals of analytical dynamics and its applications mechanical systems. The student is expected to have a thorough understanding of vectorial mechanics and the dynamics of rigid bodies to be successful in this course. This course is a lecture course; no laboratory is included. **Prerequisites:** MEEN 2312 Statics and Dynamics II, MEEN 3391 Mechanical Design I

MEEN 4392: Advanced Control Systems (3,0) This course covers mathematical modeling, analysis, design, and synthesis of systems, including mechanical, electrical, hydraulic and thermal subsystems. Topics include Newtonian mechanics, multiple degrees of freedom vibrations, and control system design. **Prerequisites:** MEEN 3332: Computational Methods, MEEN 3392: Engineering Design II

COLLEGE OF INFORMATION TECHNOLOGY

COLLEGE OVERVIEW

The College of Information Technology provides the structure and organization for male and female students to successfully pursue degree programs in Information Technology, Computer Science, and Computer Engineering at the undergraduate level.

Vision and Mission

Vision

The College of Information Technology provides a unique and distinguished academic unit that participates in:

- Preparing future Information Technology and Computer Science and Engineering professionals and leaders who can support the emergence of Saudi Arabia as a global IT resource.
- Enriching and developing Information Technology intellectual resources.
- Exploring innovative instructional methodologies and technologies to provide quality preparation of information technology professionals.
- Establishing communication and the exchange of ideas between the academic and business communities

Mission

The College of Information Technology will achieve the following objectives:

- Contribute to advancement of human intelligence and to the promulgation and development of knowledge and understanding in the Information Technology domain.
- Prepare professionals in Information Technology and Computer Science and Engineering, through the utilization of innovative educational processes, in a modern technological environment.
- Transform the graduate to play a pioneering and leading role in the community, enabling him or her to take responsibilities and contribute to solving problems through innovative thinking, collective work, reflection, and self-development.
- Link academic programs and specializations with actual requirements of the surrounding work environment. This will be achieved by maintaining effective partnerships between the university and local business and industry.

- Guide research activities to create solutions for persistent problems in surrounding communities through applied research and technical consultation.
- Provide community service through continuous training and education.

Degrees Offered

The College of Information Technology offers the following degree programs:

Bachelor of Science in Information Technology
 Bachelor of Science in Computer Science
 Bachelor of Science in Computer Engineering

ADMISSIONS PROCESS AND REQUIREMENTS

Admission to the College of Information Technology is open to students who have successfully completed the PMU Preparatory Program or who have met the university criteria for bypassing the program.

The degree programs in the College of Information Technology are designed to accept both male and female students.

Required Courses in the Preparatory Program

The PMU Preparatory Program concentrates on English language, mathematics, and study skills. Within this program, the first semester math course, PRPM 0011: Introductory Algebra, is required of all students. However, during the second semester of mathematics, students have a choice of two tracks, depending on their desired major at the university.

Students seeking entrance to the College of Information Technology are required to take PRPM 0022: Pre-Calculus, during the second semester of the Preparatory Program.

PERFORMANCE EXPECTATIONS

Required Grade Average

The College of Information Technology provides for minimum standards of academic performance from its students. Using a 4.0 scale for course grades, the College of Information Technology requires that students maintain minimum grades of:

- 2.0 in courses from the PMU Core Curriculum
- 2.0 in all degree-specific courses (courses from the Core Curriculum that IT students must complete beyond the minimum requirement)
- 2.25 in all courses required by the college (courses with the GEIT prefix)

- 2.5 in all courses within the academic discipline

A student who receives a D or F in any course is required to repeat the course (in the case of an elective, another elective may be selected) and to achieve the required grade point.

These students will be required to participate in tutoring and remediation programs offered by the college faculty and Learning Resources Center.

Student Computing Requirements

Students within the College of Information Technology are required to have personal laptop computers. They will have access to the university-wide technology-infused environment including wireless Internet access.

Students in the college will have additional specific computing requirements that extend beyond the standard Microsoft Office applications of a typical laptop. They will require access to compilers, design tools, and specialized computing environments.

COMPONENTS OF DEGREE PROGRAMS

The degree programs in the College of Information Technology consist of 128-136 semester credit hours.

Majors in IT, Computer Science, Computer Engineering

Each of the degree programs offered within the College of Information Technology consists of five components.

General Education Requirements: These requirements for the University Core Curriculum and College Core Curriculum include 60 credit hours of courses in PMU core competencies, communication, Arabic Language and Islamic Studies, physical education, mathematics, laboratory science, and social and behavioral sciences.

Degree-Specific Requirements: Each degree program has its own requirements for additional courses from PMU's Core Curriculum in support of the degree program. Those courses will primarily be drawn from mathematics and laboratory science courses. The degree-specific requirements are unique to each degree program.

College of Information Technology Requirements: These requirements will consist of seven courses totaling 22 credit hours that are common to all degree programs within the College of Information Technology. They represent a base of knowledge that is presumed for all IT and computing professionals. The courses within the College of Information Technology that meet these requirements are designated with the prefix GEIT. The courses include the following:

GEIT 1311: Computer Organization
GEIT 1411: Computer Science I
GEIT 1412: Computer Science II
GEIT 2291: Professional Ethics
GEIT 3341: Database Design
GEIT 3351: Software Engineering I
GEIT 4351: Software Engineering II

Degree Program Requirements: Each degree program has unique requirements that differentiate the program from others within the college.

Electives: Each degree program identifies the available electives and any constraints that apply to the elective selection.

Capstone Series

Building on the sophomore and junior level Capstone Series courses required by the PMU Core Curriculum, the college's series is comprised of three courses: GEIT 3351: Software Engineering I, GEIT 4351: Software Engineering II, and ASSE 4311: Learning Outcome Assessment III. Each course in the series centers on a different facet of software engineering.

GEIT 3351: Software Engineering I examines the theory and practice of software development and maintenance with the focus being on the full software development life cycle, including coverage of tools, techniques, principles, and guidelines for software requirements, specification, design and implementation.

GEIT 4351: Software Engineering II focuses on the application of that theory and practice in the design of a solution to a significant software engineering problem. This course will culminate in the development of full design documentation for such a solution.

ASSE 4311: Learning Outcome Assessment III concentrates on the implementation, testing, debugging and maintenance of a designed software engineering solution.

COURSES REQUIRED FOR MAJORS

Information Technology

The Bachelor of Science in Information Technology is comprised of five components:

PMU's Core Curriculum: This core curriculum consists of 60 hours of coursework.

The College of Information Technology Requirements: These requirements consist of 22 hours of coursework contained in the seven college courses

designated with the GEIT prefix.

Degree-Specific Requirements: These requirements represent support courses in mathematics, laboratory science and business. These requirements both specify and extend Core Curriculum requirements. The degree-specific requirements add 7 credit hours to the degree program.

The Information Technology degree program extends PMU's Core Curriculum mathematics requirement from six to nine semester credit hours of mathematics and specifies that the courses will be:

MATH 1311 Finite Mathematics for Business
MATH 1321 Pre-Calculus Mathematics
MATH 1313 Statistical Methods

The Information Technology degree program extends PMU's Core Curriculum requirement in Natural and Physical Sciences from eight to 12 semester credit hours and specifies that the courses will be:

PHYS 1412 Physics for Engineers I
PHYS 1413 Physics for Engineers II
Natural Science elective

The Degree Program Requirements: These requirements consist of 27 hours of coursework as follows:

ITAP 2381: Operations Research
ITAP 2431: Network Management
ITAP 3471: Web Server Management
ITAP 3381: Business Process Redesign
ITAP 3382: Business Intelligence
ITAP 3383: Enterprise Resource Planning Systems
ITAP 3431: Network Security
ITAP 4371: E-Commerce

Electives: The Information Technology degree program requires six semester credit hours from the College of Business Administration including:

A three-hour Management Information Science elective
Any other three-hour course from the College of Business Administration

The Information Technology Degree Program requires three semester credit hours of electives to be taken from an approved list of 3000 level and 4000 level courses within the College of Information Technology. The course GEIT 4361: Practical Training also may be taken as an elective.

Computer Science

The Bachelor of Science in Computer Science is comprised of four components:

PMU's Core Curriculum: This core curriculum consists of 60 hours of coursework.

The College of Information Technology Requirements: These requirements consist of 22 hours of coursework contained in the seven college courses designated with the GEIT prefix.

Degree-Specific Requirements: These requirements represent support courses in mathematics, laboratory science and business. These requirements both specify and extend Core Curriculum requirements. The degree-specific requirements add 12 credit hours to the degree program.

The Computer Science degree program extends the PMU's Core Curriculum mathematics requirement from six to 17 semester credit hours and specifies that the courses will be:

MATH 1432: Calculus I
MATH 1433: Calculus II
MATH 1313: Statistical Methods
MATH 2331: Linear Algebra
MATH 2332: Differential Equations

The Computer Science degree program extends PMU's Core Curriculum requirement in Natural and Physical Sciences from eight to 12 semester credit hours and specifies that the courses will be:

PHYS 1412: Physics for Engineers I
PHYS 1413: Physics for Engineers II
Natural Science elective

The Degree Program Requirements: These requirements consist of 30 hours of coursework as follows.

COSC 2331: Discrete Structures
COSC 3343: Database Theory
COSC 3351: Algorithms
COSC 3411: System Programming
COSC 3421: Data Structures
COSC 4361: Operating Systems
COSC 4362: Artificial Intelligence
COSC 4363: Automata Theory
COSC 4461: Programming Languages

Electives: The Computer Science Degree Program requires six to eight semester credit hours of elective to be taken from an approved list of 4000 level courses within the College of Information Technology. The course GEIT 4361: Practical Training also may be taken as an elective.

Computer Engineering

The Bachelor of Science in Computer Engineering is comprised of five components:

PMU's Core Curriculum: This core curriculum consists of 60 hours of coursework.

Degree Specific Requirements: These requirements represent support courses in mathematics, laboratory science and business. These requirements both specify and extend Core Curriculum requirements. The degree-specific requirements add 15 credit hours to the degree program.

The Computer Science degree program extends PMU's Core Curriculum mathematics requirement from six semester credit hours to 17 hours and specifies that the courses be:

MATH 1422: Calculus I
MATH 1423: Calculus II
MATH 1324: Calculus III
MATH 2332: Differential Equations
MATH 2331: Linear Algebra

The Computer Science degree program extends PMU's Core Curriculum Natural and Physical Sciences requirement from eight to 12 hours and specifies that the courses be:

PHYS 1421: Physics for Engineers I
PHYS 1422: Physics for Engineers II
Natural Science elective

The College of Information Technology Requirements: These requirements consist of 22 hours of coursework contained in the seven college courses designated with the GEIT prefix.

The Degree Program Requirements: These requirements consist of 28 hours of coursework as identified below.

COEN 2311: Circuits I*
COEN 2111: Circuits I Lab
COEN 3421: Electronics I*
COEN 3323: Digital Systems*
COEN 3312 : Circuits II*

COEN 3322: Signals and Systems*
 COEN 4322: Digital Signal Processing
 ITAP 3431: Network Security
 ITAP 2431: Network Management

**Courses cross-listed with the General Engineering and Electrical Engineering curriculum*

Electives: The Computer Science Degree Program requires six to eight semester credit hours of electives to be taken from an approved list of 4000 level courses within the College of Information Technology. The course GEIT 4361: Practical Training also may be taken as an elective.

COURSE SEQUENCE FOR MAJORS

Information Technology

Total Semester Credit Hours: 128

Freshman Program

| <i>First Semester</i> | <i>Hours</i> |
|--|--------------|
| ALIS 1211: Arabic Language / Islamic Studies..... | 2 |
| COMM 2311: Oral Communications..... | 3 |
| COMM 1311: Written Communication | 3 |
| UNIV 1211: Professional Development and Competencies | 2 |
| MATH 1311: Finite Mathematics for Students of Business | 3 |
| PHYS 1421: Physics for Engineers I | 4 |
| GEIT 1411: Computer Science I..... | 4 |
| Total Hours:..... | 21 |

| <i>Second Semester</i> | <i>Hours</i> |
|--|--------------|
| ALIS 1212: Arabic Language / Islamic Studies..... | 2 |
| PHED 1111: Physical Education..... | 1 |
| COMM 1312: Writing and Research | 3 |
| UNIV 1212: Critical Thinking and Problem Solving | 2 |
| MATH 1321: Pre-Calculus Mathematics..... | 3 |
| PHYS 1422: Physics for Engineers II | 4 |
| GEIT 1412: Computer Science II..... | 4 |
| Total Hours:..... | 19 |

Sophomore Program

| <i>First Semester</i> | <i>Hours</i> |
|---|--------------|
| ALIS 2211: Arabic Language / Islamic Studies..... | 2 |
| ASSE 2111: Learning Outcome Assessment I..... | 1 |
| PHED 1112: Physical Education..... | 1 |
| UNIV 1213: Leadership and Teamwork..... | 2 |
| MATH 1312: Calculus for Students of Business..... | 3 |
| MATH 1313: Statistical Methods..... | 3 |
| GEIT 2291: Professional Ethics in IT..... | 2 |
| Total Hours:..... | 14 |

| <i>Second Semester</i> | <i>Hours</i> |
|---|--------------|
| ALIS 2212: Arabic Language / Islamic Studies..... | 2 |
| COMM 2312: Technical and Professional Communications..... | 3 |
| GEIT 1311: Computer Organization I..... | 3 |
| ITAP 2431: Network Management..... | 4 |
| ITAP 2381: Operations Research..... | 3 |
| Social Science Elective*..... | 3 |
| Total Hours:..... | 18 |

**Select any Social Science course from the College Core Curriculum.*

Junior Program

| <i>First Semester</i> | <i>Hours</i> |
|--|--------------|
| ALIS 3211: Arabic Language / Islamic Studies..... | 2 |
| ASSE 3211: Learning Outcome Assessment II..... | 2 |
| GEIT 3341: Database Design..... | 3 |
| ITAP 3471: Web Server Management..... | 4 |
| ITAP 3383: Enterprise Resource Planning Systems..... | 3 |
| Total Hours:..... | 14 |

| <i>Second Semester</i> | <i>Hours</i> |
|---|--------------|
| ALIS 3212: Arabic Language / Islamic Studies..... | 2 |
| GEIT 3351: Software Engineering I..... | 3 |
| ITAP 3382: Business Intelligence..... | 3 |
| ITAP 3431: Network Security..... | 4 |
| ITAP 3381: Business Process Redesign..... | 3 |
| Total Hours:..... | 15 |

Senior Program

| <i>First Semester</i> | <i>Hours</i> |
|---|--------------|
| ALIS 4211: Arabic Language / Islamic Studies..... | 2 |
| GEIT 4351: Software Engineering II | 3 |
| ITAP 4371: e-Commerce | 3 |
| IT Elective* | 3 |
| Natural Science Elective** | 4 |
| Total Hours:..... | 15 |

**Elective should be selected from COEN 4331: Network Theory, COSC 3343: Database Theory, GEIT 4361: Practical Training, ITAP 4341: Database Management, or ITAP 4372: e-Collaboration*

***Select any Natural Science course from the College Core Curriculum except Introductory Physics*

| <i>Second Semester</i> | <i>Hours</i> |
|---|--------------|
| ASSE 4311: Learning Outcome Assessment III (Capstone) | 3 |
| MIS Elective* | 3 |
| Business Elective* | 3 |
| Social Science Elective** | 3 |
| Total Hours:..... | 12 |

**Elective should be 4000-level course.*

***Select any Social Science course from the College Core Curriculum.*

Computer Science

Total Semester Credit Hours: 136

Freshman Program

| <i>First Semester</i> | <i>Hours</i> |
|--|--------------|
| ALIS 1211: Arabic Language / Islamic Studies..... | 2 |
| COMM 2311: Oral Communications..... | 3 |
| COMM 1311: Written Communication | 3 |
| UNIV 1211: Professional Development and Competencies | 2 |
| MATH 1422: Calculus I..... | 4 |
| GEIT 1411: Computer Science I..... | 4 |
| Total Hours:..... | 18 |

| <i>Second Semester</i> | <i>Hours</i> |
|--|--------------|
| ALIS 1212: Arabic Language / Islamic Studies..... | 2 |
| PHED 1111: Physical Education..... | 1 |
| COMM 1312: Writing and Research | 3 |
| UNIV 1212: Critical Thinking and Problem Solving | 2 |

| | |
|---------------------------------------|-----------|
| MATH 1423: Calculus II | 4 |
| GEIT 1412: Computer Science II..... | 4 |
| GEIT 1311: Computer Organization..... | 3 |
| Total Hours:..... | 19 |

Sophomore Program

| <i>First Semester</i> | <i>Hours</i> |
|---|--------------|
| ALIS 2211: Arabic Language / Islamic Studies..... | 2 |
| ASSE 2111: Learning Outcome Assessment I..... | 1 |
| PHED 1112: Physical Education..... | 1 |
| UNIV 1213: Leadership and Teamwork..... | 2 |
| PHYS 1421: Physics for Engineers I | 4 |
| MATH 1313: Statistical Methods | 3 |
| MATH 1324: Calculus III..... | 3 |
| Total Hours:..... | 16 |

| <i>Second Semester</i> | <i>Hours</i> |
|--|--------------|
| ALIS 2212: Arabic Language / Islamic Studies..... | 2 |
| COMM 2312: Technical and Professional Communications | 3 |
| COSC 2331: Discrete Structures..... | 3 |
| PHYS 1422: Physics for Engineers II | 4 |
| GEIT 3341: Database Design..... | 3 |
| Social Science Elective* | 3 |
| Total Hours:..... | 18 |

**Select any Social Science course from the College Core Curriculum.*

Junior Program

| <i>First Semester</i> | <i>Hours</i> |
|---|--------------|
| ALIS 3211: Arabic Language / Islamic Studies..... | 2 |
| ASSE 3211: Learning Outcome Assessment II | 2 |
| MATH 2332: Linear Algebra..... | 3 |
| COSC 3411: System Programming..... | 4 |
| COSC 3421: Data Structures..... | 4 |
| GEIT 2291: Professional Ethics..... | 2 |
| Total Hours:..... | 17 |

| <i>Second Semester</i> | <i>Hours</i> |
|---|--------------|
| ALIS 3212: Arabic Language / Islamic Studies..... | 2 |
| GEIT 3351: Software Engineering I | 3 |
| COSC 3343: Database Theory | 3 |
| COSC 3351: Algorithms | 3 |
| MATH 2332: Differential equations..... | 3 |
| Natural Science Elective* | 4 |

Total Hours:..... 18

**Select any Natural Science course from the College Core Curriculum.*

Senior Program

| <i>First Semester</i> | <i>Hours</i> |
|---|--------------|
| ALIS 4211: Arabic Language / Islamic Studies..... | 2 |
| GEIT 4351: Software Engineering II..... | 3 |
| COSC 4361: Operating Systems..... | 3 |
| COSC 4461: Programming Languages..... | 4 |
| IT Elective*..... | 3 |
| Total Hours:..... | 15 |

**Select any course from COEN 4331: Network Theory, COSC 4311: Parallel Computing, COCS 4364: Compilers, ITAP 4341: Database Management, ITAP 4372: e-Collaboration, or GEIT 4361: Practical Training.*

| <i>Second Semester</i> | <i>Hours</i> |
|--|--------------|
| ASSE 4311: Learning Outcome Assessment III (Capstone)..... | 3 |
| COSC 4362: Artificial Intelligence..... | 3 |
| COSC 4363: Automata Theory..... | 3 |
| Social Science Elective**..... | 3 |
| IT Elective*..... | 3 |
| Total Hours:..... | 15 |

**Select any course from COEN 4331: Network Theory, COSC 4311: Parallel Computing, COCS 4364: Compilers, ITAP 4341: Database Management, ITAP 4372: e-Collaboration, or GEIT 4361: Practical Training.*

***Select any Social Science course from the College Core Curriculum.*

Computer Engineering

Total Hours: 134

Freshman Program

| <i>First Semester</i> | <i>Hours</i> |
|---|--------------|
| ALIS 1211: Arabic Language / Islamic Studies..... | 2 |
| COMM 2311: Oral Communications..... | 3 |
| COMM 1311: Written Communication..... | 3 |
| UNIV 1211: Professional Development and Competencies..... | 2 |
| MATH 1422: Calculus I..... | 4 |
| GEIT 1411: Computer Science I..... | 4 |
| Total Hours:..... | 18 |

| <i>Second Semester</i> | <i>Hours</i> |
|--|--------------|
| ALIS 1212: Arabic Language / Islamic Studies..... | 2 |
| PHED 1111: Physical Education..... | 1 |
| COMM 1312: Writing and Research | 3 |
| UNIV 1212: Critical Thinking and Problem Solving | 2 |
| PHYS 1421: Physics for Engineers I | 4 |
| MATH 1423: Calculus II | 4 |
| GEIT 1412: Computer Science II..... | 4 |
| Total Hours:..... | 20 |

Sophomore Program

| <i>First Semester</i> | <i>Hours</i> |
|---|--------------|
| ALIS 2211: Arabic Language / Islamic Studies..... | 2 |
| ASSE 2111: Learning Outcome Assessment | 1 |
| PHED 1112: Physical Education..... | 1 |
| UNIV 1213: Leadership and Teamwork..... | 2 |
| MATH 1324: Calculus III | 3 |
| GEIT 2291: Professional Ethics | 2 |
| PHYS 1422: Physics for Engineers II..... | 4 |
| Total Hours:..... | 15 |

| <i>Second Semester</i> | <i>Hours</i> |
|--|--------------|
| ALIS 2212: Arabic Language / Islamic Studies..... | 2 |
| COMM 2312: Technical and Professional Communications | 3 |
| COEN 2311: Circuits I..... | 3 |
| COEN 2111: Circuits Lab..... | 1 |
| GEIT 1311: Computer Organization..... | 3 |
| MATH 2332: Differential Equations | 3 |
| Social Science Elective* | 3 |
| Total Hours:..... | 18 |

**Select any Social Science course from the College Core Curriculum.*

Junior Program

| <i>First Semester</i> | <i>Hours</i> |
|---|--------------|
| ALIS 3211: Arabic Language / Islamic Studies..... | 2 |
| ASSE 3211: Learning Outcome Assessment II | 2 |
| COEN 3323: Digital Systems | 3 |
| GEIT 3341: Database Design..... | 3 |
| COEN 3312: Circuits II..... | 3 |
| COEN 3421: Electronics I..... | 4 |
| Total Hours:..... | 17 |

| <i>Second Semester</i> | <i>Hours</i> |
|---|--------------|
| ALIS 3212: Arabic Language / Islamic Studies..... | 2 |
| GEIT 3351: Software Engineering I | 3 |
| COEN 3322: Signals and Systems | 3 |
| MATH 2331: Linear Algebra..... | 3 |
| ITAP 2431: Network Management..... | 4 |
| Lab Science Elective* | 4 |
| Total Hours:..... | 19 |

**Select any Chemistry or Biology course from the College Core Curriculum.*

Senior Program

| <i>First Semester</i> | <i>Hours</i> |
|---|--------------|
| ALIS 4211: Arabic Language / Islamic Studies..... | 2 |
| GEIT 4351: Software Engineering II | 3 |
| ITAP 3431: Network Security..... | 4 |
| COEN 4322: Digital Signal Processing | 3 |
| EE or IT Elective* | 3 |
| Total Hours:..... | 15 |

**Select any 4000-level course from Electrical Engineering or Information Technology*

| <i>Second Semester</i> | <i>Hours</i> |
|---|--------------|
| ASSE 4311: Learning Outcome Assessment III (Capstone) | 3 |
| EE or IT Elective* | 3 |
| EE or IT Elective* | 3 |
| Social Science Elective** | 3 |
| Total Hours:..... | 12 |

**Select any 4000-level course from Electrical Engineering or Information Technology*

***Select any Social Science course from the College Core Curriculum.*

UNDERGRADUATE COURSES OFFERED BY THE COLLEGE OF INFORMATION TECHNOLOGY

Assessment – ASSE

ASSE 4311: Learning Outcome Assessment III (3,0) This is the capstone course required of all students pursuing an undergraduate degree program within the College of Information Technology. The objective of this course is to bring together in an applied manner the knowledge and skills obtained by the students throughout their undergraduate program. The course is designed to cover topics that are relevant from an integrated IT systems design and implementation perspective. The term “integrated IT systems design and implementation” refers to complex collaborative efforts that bring together knowledge skills in the related areas of computer science, computer engineering, and information technology (as covered by the three undergraduate programs offered by the College of Information Technology). The course's emphasis is on application. One of its main components is a team project focusing on integrated IT systems design and implementation. The course also includes a mix of speakers' presentations, project work, and discussions on contemporary articles from industry publications. **Prerequisites:** GEIT 1411: Computer Science I, GEIT 1412: Computer Science II, GEIT 1311: Computer Organization I, GEIT2291: Professional Ethics, GEIT 3341: Database Design, GEIT 3351: Software Engineering I, GEIT 4351: Software Engineering II.

Computer Engineering – COEN

COEN 2111: Circuits I Lab (0,1) - Also listed as EEEN 2111: Circuits I (0,3) This course covers experimental aspects of the topics covered in COEN 2311: Circuits I. Topics include basic bread-boarding techniques and circuit construction; use of multi-meters, oscilloscopes, power supplies, and function generators; DC and AC voltage and current measurement techniques; troubleshooting techniques; and comparison of experimental and simulated circuits. **Prerequisites:** MATH 1324: Calculus III, PHYS 1422: Physics for Engineers II. Completion of or concurrent registration for: MATH 2332: Differential Equations, COEN 2331: Circuits I

COEN 2311: Circuits I - Also listed as GEEN 2314: Circuits I (2,1) This course covers important theory in DC and AC circuits analysis. Topics include a review of the solution of simultaneous equations; Kirchoff's Current and Voltage Laws; nodal and mesh circuit analysis; superposition; source transformations; Thevenin and Norton Equivalent circuits; ideal op-amps; and

RC, RL, and RLC circuits. **Prerequisites:** MATH 1324: Calculus III, PHYS 1422: Physics for Engineers II. Concurrent registration for: COEN 2111: Circuits Lab. Completion of or concurrent registration for: MATH 2332: Differential Equations

COEN 3312: Circuits II - Also listed as EEEN 3312: Circuits II (2,1) This course is a continuation of COEN 2311: Circuits I. Topics include a review of DC and AC circuit analysis techniques; complex numbers and phasors; use of phasors in the analysis of AC circuits; AC power concepts; polyphase circuits; magnetically coupled circuits; applications of Laplace and Fourier transforms in circuit analysis; s-domain circuit analysis; Bode plots; and filters. **Prerequisites:** MATH 2332: Differential Equations, COEN 2311: Circuits I, COEN 2111: Circuits I Lab

COEN 3322: Signals and Systems - Also listed as EEEN 3341: Signals and Systems (3,0) This course presents instruction in electrical signals and systems. Subject matter includes types of signals and systems, signal and system modeling, Fourier Series, Fourier Transform and applications, Laplace Transform and applications, state variable techniques, discrete time signals and systems. **Prerequisite:** COEN 3312: Circuits II

COEN 3323: Digital Systems - Also listed as EEEN 3331: Digital Systems (2,1) This course addresses the understanding and design of digital systems. Topics progress through Boolean algebra and logic gates; combinational logic; sequential logic and synchronous sequential logic systems; and design of logic circuits. **Prerequisites:** COEN 2311: Circuits I, COEN 2111: Circuits I Lab

COEN 3421: Electronics I - Also listed as EEEN 3421: Electronics I (3,1) This course is the first of two courses in the use of electronic devices in analog and digital circuits. The lecture component covers device physics and modeling of op-amps, diodes, FETs, and BJTs; single and multi-stage amplifiers; differential amplifiers; feedback; frequency response; Bode plots. Laboratory component covers generation and acquisition of signals; current, voltage, and impedance measurements; transfer function measurement; and spectrum measurements and analysis. **Prerequisites:** COEN 2311: Circuits I, COEN 2111: Circuits I Lab. Completion of concurrent registration for: COEN 3312: Circuits II

COEN 4322: Digital Signal Processing (2,1) This course presents an overview of the nature of signals, the algorithms and techniques used to process those signals and the applications to which digital signal processing can be usefully put. **Prerequisite:** COEN 3322: Signals and Systems

COEN 4331: Network Theory (3,0) This course examines the structural and theoretical issues underlying networks. Data communication principles and protocols, network structures and open systems are discussed. **Prerequisite:**

ITAP 2431: Network Management

Computer Science – COSC

COSC 2331: Discrete Structures (3,0) This course is the study of objects that have discrete as opposed to continuous values including the foundations of logic, algorithms and their complexity, mathematical reasoning, relations, graphs, trees and combinatorics. **Prerequisite:** MATH 1423: Calculus II

COSC 3343: Database Theory (3,0) This course is the study of the principles of database systems. The goal is to introduce the theories as well as practices of database management systems. **Prerequisites:** GEIT 1412: Computer Science II, MATH 1313: Statistical Methods

COSC 3351: Algorithms (3,0) This course is the study of the design and performance analysis of algorithms. Time and space complexity analysis of algorithms, design paradigms, and graph algorithms are discussed. **Prerequisites:** COSC 3421: Data Structures, MATH 1313: Statistical Methods

COSC 3411: Systems Programming (3,1) This course is the study of the basic programming principles and skills for building systems software, including the introduction to UNIX, shell programming, and Perl programming. **Prerequisites:** GEIT 1412: Computer Science II, GEIT 1311: Computer Organization

COSC 3421: Data Structures (3,1) This course is the systematic study of some advanced data structures, including list, stack, queue, dictionary, and graph. Sorting and hashing algorithms and their associated computational costs are discussed. Algorithm analysis techniques are also investigated to provide a metric to measure the performance of an algorithm in question. **Prerequisites:** GEIT 1412: Computer Science II, MATH 1313: Statistical Methods, Concurrent registration of MATH 2331: Linear Algebra

COSC 4311: Parallel Computing (3,0) This course provides a basic, in-depth look at techniques for the design and analysis of parallel algorithms and for programming them on commercially available parallel platforms. Principles of parallel algorithms design and different parallel programming models are both discussed. MPI, POSIX threads, and Open MP all are discussed. This course is for anyone wanting to gain proficiency in all aspects of parallel and distributed programming. **Prerequisite:** COSC 3351: Algorithms

COSC 4361: Operating Systems (3,0) This course is the study of the principles, purposes, and organization of operating systems. The goal is to introduce the theories as well as practices of the design and implementation of operating systems software. **Prerequisites:** GEIT 1311: Computer Organization, COSC 3411: System Programming, COSC 3421: Data Structures

COSC 4362: Artificial Intelligence (3,0) This course presents an overview of artificial intelligence and its methods for solving problems. Basic algorithms for finding solutions to problems or adaptively improving responses to situations are discussed. Expert systems, genetic algorithms, and intelligent agents are among the areas that are explored. **Prerequisites:** COSC 3421: Data Structures, COSC 3351: Algorithms.

COSC 4363: Automata Theory (3,0) This course gives an introductory study of automata, formal languages, and computability, including set theory and countability, finite automata and regular languages, push-down automata and context-free languages, Turing machines, Church's thesis, halting problem, and uncomputability. **Prerequisites:** COSC 3351: Algorithms, MATH 2331: Linear Algebra, MATH 2332: Differential Equations

COSC 4364: Compilers (3,0) This course is the study of the theory and practice of constructing a compiler, including lexical analysis, parsing, semantic analysis, run-time organization, code generation, and optimization. During the course of the semester, the students complete a significant compiler project. **Prerequisites:** COSC 3351: Algorithms, COSC 4461: Programming Languages

COSC 4461: Programming Languages (3,1) This course studies the basic concepts and constructs underlying the design of the modern programming languages. Various programming paradigms, including object-oriented, functional, logic, and concurrent programming, are discussed. **Prerequisites:** GEIT 1412: Computer Science II, COSC 3411: System Programming

General Information Technology – GEIT

GEIT 1311: Computer Organization (3,0) This course examines the functional components of computer systems. Topics discussed include processors, memory types and hierarchies, buses, I/O, interrupts, etc. with emphasis on how they affect program execution, parameter passing and inter-program communications between programs written in diverse languages. **Prerequisite:** GEIT 1411 - Computer Science I

GEIT 1411: Computer Science I (3,1) The course is an introduction to programming and to the use of algorithms in designing programs. A software engineering approach to developing computer programs is stressed and object-oriented concepts are introduced. The course examines standard control structures, approaches to modularization, and the use of primitive and structured data types. **Prerequisite:** None.

GEIT 1412: Computer Science II (3,1) This course is a continuation and extension of GEIT 1411 Computer Science I. It introduces the student to a

systematic study of basic data structures such as queues, stacks and binary trees including searching and sorting algorithms and their associated computational costs. A software engineering approach to developing computer programs is stressed and object-oriented concepts are emphasized. Reusability of code, effective software development methodologies and good programming practices are significant components of the course. **Prerequisites:** GEIT 1411: Computer Science I.

GEIT 2291: Professional Ethics (2,0) This course is designed to educate students on the impact ethical issues have on the use of information technology in the modern business world. It examines the ethical codes of the professional societies and the philosophical bases of ethical decision-making. Students acquire the foundation that helps them make appropriate decisions when faced with ethical dilemmas and professional conduct in the workplace. **Prerequisite:** None.

GEIT 3341: Database Design (3,0) This course is designed to give students an understanding of key issues related to database design and implementation to support the automation of key business processes in organizations. The course covers topics that are relevant from a database design and implementation perspective; particularly one that involves the provision of online access to data resources to a variety of physically distributed organizational users. It includes a mix of lectures, some of which are conducted in the laboratory, and discussions on contemporary articles from industry publications. **Prerequisites:** GEIT 1411: Computer Science I, GEIT 1412: Computer Science II.

GEIT 3351: Software Engineering I (3,0) This course is designed to provide an introduction to the theory and practice of software development and maintenance. The focus is on the full software development life cycle, including coverage of tools, techniques, principles, and guidelines for software requirements, specification, design and implementation. Particular emphasis is placed on the principles and methods used to develop and validate software requirements. Students are guided toward a better understanding of the various tasks and specialties that contribute to the development of a software product. **Prerequisites:** GEIT 1411: Computer Science I, GEIT 1412: Computer Science II.

GEIT 4351: Software Engineering II (3,0) This course is a continuation and extension of GEIT 3351: Software Engineering I. The objective of this course is to give students an understanding of key issues involved in the design and implementation of computer software to automate business processes in organizations. The course is designed to cover topics that are relevant from a software engineering perspective, with a focus on software design and implementation, and software development project management. This course emphasis is on application. One of its main components is a team project focusing on software design and implementation. **Prerequisites:** GEIT 1411:

Computer Science I, GEIT 1412: Computer Science II, GEIT 3351: Software Engineering I.

GEIT 4361: Practical Training (3,0) This course provides opportunities for students to apply the academic concepts, skills and techniques learned in their coursework to a professional work-oriented setting. The course offers the potential for a one-semester internship with a regional employer or a directed study course providing practical learning experiences that benefit the community. **Prerequisites:** Senior year standing and the consent of the instructor.

Information Technology – ITAP

ITAP 2381: Operations Research (3,0) This course introduces some of the basic concepts in operations research and quantitative analysis. Students gain a working knowledge of operations research techniques that are used extensively in organizations to solve large, structured problems. Coverage includes the use of optimization (linear, integer, and non-linear programming) models, network models, simulation and risk analysis in developing optimal solutions to operational and strategic problems in modern organizations. **Prerequisites:** GEIT 1412: Computer Science II, MATH 1312: Calculus for Students of Business, MATH 1313: Statistical Methods

ITAP 2431: Network Management (3,1) This course introduces students to business data communications and networking concepts, tools and methods. The goal is to prepare students to apply networking tools and methods to the solution of business problems. The course covers the use of basic data communications and networking hardware such as hubs and routers, and of simple programming tools to customize and integrate existing software. It introduces networking, distributed transaction processing, and Web-related concepts. The course also covers concepts for managing distributed storage and connectivity related to data, voice, image, and video. Its specific focus is on Web-based systems. The course includes a mix of lectures, laboratory demonstrations and assignments, and discussions on contemporary articles from industry publications. **Prerequisites:** GEIT 1411: Computer Science I, GEIT 1412: Computer Science II,.

ITAP 3381: Business Process Redesign (3,0) This course gives students an understanding of key issues involved in business process redesign in organizations. The course is designed to cover topics that are relevant from a business process redesign perspective. Some of those topics are more conceptual, such as business process modeling methods, while others are more applied, such as IT-based business process change implementation approaches.

The course includes a mix of lectures and discussions on contemporary articles from industry publications. **Prerequisites:** GEIT 1411: Computer Science I, GEIT 1412: Computer Science II, GEIT 1311: Computer Organization I, GEIT 3341: Database Design.

ITAP 3382: Business Intelligence (3,0) This course gives students an understanding of key issues involved in business intelligence applications in organizations. The course is designed to cover topics that are relevant from a business intelligence perspective. It is oriented toward the provision of online access to aggregate data analysis results to a variety of physically distributed organizational users. It includes a mix of lectures (some of which are conducted in the laboratory) and discussions on contemporary articles from industry publications. **Prerequisites:** GEIT 1411: Computer Science I, GEIT 1412: Computer Science II, GEIT 1311: Computer Organization I, GEIT 3341: Database Design.

ITAP 3383: Enterprise Resource Planning Systems (3,0) This course introduces students to the underlying need for information and business process integration in large organizations. It presents an overview of the functional areas of a business and the processes that support those areas. The emphasis is on the use of advanced information technology for integrating business functions through distributed databases for support of internal business functions. It includes a discussion of the idea behind selection and implementation of enterprise resource planning (ERP) systems. A part of the course is set aside for demonstrations and "hands on" exercises with one of the available ERP software packages. Students use this software to perform some of the processes and tasks to create, track, and communicate enterprise information. **Prerequisites:** GEIT 1411: Computer Science I, GEIT 1412: Computer Science II, Concurrent registration of GEIT 3341: Database Design.

ITAP 3431: Network Security (3,1) This course examines the basic principles, techniques and technologies associated with securing local area networks. Topics covered include security threats, data protection including cryptography and authentication, a review of network security applications and techniques for the management of intruders, malicious software and other internal and external threats to the network. **Prerequisite:** ITAP 2431 Network Management

ITAP 3471: Web Server Management (3,1) This course gives students a comprehensive overview of the tools and techniques needed to successfully administer Web servers. The course is designed to cover topics that are relevant to the role of a Web server administrator. Topics include installation, configuration, and administration of Web servers on common hardware/software platforms. **Prerequisites:** GEIT 1411: Computer Science I, GEIT 1412: Computer Science II, ITAP 2431: Network Management.

ITAP 4311: Database Management (3,0) This course introduces key issues

involved in the management of data resources in organizations. The course is designed to cover topics that are relevant from a data center management perspective; particularly one that involves the provision of online access to data resources to a variety of physically distributed organizational users. It includes a mix of lectures, some of which are conducted in the laboratory, and discussions on contemporary articles from industry publications. **Prerequisites:** GEIT 1411: Computer Science I, GEIT 1412: Computer Science II, GEIT 1311: Computer Organization I, GEIT 3341: Database Design

ITAP 4371: E-Commerce (3,0) This course exposes students to the advanced use of information technology in the design and implementation of Web-based business applications to support e-commerce. The course presents concepts, methodology, and tools for designing, implementing, and managing e-commerce applications in a business-to-business paradigm. **Prerequisites:** GEIT 1411: Computer Science I, GEIT 1412: Computer Science II, GEIT 3341: Database Design, ITAP 3471: Web Server Administration.

ITAP 4372: E-Collaboration (3,0) This course examines key issues involved in using e-collaboration technologies to support teams conducting collaborative tasks in organizations. The course is designed to cover topics that are relevant from an e-collaboration technology implementation and use perspective; particularly one that addresses collaborative tasks conducted by physically distributed organizational users. It includes a mix of lectures, some of which are conducted in the laboratory, and discussions on contemporary articles from industry publications. **Prerequisites:** GEIT 1411: Computer Science I, GEIT 1412: Computer Science II, GEIT 1311: Computer Organization I, GEIT 3341: Database Design

COLLEGE OF BUSINESS ADMINISTRATION

COLLEGE OVERVIEW

The College of Business Administration provides the structure and organization for male and female students to successfully pursue degree programs in accounting, finance, business administration, and management information systems (MIS) at the undergraduate level.

PMU's Executive Master of Business Administration (MBA) program is designed for working professionals who have significant work experience after the undergraduate degree and have advanced to a point in their careers where an understanding of business concepts is essential to job performance and career advancement.

Vision and Mission

Vision

The College of Business Administration provides a unique and distinguished academic unit that:

- Prepares future accounting, business administration, finance, and MIS professionals.
- Enriches and develops business intellectual resources.
- Explores innovative instructional methodologies and technologies to provide the highest quality, most effective preparation of business professionals.
- Establishes communication and exchange of ideas between academic and business society.

Mission

Consistent with PMU's mission, the mission of the College of Business Administration is to provide an environment conducive to the development of future leaders of Saudi Arabia. Graduates of the program have a well-rounded business education and a sound understanding of business functions and tools of analysis, built on a broad general education. The college works closely with the business community to provide graduates with a blend of theory and applications. Specialized areas provide in-depth knowledge for graduates to effectively compete in the global and constantly changing business environment and to be prepared to serve as effective managers.

The mission of the College of Business Administration is to achieve the following objectives:

- Contribute to the advancement of human intelligence and to the promulgation and development of knowledge and understanding in the business domain.

- Prepare professionals in accounting, finance, business administration, and MIS, through the utilization of innovative educational processes, in a modern, global and technological business environment.
- Transform the graduate into a pioneer and leader in the community, enabling him or her to take responsibilities and contribute to solving problems through innovative thinking, collective work, reflection, and self-development.
- Link academic programs and specializations with actual requirements of the surrounding work environment. This will be achieved by maintaining effective participation and cooperation between the university and local business firms.
- Guide research activities to create solutions for persistent problems in surrounding communities, through applied research and technical consultation.
- Provide community service through continuous training and education.

Degrees Offered

The College of Business Administration offers four undergraduate degree programs:

Bachelor of Science in Accounting
 Bachelor of Science in Business Administration
 Bachelor of Science in Finance
 Bachelor of Science in Management Information Systems

Additionally, the College of Business Administration offers the Executive Master of Business Administration degree.

ADMISSIONS PROCESS AND REQUIREMENTS

Admission of undergraduate students to the College of Business Administration is open to students who have successfully completed the PMU Preparatory Program or who have met the university criteria for bypassing the program.

The degree programs in the College of Business Administration are designed to accept both male and female students.

Required Courses in the Preparatory Program

The PMU Preparatory Program concentrates on English language, mathematics, and study skills. Within the program, the first semester mathematics course, PRPM 0011: Introductory Algebra, is required of all students. However, during the second semester of mathematics, students have a choice of two tracks, depending on their desired major at the university.

Students seeking entrance to the College of Business Administration should take PRPM 0012: Intermediate Algebra, during the second semester of the Preparatory Program.

PERFORMANCE EXPECTATIONS

Required Grade Average

Using a 4.0 scale for course grades, the College of Business Administration will require that students maintain minimum grade point averages (GPA) for the various categories of courses consisting of:

- 2.0 in all courses from the PMU Core Curriculum
- 2.0 in all core business courses required by the college
- 2.25 in all courses within the major

Student who receives a D (1.0) or F in any course will be required to repeat the course and to achieve the required grade point score. In the case of an elective, another elective may be selected. These students will be required to participate in tutoring and remediation programs offered by the college faculty and the Learning Resources Center.

Student Computing Requirements

Students within the College of Business Administration are required to have personal laptop computers.

Students majoring in Accounting, Finance, and Business Administration will be able to use their laptop computers for nearly all of the computing work that is course required. Students majoring in MIS will require some additional specialized lab facilities.

The College of Business Administration will provide a limited number of computer laboratory spaces to meet student needs.

COMPONENTS OF DEGREE PROGRAMS

Each degree program in the College of Business Administration consists of 125-128 semester credit hours

Majors in Accounting, Finance, Business Administration, MIS

Each of the degree programs offered within the College of Business Administration consists of four components:

General Education Requirements: The requirements for the University Core Curriculum and College Core Curriculum include 60 credit hours of courses.

University Core Curriculum courses include communications, Arabic Language and Islamic Studies, physical education, mathematics, laboratory science, and social and behavioral sciences.

In addition, the College of Business Administration will require the following courses from their Core Curriculum:

- ECON 1311: Introduction to Macroeconomics
- ECON 1312: Introduction to Microeconomics
- MATH 1311: Finite Mathematics for Students of Business
- MATH 1312: Calculus for Students of Business.

College of Business Administration Core: These requirements consist of courses that are common to all degree programs within the College of Business Administration, and represent a base of knowledge that is consistent from program to program. The 32 semester credits (11 required courses) in the College of Business Administration Core are:

- ACCT 2311: Fundamentals of Financial Accounting
- ACCT 2321: Fundamentals of Managerial Accounting
- BUSI 3311: Legal Environment of Business
- BUSI 3312: Organizational Behavior
- BUSI 3313: Marketing Principles
- BUSI 3321: Operations Management
- BUSI 4261: Entrepreneurship
- BUSI 4351: Internship
- FINA 3311: Financial Management Principles
- MATH 1313: Statistical Methods
- MISY 2311: Introduction to MIS

Degree Program Requirements: Each degree program has unique requirements that differentiate the program from others within the College of Business Administration.

Electives: Each degree program identifies the available electives and any constraints that apply to the elective selection.

Capstone Course

One of the critical components in the degree structure within the College of Business Administration is the combination of a capstone course and an internship program.

Capstone Course: This component builds on the Capstone Series required by the PMU Core Curriculum, which begins in the sophomore year with ASSE 2111: Learning Outcome Assessment I and continues in the junior year with ASSE 3211: Learning Outcome Assessment II. The College of Business Administration's capstone course integrates different functional areas and

business perspectives through ASSE 4311: Learning Outcome Assessment III / Administrative Strategy and Policy.

Internship: Additionally each student is required to participate in an internship program equivalent to one course. The internship gives students hands-on experience in their chosen field of study through work in a local company. It provides the opportunity to apply concepts learned in the classroom, while it gives the business fresh ideas it may apply to a problem or need. Internships also may provide employers with a risk-free chance to try potential employees.

Directed Study Alternative: If it is deemed impossible for the student to participate in an internship, the student may be allowed to take a directed study course. Such a course will be designed to provide practical learning experience under the joint supervision of a faculty member and a practicing manager from a business in the Eastern Province.

COURSES REQUIRED FOR MAJORS

Accounting

The Bachelor of Science in Accounting will be comprised of three components:

PMU's Core Curriculum: This core curriculum consists of 60 hours of coursework.

The College of Business Administration Core Requirements: These requirements consist of 32 hours of coursework contained in nine college courses.

The Accounting Degree Program Requirements: These requirements consist of 36 hours of coursework as follows:

- ACCT 3311: Intermediate Accounting I
- ACCT 3312: Introduction to Accounting Information Systems
- ACCT 3321: Intermediate Accounting II
- ACCT 4311: Auditing and Assurance Services
- ACCT 4321: Accounting for Managerial Planning and Control

Two accounting electives from the following:

- ACCT 4312: Advanced Accounting
- ACCT 4313: Accounting for Governmental and Not-for-Profit Organizations
- ACCT 4314: International Accounting
- FINA 3313: Money and Banking

Two electives from Finance or MIS

One Business elective or BUSI 3341: Advanced Statistical Methods

One advanced Business elective

Finance

The Bachelor of Science in Finance will be comprised of three components:

PMU's Core Curriculum: This core curriculum consists of 60 hours of coursework.

The College of Business Administration Core Requirements: These requirements consists of 32 hours of coursework.

The Finance Degree Program Requirements: These requirements consist of 33 hours of coursework as follows:

- FINA 3312: Financial Institutions
- FINA 3313: Money and Banking
- FINA 3314: Financial Statements Analysis
- FINA 4313: Investments
- FINA 4314: International Finance
- FINA 4315: Security Analysis and Portfolio Management
- ACCT 3311: Intermediate Accounting I

One Finance elective chosen from the following:

- FINA 4312: Advanced Financial Management
- FINA 4316: Capital Budgeting
- FINA 4351: Special Topics in Finance

One Finance or Accounting elective.

One Business elective or BUSI 3341: Advanced Statistical Methods.

One MIS elective (any course)

Business Administration

The Bachelor of Science in Business Administration will be comprised of three components:

PMU's Core Curriculum: This core curriculum consists of 60 hours of coursework.

The College of Business Administration Core Requirements: These requirements consist of 32 hours of coursework.

The Business Administration Area Degree Program Requirements: These

requirements consist of 33 hours of coursework as follows:

BUSI 3322: Supply Chain Management*
BUSI 4311: e-Commerce*
BUSI 4321: International Business*
BUSI 3323: Human Resource Management*

Two Accounting electives

Two Finance electives

Two MIS electives

One Business elective or BUSI 3341: Advanced Statistical Methods

BUSI 3331: Business Negotiations may be substituted for courses marked with an *

MIS

The Bachelor of Science in Management Information Systems is comprised of three components:

The PMU Core Curriculum: This core curriculum consists of 60 hours of coursework.

The College of Business Administration Core: These requirements consist of 32 hours of coursework.

The MIS Degree Program Requirements: These requirements consist of 33 hours of coursework as follows:

MISY 2312: Introductory Programming for Information Systems
MISY 2313: Intermediate Programming for Information Systems
MISY 3311: Database Management for Information Systems
MISY 3312: Introduction to Telecommunications
MISY 4331: Building Electronic Commerce
MISY 3341: Introduction to Information Assurance
MISY 4332: Systems Analysis and Design
MISY 4341: Object Oriented Analysis and Design
MISY 4342: Electronic Commerce Security
and

Two Business electives, one of which may be BUSI 3341: Advanced Statistical Methods

COURSE SEQUENCE FOR MAJORS

Accounting

Total Semester Credit Hours: 128

Freshman Program

| <i>First Semester</i> | <i>Hours</i> |
|--|--------------|
| ALIS 1211: Arabic Language / Islamic Studies..... | 2 |
| COM 2311: Oral Communications | 3 |
| COMM 1311:Written Communication | 3 |
| UNIV 1211: Professional Development and Competencies | 2 |
| MATH 1311: Finite Mathematics for Students of Business | 3 |
| Lab Science Elective* | 4 |
| Total Hours:..... | 17 |

**Select any laboratory science from the College Core Curriculum*

| <i>Second Semester</i> | <i>Hours</i> |
|--|--------------|
| ALIS 1212: Arabic Language / Islamic Studies..... | 2 |
| PHED 1111: Physical Education..... | 1 |
| COMM 1312: Writing and Research | 3 |
| UNIV 1212: Critical Thinking and Problem Solving | 2 |
| MATH 1312: Calculus for Students of Business | 3 |
| Lab Science Elective* | 4 |
| Total Hours:..... | 15 |

**Select any laboratory science from the College Core Curriculum*

Sophomore Program

| <i>First Semester</i> | <i>Hours</i> |
|--|--------------|
| ALIS 2211: Arabic Language / Islamic Studies..... | 2 |
| ASSE 2111: Learning Outcome Assessment I..... | 1 |
| PHED 1112: Physical Education..... | 1 |
| UNIV 1213: Leadership and Teamwork..... | 2 |
| ACCT 2311: Fundamentals of Financial Accounting..... | 3 |
| ECON 1311: Introduction to Macroeconomics* | 3 |
| Total Hours:..... | 12 |

**May be taken either first or second semester.*

| <i>Second Semester</i> | <i>Hours</i> |
|--|--------------|
| ALIS 2212: Arabic Language / Islamic Studies..... | 2 |
| COMM 2312: Technical and Professional Communications | 3 |
| ACCT 2321: Fundamentals of Managerial Accounting | 3 |
| ECON 1312: Introduction to Microeconomics* | 3 |
| MISY 2311: Introduction to MIS..... | 3 |

| | |
|--------------------------------------|-----------|
| MATH 1313: Statistical Methods | 3 |
| Total Hours:..... | 17 |

**May be taken either first or second semester.*

Junior Program

| <i>First Semester</i> | <i>Hours</i> |
|---|--------------|
| ALIS 3211: Arabic Language / Islamic Studies..... | 2 |
| ASSE 3211: Learning Outcome Assessment II | 2 |
| ACCT 3311: Intermediate Accounting I..... | 3 |
| ACCT 3312: Introduction to Accounting Information Systems | 3 |
| FINA 3311: Financial Management Principles..... | 3 |
| Business Elective* | 3 |
| Total Hours:..... | 16 |

**Students planning to take BUSI 3341: Advanced Statistical Methods enroll now. Other students select any 3000-level or 4000-level College of Business Administration elective.*

Second Semester Hours

| | |
|---|-----------|
| ALIS 3212: Arabic Language / Islamic Studies..... | 2 |
| ACCT 3321: Intermediate Accounting II..... | 3 |
| BUSI 3312: Organizational Behavior | 3 |
| FINA 3313: Money and Banking..... | 3 |
| BUSI 3311: Legal Environment of Business | 3 |
| BUSI 3313: Marketing Principles | 3 |
| Total Hours:..... | 17 |

Senior Program

| <i>First Semester</i> | <i>Hours</i> |
|---|--------------|
| ALIS 4211: Arabic Language / Islamic Studies..... | 2 |
| ACCT 4311: Auditing and Assurance Services | 3 |
| BUSI 3321: Operations Management | 3 |
| BUSI 4261: Entrepreneurship | 2 |
| Accounting Elective* | 3 |
| Advanced Business Elective** | 3 |
| Total Hours:..... | 16 |

**Choose from ACCT 4312: Advanced Accounting, ACCT 4313: Accounting for Government and Not-for-Profit Organizations, or ACCT 4314: International Accounting.*

***Elective should be a 3000-level or 4000-level course.*

| <i>Second Semester</i> | <i>Hours</i> |
|---|--------------|
| ASSE 4311: Learning Outcome Assessment III /Administrative Strategy and Policy | 3 |

| | |
|---|-----------|
| ACCT 4321: Accounting for Managerial Planning and Control | 3 |
| BUSI 4351: Internship | 3 |
| Accounting Elective* | 3 |
| Finance or MIS Elective** | 3 |
| Finance or MIS Elective** | 3 |
| Total Hours:..... | 18 |

**Choose from ACCT 4312: Advanced Accounting, ACCT 4313: Accounting for Government and Not-for-Profit Organizations, or ACCT 4314: International Accounting.*

***Elective should be a 3000-level or 4000-level course.*

Finance

Total Semester Credit Hours: 125

Freshman Program

| <i>First Semester</i> | <i>Hours</i> |
|--|--------------|
| ALIS 1211: Arabic Language / Islamic Studies..... | 2 |
| COMM 2311: Oral Communications..... | 3 |
| COMM 1311: Written Communications..... | 3 |
| UNIV 1211: Professional Development and Competencies | 2 |
| MATH 1311: Finite Mathematics for Students of Business | 3 |
| Lab Science Elective* | 4 |
| Total Hours:..... | 17 |

**Select any laboratory science from the College Core Curriculum*

| <i>Second Semester</i> | <i>Hours</i> |
|--|--------------|
| ALIS 1212: Arabic Language / Islamic Studies..... | 2 |
| PHED 1111: Physical Education..... | 1 |
| COMM 1312: Writing and Research | 3 |
| UNIV 1212: Critical Thinking and Problem Solving | 2 |
| MATH 1312: Calculus for Students of Business | 3 |
| Lab Science Elective* | 4 |
| Total Hours:..... | 15 |

**Select any laboratory science from the College Core Curriculum*

Sophomore Program

| <i>First Semester</i> | <i>Hours</i> |
|---|--------------|
| ALIS 2211: Arabic Language / Islamic Studies..... | 2 |
| ASSE 2111: Learning Outcome Assessment I..... | 1 |
| PHED 1112: Physical Education..... | 1 |
| UNIV 1213: Leadership and Teamwork..... | 2 |
| ECON 1311: Introduction to Macroeconomics* | 3 |

| | |
|--|-----------|
| ACCT 2311: Fundamentals of Financial Accounting..... | 3 |
| Total Hours:..... | 12 |

**May be taken either first or second semester*

| <i>Second Semester</i> | <i>Hours</i> |
|---|--------------|
| ALIS 2212: Arabic Language / Islamic Studies..... | 2 |
| COMM 2312: Technical and Professional Communication | 3 |
| ECON 1312: Introduction to Microeconomics* | 3 |
| MATH 1313: Statistical Methods | 3 |
| ACCT 2321: Fundamentals of Managerial Accounting | 3 |
| MISY 2311: Introduction to MIS..... | 3 |
| Total Hours:..... | 17 |

**May be taken either first or second semester*

Junior Program

| <i>First Semester</i> | <i>Hours</i> |
|---|--------------|
| ALIS 3211: Arabic Language / Islamic Studies..... | 2 |
| ASSE 3211: Learning Outcome Assessment II | 2 |
| BUSI 3312: Organizational Behavior | 3 |
| BUSI 3311: Legal Environment of Business | 3 |
| FINA 3311: Financial Management Principles..... | 3 |
| Business Elective*..... | 3 |
| Total Hours:..... | 16 |

**Students planning to take BUSI 3341: Advanced Statistical Methods enroll now. Other students select any 3000- or 4000-level College of Business Administration elective.*

| <i>Second Semester</i> | <i>Hours</i> |
|---|--------------|
| ALIS 3212: Arabic Language / Islamic Studies..... | 2 |
| FINA 3312: Financial Institutions..... | 3 |
| BUSI 3321: Operations Management | 3 |
| FINA 3313: Money and Banking..... | 3 |
| ACCT 3311: Intermediate Accounting I..... | 3 |
| BUSI 3313: Marketing Principles..... | 3 |
| Total Hours:..... | 17 |

Senior Program

| <i>First Semester</i> | <i>Hours</i> |
|---|--------------|
| ALIS 4211: Arabic Language / Islamic Studies..... | 2 |
| FINA 4313: Investments | 3 |
| FINA 3314: Financial Statement Analysis..... | 3 |
| BUSI 4351: Internship | 3 |
| BUSI 43261: Entrepreneurship | 2 |
| MIS Elective..... | 3 |
| Total Hours | 16 |

| <i>Second Semester</i> | <i>Hours</i> |
|--|--------------|
| ASSE 4311: Learning Outcome Assessment III / Administrative Strategy and Policy | 3 |
| FINA 4315: Security Analysis and Portfolio Management | 3 |
| FINA 4314: International Finance | 3 |
| Finance Elective* | 3 |
| Accounting or Finance Elective | 3 |
| Total Hours:..... | 15 |

**Choose from FINA 4312: Advanced Financial Management, FINA 4316: Capital Budgeting, or FINA 4351: Special Topics in Finance.*

Business Administration

Total Semester Credit Hours: 125

Freshman Program

| <i>First Semester</i> | <i>Hours</i> |
|--|--------------|
| ALIS 1211: Arabic Language / Islamic Studies..... | 2 |
| COM 2311: Oral Communications | 3 |
| COMM 1311: Written Communication | 3 |
| UNIV 1211: Professional Development and Competencies | 2 |
| MATH 1311: Finite Mathematics for Students of Business | 3 |
| Lab Science Elective* | 4 |
| Total Hours:..... | 17 |

**Select any laboratory science from the College Core Curriculum.*

| <i>Second Semester</i> | <i>Hours</i> |
|--|--------------|
| ALIS 1212: Arabic Language / Islamic Studies..... | 2 |
| PHED 1111: Physical Education..... | 1 |
| COMM 1312: Writing and Research | 3 |
| UNIV 1212: Critical Thinking and Problem Solving | 2 |
| MATH 1312: Calculus for Students of Business | 3 |
| Lab Science Elective* | 4 |
| Total Hours: | 15 |

**Select any laboratory science from the College Core Curriculum.*

Sophomore Program

| <i>First Semester</i> | <i>Hours</i> |
|--|--------------|
| ALIS 2211: Arabic Language / Islamic Studies..... | 2 |
| ASSE 2111: Learning Outcome Assessment I..... | 1 |
| PHED 1112: Physical Education..... | 1 |
| UNIV 1213: Leadership and Teamwork..... | 2 |
| ECON 1311: Introduction to Macroeconomics*..... | 3 |
| ACCT 2311: Fundamentals of Financial Accounting..... | 3 |
| Total Hours:..... | 12 |

**May be taken either first or second semester.*

| <i>Second Semester</i> | <i>Hours</i> |
|--|--------------|
| ALIS 2212: Arabic Language / Islamic Studies..... | 2 |
| COMM 2312: Technical and Professional Communications | 3 |
| ECON 1312: Introduction to Microeconomics* | 3 |
| ACCT 2321: Fundamentals of Managerial Accounting | 3 |
| BUSI 3311: Legal Environment of Business | 3 |
| MATH 1313: Statistical Methods | 3 |
| Total Hours:..... | 17 |

**May be taken either first or second semester.*

Junior Program

| <i>First Semester</i> | <i>Hours</i> |
|---|--------------|
| ALIS 3211: Arabic Language / Islamic Studies..... | 2 |
| ASSE 3211: Learning Outcome Assessment II | 2 |
| BUSI 3312: Organizational Behavior | 3 |
| FINA 3311: Financial Management Principles..... | 3 |
| MISY 2311: Introduction to MIS..... | 3 |
| Business Elective*..... | 3 |
| Total Hours:..... | 16 |

**Students planning to take BUSI 3341: Advanced Statistical Methods enroll now. Other students select any 3000- or 4000-level College of Business Administration elective.*

| <i>Second Semester</i> | <i>Hours</i> |
|---|--------------|
| ALIS 3212: Arabic Language / Islamic Studies..... | 2 |
| BUSI 3321: Operations Management | 3 |
| BUSI 3313: Marketing Principles | 3 |
| Accounting Elective | 3 |
| Accounting Elective | 3 |
| Finance Elective | 3 |
| Total Hours:..... | 17 |

Senior Program

| <i>First Semester</i> | <i>Hours</i> |
|--|--------------|
| ALIS 4211: Arabic Language / Islamic Studies | 2 |
| ASSE 4311: Learning Outcome Assessment III / Administrative Strategy and Policy | 3 |
| BUSI 3323: Human Resource Management* | 3 |
| BUSI 3322: Supply Chain Management* | 3 |
| BUSI 4261: Entrepreneurship | 2 |
| MIS Elective | 3 |
| Total Hours: | 16 |

**BUSI 3331: Business Negotiations may be substituted for this course.*

| <i>Second Semester</i> | <i>Hours</i> |
|--|--------------|
| BUSI 4321: International Business* | 3 |
| BUSI 4311: e-Commerce* | 3 |
| BUSI 4351: Internship | 3 |
| Finance Elective | 3 |
| MIS Elective | 3 |
| Total Hours: | 15 |

**BUSI 3331: Business Negotiations may be substituted for this course.*

Management Information Systems

Total Semester Credit Hours: 125

Freshman Program

| <i>First Semester</i> | <i>Hours</i> |
|--|--------------|
| ALIS 1211: Arabic Language / Islamic Studies | 2 |
| COMM 2311: Oral Communications | 3 |
| COMM 1311: Written Communication | 3 |
| UNIV 1211: Professional Development and Competencies | 2 |
| MATH 1311: Finite Mathematics for Students of Business | 3 |
| Lab Science Elective* | 4 |
| Total Hours: | 17 |

** Select any laboratory science from the College Core Curriculum*

| <i>Second Semester</i> | <i>Hours</i> |
|---|--------------|
| ALIS 1212: Arabic Language / Islamic Studies | 2 |
| PHED 1111: Physical Education | 1 |
| COMM 1312: Writing and Research..... | 3 |
| UNIV 1212: Critical Thinking and Problem Solving..... | 2 |
| MATH 1312: Calculus for Students of Business..... | 3 |
| Lab Science Elective* | 4 |
| Total Hours: | 15 |

**Select any laboratory science from the College Core Curriculum*

Sophomore Program

| <i>First Semester</i> | <i>Hours</i> |
|--|--------------|
| ALIS 2211: Arabic Language / Islamic Studies | 2 |
| ASSE 2111: Learning Outcome Assessment I | 1 |
| PHED 1112: Physical Education | 1 |
| UNIV 1213: Leadership and Teamwork..... | 2 |
| ECON 1311: Introduction to Macroeconomics* | 3 |
| MISY 2312: Introductory Programming for Information Systems | 3 |
| Total Hours: | 12 |

**May be taken either first or second semester.*

| <i>Second Semester</i> | <i>Hours</i> |
|--|--------------|
| ALIS 2212: Arabic Language / Islamic Studies | 2 |
| COMM 2312: Technical and Professional Communications | 3 |
| MATH 1313: Statistical Methods..... | 3 |
| ECON 1312: Introduction to Microeconomics* | 3 |
| BUSI 3311: Legal Environment of Business..... | 3 |
| MISY 2313: Intermediate Programming for Information Systems | 3 |
| Total Hours: | 17 |

**May be taken either first or second semester.*

Junior Program

| <i>First Semester</i> | <i>Hours</i> |
|---|--------------|
| ALIS 3211: Arabic Language / Islamic Studies | 2 |
| ASSE 3211: Learning Outcome Assessment II..... | 2 |
| MISY 3311: Database Management for Information Systems..... | 3 |
| MISY 3312: Introduction to Telecommunications..... | 3 |
| BUSI 3312: Organizational Behavior | 3 |
| Business Elective* | 3 |
| Total Hours: | 16 |

**Students planning to take BUSI 3341: Advanced Statistical Methods enroll now. Other students select any 3000- or 4000-level College of Business Elective*

Second Semester

| | |
|---|-----------|
| ALIS 3212: Arabic Language / Islamic Studies | 2 |
| ACCT 2311: Fundamentals of Accounting | 3 |
| MISY 3321: Introduction to Information Assurance..... | 3 |
| BUSI 3313: Marketing Principles..... | 3 |
| BUSI 3321: Operations Management..... | 3 |
| MISY 2311: Introduction to MIS | 3 |
| Total Hours: | 17 |

Senior Program

| <i>First Semester</i> | <i>Hours</i> |
|--|--------------|
| ALIS 4211: Arabic Language / Islamic Studies | 2 |
| ACCT 2321: Fundamentals of Managerial Accounting | 3 |
| BUSI 4351: Internship | 3 |
| BUSI 4261: Entrepreneurship..... | 2 |
| MISY 4331: Building Electronic Commerce | 3 |
| MISY 4332: Systems Analysis and Design..... | 3 |
| Total Hours: | 16 |

| <i>Second Semester</i> | <i>Hours</i> |
|--|--------------|
| ASSE 4311: Learning Outcome Assessment III / Administrative Strategy and Policy | 3 |
| FINA 3311: Financial Management Principles | 3 |
| MISY 4341: Object-Oriented Analysis and Design | 3 |
| MIS Elective* | 3 |
| Business Elective** | 3 |
| Total Hours: | 15 |

**Choose from MISY 333: Advanced Database Concepts1, MISY 3332: Advanced Programming Concepts for Information Systems, or MISY 4342: Electronic Commerce Security.*

***Select any elective from the College of Business Administration.*

UNDERGRADUATE COURSES OFFERED BY THE COLLEGE OF BUSINESS ADMINISTRATION

Accounting - ACCT

ACCT 2311: Fundamentals of Financial Accounting (3,0) This course is an introduction to the concepts, purposes, problems, methodology, and terminology of financial accounting. Emphasis is placed on using accounting information for decision making.

Prerequisite: None

ACCT 2321: Fundamentals of Managerial Accounting (3,0) This course introduces the concepts, purposes, problems, methodology, and terminology of managerial accounting. It demonstrates the role of accounting in providing information for decision making, planning, and assisting managers in the activities of the enterprise. In addition, it provides motivation for managers and employees toward achieving organizational goals. **Prerequisite:** ACCT 2311: Fundamentals of Financial Accounting

ACCT 3311: Intermediate Accounting I (3,0) This is the first of a two-semester sequence on intermediate accounting in which the students study the environment of accounting, the development of accounting standards, and the basics of accounting theory.

Prerequisite: ACCT 2321: Fundamentals of Managerial Accounting

ACCT 3312: Introduction to Accounting Information Systems (3,0) This course presents analysis and design of business processes. It includes coverage of control concepts, audit trails, and the uses of information technology. It emphasizes the role of accounting in collecting, storing, and communicating information for management planning and control. **Prerequisites:** ACCT 2321: Fundamentals of Managerial Accounting.

ACCT 3321: Intermediate Accounting II (3,0) This course covers the process of financial accounting, problems encountered in the preparation of financial statements, and concepts and principles used to resolve these problems. It is the second of a two-semester sequence on intermediate accounting. **Prerequisite:** ACCT 3311: Intermediate Accounting I

ACCT 4311: Auditing and Assurance Services (3,0) This course covers the principles, concepts, and techniques appropriate to the acquisition, evaluation, and documentation of audit evidence. Internal control concepts and financial compliance are emphasized, as well as the following: generally accepted auditing standards and professional responsibilities; the auditor's decision process in obtaining and evaluating sufficient competent evidential matter; information systems; and audit and control techniques. **Prerequisites:** ACCT 3312: Introduction to Accounting Information Systems, ACCT 3321:

Intermediate Accounting II

ACCT 4312: Advanced Accounting (3,0) This course covers accounting for three major areas: business combinations and consolidations, accounting for partnerships, and accounting for foreign currency transactions. **Prerequisite:** ACCT 3321: Intermediate Accounting II

ACCT 4313: Accounting for Governmental and Not-For-Profit Organizations (3,0) This course discusses the basic framework, principles and concepts underlying accounting for governmental and not-for-profit organizations. This includes budgeting, fund accounting, and accounting and financial reporting for local governmental units, hospitals, voluntary health and welfare organizations, and other non-profit entities. **Prerequisite:** ACCT 3311: Intermediate Accounting I

ACCT 4314: International Accounting (3,0) This course covers financial accounting and reporting principles and practices in industrial and developing nations, along with the convergence of worldwide accounting standards. The role of accounting in economic development is discussed. Other topics include accounting considerations in multinational business operations, such as foreign currency translation, auditing, profit planning and control, transfer pricing and taxation. **Prerequisite:** ACCT 3321: Intermediate Accounting II

ACCT 4321: Accounting for Managerial Planning and Control (3,0) This course examines the role and development of accounting and other information for use in planning, controlling, making decisions, and evaluating performance. In addition, the application of appropriate quantitative and statistical methods is covered. **Prerequisite:** Senior standing.

Assessment – ASSE

ASSE 4311: Learning Outcome Assessment III / Administrative Strategy and Policy (3,0) This is the final capstone course in the PMU Assessment Capstone Series, integrating a range of business functions for all majors in the College of Business Administration. It builds on other courses in the university and business cores to furnish the underlying tools and concepts needed to develop and implement business strategies and policies. The course considers the overall picture and environment in which businesses operate including governmental rules and regulations, business ethics and social responsibility, and internal and external considerations in global, dynamic settings. **Prerequisite:** Senior year standing

Business Administration – BUSI

BUSI 3311: Legal Environment of Business (3,0) This course covers the legal environment in which all businesses must operate. It consists of a survey of major business law concepts, including contracts. Emphasis is placed on commercial law and labor law in Saudi Arabia. **Prerequisite:** Sophomore year standing

BUSI 3312: Organizational Behavior (3,0) This course addresses effective interactions and behaviors within an organizational setting. It provides students with an overview of topics on organizational behavior and organizational structure. **Prerequisite:** None

BUSI 3313: Marketing Principles (3,0) This course introduces students to the key marketing issues needed to effectively market the products of a firm. A broad array of topics is addressed including marketing in the current global and technological environment. **Prerequisite:** MATH 1313: Statistical Methods

BUSI 3321: Operations Management (3,0) This course focuses on process management within an organization. It provides students with an understanding of the factors that must be analyzed and controlled to efficiently produce goods or provide services. The course also introduces students to operations research methods that are used to make production decisions. **Prerequisites:** MATH 1311: Finite Mathematics for Students of Business, MATH 1312: Calculus for Students of Business, MATH 1313: Statistical Methods

BUSI 3322: Supply Chain Management (3,0) This course focuses on inventory management and distribution of both raw and finished goods. The course provides students with the fundamental information to manage a supply chain, including strategy, planning and operation of a supply chain. **Prerequisites:** BUSI 3321: Operations Management, MATH 1311: Finite Mathematics for Students of Business, MATH 1312: Calculus for Students of Business, MATH 1313: Statistical Methods

BUSI 3323: Human Resource Management (3,0) This course is an introduction to the human resource concepts in modern organizations (known in the past as personnel and industrial relations). It covers different aspects of managing the human factor in organizations and using the tools necessary for its effective management. Course materials cover forecasting human resource needs, and recruiting, selecting, and compensating employees. In addition the course addresses training, development, evaluation, and discipline of the work force, as well as employee assistance programs. **Prerequisite:** Junior year standing

BUSI 3331: Business Negotiations (3,0) This course focuses on negotiations in a variety of business settings in which the negotiations may involve individuals, groups, and/or organizations. The course provides a practical understanding of conflict resolution and negotiations in the work environment. **Prerequisite:** Senior year standing

BUSI 3341: Advanced Statistical Methods (3,0) This course covers advanced statistical techniques that are used in business to analyze data. These techniques include linear and logistic regressions, ANOVA/ANCOVA, path analysis and CHI squared analysis along with other techniques. Students acquire the necessary statistical basis for using SPSS, which is the computer tool for the data analysis, in an applied environment. This class is intended to follow MATH 1313: Statistical Methods. It covers some of the same topics in more depth than the introductory class and introduces the students to new techniques. **Prerequisite:** MATH 1313: Statistical Methods.

BUSI 4261: Entrepreneurship (2,0) This course provides an overview of various factors to consider when starting a new venture. The course gives students an overview of the steps involved in starting their own business, including techniques for evaluating new business opportunities. **Prerequisites:** First semester senior standing, ACCT 2311: Fundamentals of Financial Accounting, ACCT 2321: Fundamentals of Managerial Accounting, BUSI 3312: Organizational Behavior, BUSI 3313: Marketing Principles, BUSI 3321: Operations Management

BUSI 4311: e-Commerce (2,1) This course presents an overview of the issues that must be considered in establishing an e-commerce business. The course addresses technological, strategic and operational issues that must be addressed to be successful in an e-commerce environment. **Prerequisite:** BUSI 3313: Marketing Principles, MISY 2311: Introduction to MIS

BUSI 4321: International Business (3,0) This course presents factors in conducting business internationally, within the global economy. The course focuses on the fundamental economic, financial, and political factors affecting firms in the global arena. **Prerequisite:** This course should be taken in the second semester of the junior year or later.

BUSI 4351: Internship (3,0) This course provides students with hands-on experience in their chosen field of study. Working within a firm or organization, students have the opportunity to apply the concepts learned in the classroom to the real problems and issues of a business environment. Assignments vary depending upon the student's major. **Prerequisite:** ASSE 2111: Learning Outcome Assessment I, ASSE 3211: Learning Outcome Assessment II, Completion of all core courses in the College of Business Administration.

Finance – FINA

FINA 3311: Financial Management Principles (3,0) This course provides the fundamental concepts of finance. An introduction of key aspects of finance including financial planning, objectives, financial analysis, capital budgeting, capital structure, managing current assets, and managing short-term and long-term financing are addressed along with other key financial decisions such as capital structure and dividend policy. **Prerequisites:** ACCT 2311: Fundamentals of Financial Accounting, ACCT 2321: Fundamentals of Managerial Accounting, ECON 1311: Introduction to Macroeconomics, ECON 1312: Introduction to Microeconomics

FINA 3312: Financial Institutions (3,0) This course deals with practices and instruments of financial institutions. It covers different types of risk such as interest rate risk, credit risk, and liquidity risk. Modern instruments are studied to provide an understanding of how they work and the implications of their use on different institutions and individuals. Financial market terms are defined. **Prerequisites:** ACCT 2311: Fundamentals of Financial Accounting, ACCT 2321: Fundamentals of Managerial Accounting, ECON 1311: Introduction to Macroeconomics, ECON 1312: Introduction to Microeconomics, FINA 3311: Financial Management Principles

FINA 3313: Money and Banking (3,0) This course provides the student with an understanding of the essential aspects of money, monetary theory, banking and finance, and financial institutions. Local and global financial markets and institutions are addressed. **Prerequisites:** ECON 1311: Introduction to Macroeconomics, ECON 1312: Introduction to Microeconomics

FINA 3314: Financial Statements Analysis (3,0) This course addresses the key components of different financial statements and demonstrates how to analyze these statements. Different tools of analysis such as ratios, common size statements, trend analysis over time, and industry comparisons are studied. Interpretation of the results is highlighted. **Prerequisites:** ACCT 2311: Fundamentals of Financial Accounting, ACCT 2321: Fundamentals of Managerial Accounting

FINA 4312: Advanced Financial Management (3,0) This course builds on the financial management concepts taught in the introductory course by applying the concepts to different business situations, developing more in depth understanding of the financial management tools and interpreting the results. Finance policy and its interrelationship to the goals of the organization are addressed.

Prerequisite: FINA 3311: Financial Management Principles

FINA 4313: Investments (3,0) This course introduces modern investment concepts and techniques including portfolio management. It highlights the importance of risk and return tradeoff. Other concepts include financial markets, capital markets, valuation of the firm, security analysis, investment equity versus debt, efficiency of market evaluation, diversification efforts, investment goals, and portfolio selection. **Prerequisites:** ACCT 2311: Fundamentals of Financial Accounting, ACCT 2321: Fundamentals of Managerial Accounting, FINA 3311: Financial Management Principles

FINA 4314: International Finance (3,0) This course covers financial management from an international perspective. Students are exposed to influences of different currencies on exchange rates, and how international transactions and the exchange rates can affect the performance of a firm. Global aspects are studied to demonstrate how they affect the flow of funds, financial markets, exchange rate risk, long-term asset management, and short-term asset management.

Prerequisites: ECON 1311: Introduction to Macroeconomics, ECON 1312: Introduction to Microeconomics, FINA 3311: Financial Management Principles

FINA 4315: Security Analysis and Portfolio Management (3,0)

This course builds on the concepts developed in other courses concerning financial management, investments, and statistics. It is designed to teach the individual how to manage his or her money to get the maximum return for the acceptable risk level. It provides in-depth coverage of how to analyze different securities, select a portfolio, and manage that portfolio. **Prerequisites:** FINA 3311: Financial Management Principles, FINA 4313: Investments, MATH 1313: Statistical Methods

FINA 4316: Capital Budgeting (3,0) This course addresses the key components of evaluating capital projects including cash flow estimation, methods and evaluations techniques, project and portfolio risk. Related topics such as modified rate of return, net present value, profitability index, payback, disposal decisions, and reinvestment assumption also are included. **Prerequisites:** ACCT 2311: Fundamentals of Financial Accounting, ACCT 2321: Fundamentals of Managerial Accounting, ECON 1311: Introduction to Macroeconomics, ECON 1312: Introduction to Microeconomics, FINA 3311: Financial Management Principles, MATH 1313: Statistical Methods

FINA 4351: Special Topics in Finance (3,0) This course introduces current finance topics that are not covered or not covered sufficiently in other finance courses. Special topics to be announced may include corporate finance, financial management, investments, real estate, insurance, or financial institutions and markets. **Prerequisites:** Prerequisites vary depending upon the topic. Admission to the course also may be granted by permission of the instructor.

Management Information Systems - MISY

MISY 2311: Introduction to Management Information Systems (3,0) This course is designed to provide the students with an introduction to information systems. It includes a discussion of the fundamental principles, generalizations, and theories of information systems. Students are exposed to many of the areas of information systems including databases, telecommunications, software and hardware concepts, and information security. What information systems are and how they are developed is part of this class. Much of the course explores how information systems affect a business and how information concepts are changing the way a firm competes in the modern world. **Prerequisite:** None

MISY 2312: Introductory Programming for Information Systems (3,0) This course is designed to provide students with an introduction to computer programming. It introduces the student to programming with an object-oriented language. It specifically addresses the basic elements of Java programming in a comprehensive way. Students develop business-oriented applications using Java in a PC based programming environment. The course includes a discussion of the classical principles of programming in a structured environment. **Prerequisite:** Sophomore standing

MISY 2313: Intermediate Programming for Information Systems (3,0) This course is designed to follow MISY 2312: Introductory Programming for Information Systems. The objective of this course is to introduce the basic principles of computer programming and file organization through the use of the C# programming language. Upon successfully completing this course the student will understand and be able to apply the fundamental principles of computer programming and file processing, and be able to apply the principals and develop short applications using the C# programming language. **Prerequisite:** MISY 2312: Introduction to Programming for Information Systems

MISY 3311: Database Management for Information Systems (3,0)

This course is designed to provide the students with an introduction to database terminology, classifications, and methods. It includes a discussion of the fundamental principles, generalizations, and theories of database management. Students develop specific skills, competencies, and points of view needed by professionals in this field.

Prerequisites: MISY 2312: Introductory Programming for Information Systems, MISY 2313: Intermediate Programming for Information Systems

MISY 3312: Introduction to Telecommunications (3,0)

This course focuses on the concepts and issues of the technologies that make the global Internet a reality: local and long-distance computer data communications and networks, and Internet applications. It develops concepts of telecommunications and focuses on how they impact business. The principles of data communications associated with telecommunications technologies and their impacts are discussed.

Prerequisite: Junior standing

MISY 3321: Introduction to Information Assurance (3,0)

This course provides the student the opportunity to learn about the basic elements that comprise information assurance. Topics include, but are not limited to: fundamentals of information assurance, hacking and hackers, common ways of gaining access to systems and how to prevent this unauthorized access, and specific weaknesses of various operating systems. **Prerequisite:** MISY 3312: Introduction to Telecommunications, MISY 2313: Intermediate Programming for Information Systems

MISY 3331: Advanced Database Concepts (3,0)

This course is designed to provide students with an advanced knowledge of the definition, creation, and management of databases for business oriented applications. Students learn the concepts necessary to design a good, efficient database for better performance while understanding the needs of the database's business applications. The focus of the class is on ORACLE as the database platform. Overall understanding of the relational database model is a primary objective of the course. Students successfully completing this class are able to analyze the business requirements for a database application and translate those requirements to a relational database. **Prerequisites:** MISY 3311: Database Management for Information Systems, MISY 2313 Intermediate Computer Programming for Information Systems

MISY 3332: Advanced Programming Concepts for Information Systems (3,0) This course is designed to provide students with an advanced examination of programming concepts that center around object oriented programming. It includes a discussion of the fundamental principles, generalizations, and theories of object oriented programming, using C# to demonstrate object oriented concepts. Students successfully completing this class are able to analyze business requirements, translate the flow requirements to a data flow diagram, and develop the software necessary to solve the problem. **Prerequisites:** MISY 2312: Introductory Programming for Information Systems, MISY 2313: Intermediate Programming for Information Systems

MISY 4331: Building Electronic Commerce (3,0) This course focuses on the concepts and issues of electronic commerce. New business models using e-commerce are discussed in specific business situations. Students design and build a Web site using HTML and active server pages. **Prerequisite:** MISY 2312: Introductory Programming for Information Systems, MISY 2313: Intermediate Programming for Information Systems

MISY 4332: Systems Analysis and Design (3,0) This course provides an introduction to the analysis and design process. It includes a discussion of the classical, behavioral principles, and technologies of information systems analysis and design. Students learn how to develop user requirements and to translate the requirements to specifications for system development. **Prerequisite:** MISY 3311: Database Management for Information Systems

MISY 4341: Objected-Oriented Analysis and Design (3,0) This course provides an introduction to object-oriented systems analysis and design. It includes a discussion of the fundamental principles, terminology, and analysis and design techniques associated with object-oriented systems. The course focuses on the techniques of object-oriented analysis and system design from the perspective of the user, with particular emphasis for the client-server environment. **Prerequisite:** MISY 4332: Systems Analysis and Design

MISY 4342: Electronic Commerce Security (3,0) In this course, students learn the basic elements of Electronic Commerce Security. Topics to be covered in this course include, but are not limited to: fundamentals of e-business security, client-side vulnerabilities, securing the data transaction, securing the commerce server, securing the e-business architecture, and impacts of denial of service attacks on e-commerce security. **Prerequisite:** MISY 3321: Introduction to Information Assurance

EXECUTIVE MBA CURRICULUM

Vision

The Executive MBA program is designed for working professionals. These professionals must have significant work experience after the undergraduate degree and have diverse educational backgrounds. All participants must have advanced to a point in their careers where an understanding of business concepts is essential to job performance and career advancement.

The program is structured so that participants will complete the program in two years while maintaining their full time professional work responsibilities. All participants in the program should be full time employees of organizations or be self employed in their own, established businesses.

The Executive MBA program is a general management program. It does not present in-depth coverage of any of the traditional functional business areas. The goal of the program is to create the general understanding of business required of a general manager.

The Executive MBA program maintains consistent values with the undergraduate goals of the university. The development of six distinctive competencies are considered to be of value to all effective professionals, whether they are advancing their education at the graduate or undergraduate level. Instruction is in the English language.

ADMISSION REQUIREMENTS

Each entering class of the Executive MBA program consists of approximately 30 program participants.

Educational Background

A prior degree comparable to a Saudi Bachelor's degree is required. However, the university admits students with a variety of undergraduate degrees, not just business.

Work Experience

Successful candidates should have at least two years of professional work experience. Each class will represent a variety of industries and organizations. Students are selected to represent a variety of functional responsibilities within their organizations. Varying levels of managerial responsibility also are represented.

Standardized Tests

English Language - Students must demonstrate proficiency in the English language through satisfactory performance on the International English Language Testing System (IELTS) or Test of English as a Foreign Language (TOEFL) together with the Test of Written English (TWE).

GMAT - Students are required to demonstrate their abilities through the GMAT (Graduate Management Admission Test).

Support, References, and Interview

Letter of organizational sponsorship All applicants who are not self-employed must provide a letter from their employing organization stating its agreement with the student's participation in the program and allowing time from work, as necessary, to participate in the program.

Letters of reference Employed applicants should provide at least three letters from supervisors and others in superior positions within the employing organization. These letters should attest to the applicant's abilities and work experience.

Self-employed applicants should submit letters from business partners, former employers, associated vendors, or others who can provide appropriate references.

Personal interview Each candidate who otherwise meets the selection criteria is personally interviewed by a committee of program administrators and faculty.

THE EDUCATIONAL EXPERIENCE

Content of the Program

The Executive MBA program is an overview of business and how the various functional areas of business fit together. It provides a vocabulary of business for non-business graduates that enables them to understand the content of business meetings and discussions.

Program Participants

The student's employer also should provide an official recognition of participation and a willingness to give the student the time necessary to complete the program.

Size of the Program

The typical entering class for the Executive MBA program is approximately 30 students. These students pursue a lock-step curriculum in which they all take the same courses in the same sequence at the same time.

Student Performance Standards

The PMU Executive MBA program requires students to maintain minimum standards of academic performance. Using a 4.0 scale for course grades, the department requires that students achieve an overall grade point average (GPA) of 3.0 (“B”) for graduation. No more than 20% of grades for individual courses may be 2.5 or below.

There will be an expectation of 100% attendance at all class sessions. In order to achieve this, students and their employers must understand and agree upon this requirement before the start of the program. One or two absences during a course may affect the course grade, at the discretion of the instructor. Chronic attendance problems may lead to dismissal from the program.

Technology and the Executive MBA

Students will have access to the same technology-infused environment as the undergraduates, faculty, and staff of the PMU, including wireless Internet access. Internet access allows seamless communication among students, faculty and administration and makes large amounts of information readily available.

PROGRAM STRUCTURE

The Executive MBA program requires 45 credit hours (15 courses), with no waivers of courses. All students take the same courses each semester.

Class Schedule

The standard Executive MBA program requires two years. Alternative programs (two-and-one-half-year, three-year, and a four-year) also may be arranged. Classes meet during fall and spring semesters. The program does not meet during the summer.

Residency Days

A preparation program in accounting, finance, statistics, and economics provides the basic skills that students need for the program. This program will be distributed across a number of Residency Days at the start of semesters. It is required of all students, though it carries no credit. Residency Days provide a review of concepts that are necessary for that semester. They also provide an overview of each course that will be taken that semester. Students, especially those without undergraduate business degrees, use this day to become familiar with the key concepts of the upcoming semester.

COURSE SEQUENCE FOR THE EXECUTIVE MBA

Total Semester Credit Hours: 45

Semester One

| Course Title | Semester Credit Hours | Hours Spent In Class |
|--|--------------------------------------|-------------------------------------|
| EMBA 1312: Financial Accounting | 3 | 45 |
| EMBA 1313: Organizational Behavior | 3 | 45 |
| EMBA 1314: Managerial Economics | 3 | 45 |
| Total | 9 | 135 |

Semester Two

| Course Title | Semester Credit Hours | Hours Spent In Class |
|--|--------------------------------------|-------------------------------------|
| EMBA 2311: Managerial Accounting | 3 | 45 |
| EMBA 2312: Marketing Management | 3 | 45 |
| EMBA 2313: Quantitative Analysis | 3 | 45 |
| EMBA 2314: Finance | 3 | 45 |
| Total | 12 | 180 |

Semester Three

| Course Title | Semester Credit Hours | Hours Spent In Class |
|--|--------------------------------------|-------------------------------------|
| EMBA 3311: Electronic Commerce | 3 | 45 |
| EMBA 3312: Operations Management | 3 | 45 |
| EMBA 3313: Management of Information Systems | 3 | 45 |
| EMBA 3314: International Business | 3 | 45 |
| Total | 12 | 180 |

Semester Four

| Course Title | Semester Credit Hours | Hours Spent In Class |
|--|--------------------------------------|-------------------------------------|
| EMBA 4311: Legal Environment of Business | 3 | 45 |
| EMBA 4312: Strategic Management..... | 3 | 45 |
| EMBA 4313: Project..... | 3 | 45 |
| EMBA 4314: Investment and Portfolio Management | 3 | 45 |
| | Total | 180 |

GRADUATE COURSES OFFERED IN THE EXECUTIVE MBA PROGRAM

EMBA 1312: Financial Accounting, (3.0) This course studies financial accounting from the perspective of understanding and using financial statements in the operation of an organization. The course provides a brief overview of accounting principles, how financial statements report economic events, and earnings. **Prerequisites:** Enrollment in the PMU Executive MBA program.

EMBA 1313: Organizational Behavior (3,0) This course focuses on the need for managers and organizations to anticipate, adapt to, and manage change. The course examines three characteristics common to most organizations – behavior, structure, and processes - and how these affect the actions of managers. **Prerequisites:** Enrollment in the PMU Executive MBA program.

EMBA 1314: Managerial Economics (3.0) This course considers recent advances in economics and applies them to the internal structure of organizations. It looks inside the firm and applies economics to management decision making. The course focuses on the organizational architecture of organizations and how economics affects that structure, and how it can be applied to improve the overall performance of the organization. **Prerequisites:** Enrollment in the PMU Executive MBA program.

EMBA 2311: Managerial Accounting (3,0) This course provides an understanding of the impact of economics on the financial statements of a company by addressing the traditional cost concepts and applying those concepts to the measurement and management of costs in organizations. **Prerequisites:** Enrollment as a second semester student in a two-year PMU Executive MBA degree program.

EMBA 2312: Marketing Management, (3,0) This course focuses on consumer buying behavior, the strategic role of marketing in organizations, the need for and use of information systems to support marketing efforts, market segmentation, product pricing, distribution and promotion, and marketing mix decisions. The course uses a combination of lecture and case learning styles. Students study what marketing managers do, with a focus on understanding of marketing concepts in all types of businesses. The course stresses the need to integrate marketing

into the other functional areas of business and how they relate and impact on one another. **Prerequisites:** Enrollment as a second semester student in a two-year PMU Executive MBA degree program

EMBA 2313: Quantitative Analysis (3,0) This is an introduction to the use of quantitative methods in business decision making. The course focuses on the application of statistics and other quantitative analysis tools related to business with emphasis on manufacturing, finance, and marketing. **Prerequisites:** Enrollment as a second semester student in a two-year PMU Executive MBA degree program.

EMBA 2314: Finance (3,0) This course presents the theory and practice of corporate finance. The course focuses on the application of the concepts to real world problems through rigorous and practical problems. The topics of discounted cash flows and capital asset models are presented along with the standard topics of present value, risk and return, capital budgeting, EVA, and market efficiency. **Prerequisites:** Enrollment as a second semester student in a two-year PMU Executive MBA degree program.

EMBA 3311: E-Commerce (3,0) This course focuses on how electronic commerce and the digital marketplace are impacting and will continue to impact businesses. The main emphasis is on the strategic role of electronic commerce and how businesses can use electronic commerce to create a competitive advantage. The course also covers business models and technology infrastructure in this environment. **Prerequisites:** Enrollment as a third semester student in a two-year PMU Executive MBA degree program.

EMBA 3312: Operations Management (3,0) This course provides the general manager with the foundation for dealing with operations issues within an organization. Operations are viewed as a source of competitive advantage for the organization, and this course looks at ways of identifying and implementing operational improvements. The course examines the role of the supply chain and its management. **Prerequisites:** Enrollment as a third semester student in a two-year PMU Executive MBA degree program .

EMBA 3313: Management Information Systems (3,0) This course provides the insights and knowledge that managers need in order to deal with information system decisions in the business environment. How to use technologies in new and innovative way in today's business organizations is a key part of this course. The understanding of the core concepts of management information systems is a goal of the course. **Prerequisites:** Enrollment as a third semester student in a two-year PMU Executive MBA degree program.

EMBA 3314: International Business (3,0) This course examines doing business internationally and at the global economy. The course focuses on the fundamental economic, financial, and political factors affecting firms in the global arena. **Prerequisites:** Enrollment as a third semester student in a two-year PMU Executive MBA degree program.

EMBA 4311: Legal Environment of Business (3,0) This course provides a managerial focus to the key legal concepts that affect the operations of today's businesses. The legal concepts are discussed and presented as they apply to the various functional areas of business. Particular attention is given to international business issues and the regulatory environment. **Prerequisites:** Enrollment as a fourth semester student in a two-year PMU Executive MBA degree program.

EMBA 4312: Strategic Management (3,0) This course presents a perspective of management and decision making for the entire organization. It focuses on the strategic perspective of organizations and the decisions that are critical to the future performance of the organization. **Prerequisites:** Enrollment as a fourth semester student in a two-year PMU Executive MBA degree program.

EMBA 4313: Project (3,0) The project gives students in the Executive MBA program the opportunity to apply the key concepts of the curriculum to an issue or a problem facing their organization. The student identifies an issue or an opportunity and proposes an approach or solution to that issue that makes use of the content of the program. The culmination is a written report and an oral presentation. **Prerequisites:** Enrollment as a fourth semester student in a two-year PMU Executive MBA degree program.

EMBA 4314: Investment and Portfolio Management (3,0) This course presents the principles and techniques of investment analysis for the evaluation of securities. It covers financial markets and how securities are traded. Risk, return and fundamental economic principles are explored in the context of investments and investor behavior. **Prerequisites:** Enrollment as a fourth semester student in a two-year PMU Executive MBA degree program.

The EMBA program will be implemented in February 2008. All of the above listed topics will be addressed in this program. The exact days and date of the scheduled meetings will be determined at a later date. All program activities are scheduled to accommodate the normal work schedule of the participants. The learning methodologies associated with an EMBA program can be characterized by a strong reliance on team project development. These activities will be scheduled after the commencement of the program in conjunction with the professor.