

# PF I . 1 . **IMPLEMENTATION** The Faculty I.1. demonstrate skills and competencies in all of the following: I.1.1. knowledge of the program objectives/outcome(s); Documents attached: • CHED MEMORANDUM ORDER 87 S. 2017 SAMPLE SYLLABUS





CMO 87 s. 2017







### Republic of the Philippines OFFICE OF THE PRESIDENT COMMISSION ON HIGHER EDUCATION

OFFICIAL SOME SECTION OF SECONDS SECTION

CHED MEMORANDUM ORDER No. <u>87</u> Series of 2017

SUBJECT: POLICIES, STANDARDS AND GUIDELINES FOR THE BACHELOR OF SCIENCE IN COMPUTER ENGINEERING (BSCpE) EFFECTIVE (AY) 2018-2019

In accordance with the pertinent provisions of Republic Act (RA) No. 7722, otherwise known as the "Higher Education Act of 1994," in pursuance of an outcomes-based quality assurance system as advocated under CMO 46 s. 2012 (Policy-Standard to Enhance Quality Assurance (QA) in Philippine Higher Education through an Outcomes-Based and Typology-Based Quality Assurance) and as addendum to CMO 37, s. 2012 (Establishment of an Outcomes-Based Educational System in Higher Education Institutions offering Engineering Programs), and by virtue of Commission en banc Resolution No. 788-2017 dated October 24, 2017 the following Policies, Standards and Guidelines (PSG) are hereby adopted and promulgated by the Commission.

### ARTICLE I

#### Section 1. Rationale

Based on the *Guidelines for the Implementation of CMO No. 46 series of 2012* and CMO 37 s. 2012, this PSG implements shift to outcomes based education leading to competency based standards. It specifies the "core competencies" expected of BS Computer Engineering graduates "regardless of the type of Higher Education Institutions (HEI) they graduate from." However, in recognition of outcomes-based education (OBE) and the typology of HEIs, this PSG also provide ample space for HEIs to innovate in the curriculum in line with the assessment of how best to achieve learning outcomes in their particular contexts and their respective missions.

#### ARTICLE II AUTHORITY TO OPERATE

#### Section 2. Government Recognition

All private higher education institutions (PHEIs) intending to offer BS Computer Engineering must first secure proper authority from the Commission in accordance with this PSG. All PHEIs with an existing BS Computer Engineering program are required to shift to an outcomesbased approach based on CMO 37, s. 2012 and guided by this PSG. State universities and colleges (SUCs), and local universities and

Higher Education Development Center Building, C.P. Garcia Ave., UP Campus, Diliman, Quezon City, Philippines Web Site: <a href="https://www.ched.gov.ph">www.ched.gov.ph</a> Tel. Nos. 441-1177, 385-4391, 441-1169, 441-1149, 441-1170, 441-1216, 392-5296, 441-1220 441-1228, 988-0002, 441-0750, 441-1254, 441-1235, 441-1255, 411-8910, 441-1171, 352-1871





colleges (LUCs) should likewise strictly adhere to the provisions in these policies and standards.

#### ARTICLE III GENERAL PROVISIONS

Per Section 13 of RA 7722, the higher education institution shall exercise academic freedom in its curricular offerings but must comply with the minimum requirements for specific academic programs, the general education distribution requirements and the specific professional courses.

#### Section 3. Minimum Standards

The Articles that follow give minimum standards and other requirements and guidelines. The minimum standards are expressed as a minimum set of desired program outcomes which are given in Article IV Section 6. CHED designed a curriculum to attain such outcomes. This curriculum is shown in Article V Section 10 and Section 11 as **sample curriculum**. The number of units of this curriculum is here prescribed as the "minimum unit requirement" under Section 13 of RA 7722. To assure alignment of the curriculum with the program outcomes, this PSG provides a sample curriculum map in Article V Section 12 for the HEI to refer to in compliance with the implementing guidelines of CMO 37, s.2012.

Using a learner-centered/outcomes-based approach, CHED provided a description of Outcomes-Based Teaching and Learning delivery method in Article V Section 13. A sample course syllabus is also given in Article V Section 14 as support to the outcomes-based delivery method. Based on the curriculum and the means of its delivery, CHED determines the physical resource requirements for the library, laboratories and other facilities and the human resource requirements in terms of Administration and faculty. These are provided for in Article VI.

#### Section 4. Curriculum Design

The HEIs are allowed to design curricula suited to their own contexts and missions provided that they can demonstrate that the same leads to the attainment of the required minimum set of outcomes, albeit by a different route. In the same vein, they have latitude in terms of curriculum delivery and in terms of specification and deployment of human and physical resources as long as they can show that the attainment of the program outcomes and satisfaction of program educational objectives can be assured by the alternative means they propose.

The HEIs can use the CHED Implementation Handbook for Outcomes-Based Education (OBE) and the Institutional Sustainability Assessment (ISA) as a guide in making their submissions for Sections 19 to 24 of Article VII.

PSG for BSCpE

Page 2 of 22







### ARTICLE IV PROGRAM SPECIFICATIONS

#### Section 5. Program Description

#### 5.1 Degree Name

The degree program described herein shall be called Bachelor of Science in Computer Engineering (BSCpE).

#### 5.2 Nature of the Field of Study

The Bachelor of Science in Computer Engineering (BSCpE) is a program that embodies the science and technology of design, development, implementation, maintenance and integration of software and hardware components in modern computing systems and computer-controlled equipment.

#### 5.3 Characteristics of Computer Engineering Graduates

With the ubiquity of computers, computer-based systems and networks in the world today, computer engineers must be versatile in the knowledge drawn from standard topics in computer science and electrical engineering as well as the foundations in mathematics and sciences. Because of the rapid pace of change in the computing field, computer engineers must be life-long learners to maintain their knowledge and skills within their chosen discipline.

An important distinction should be made between computer engineers, electrical engineers, other computer professionals, and engineering technologists. While such distinctions are sometimes ambiguous, computer engineers generally should satisfy the following three characteristics

- Possess the ability to design computers, computer-based systems and networks that include both hardware and software and their integration to solve novel engineering problems, subject to trade-offs involving a set of competing goals and constraints. In this context, "design" refers to a level of ability beyond "assembling" or "configuring" systems.
- Have a breadth of knowledge in mathematics and engineering sciences, associated with the broader scope of engineering and beyond that narrowly required for the field.
- 3. Acquire and maintain a preparation for professional practice in engineering.

PSG for BSCpE

Page 3 of 22







#### 5.4 Program Educational Objectives

Program Educational Objectives (PEOs) are broad statements that describe the career and professional accomplishments that the program is preparing graduates to achieve within 3–5 years from graduation. PEOs are based on the needs of the program's constituencies and these shall be determined, articulated, and disseminated to the general public by the unit or department of the HEI offering the BSCpE program. The PEOs should also be assessed and evaluated periodically for continuing improvement.

#### 5.5 Knowledge Areas

The knowledge areas include the following but not limited to:

- a) Circuits and Electronics
   b) Computing Algorithms
   c) Computer Architecture and Organization
- Digital Design Embedded Systems
- Computer Networks
- Professional Practice Information Security

- Signal Processing Systems and Project Engineering Software Design
- Occupational Health and Safety
- m) Technopreneurship

#### 5.6 Allied Programs

The allied programs of the BSCpE program are the following:

- Electrical Engineering
   Electronics Engineering
   Software Engineering
- Computer Science e) Information Technology

These programs are those that may be considered as equivalent to the program for the purpose of determining faculty qualifications to handle allied and related courses to the program.

#### Section 6. Institutional and Program Outcomes

The minimum standards for the BS Computer Engineering program are expressed in the following minimum set of institutional and BSCpE program outcomes.

#### Institutional outcomes

a) Graduates of professional institutions must demonstrate a service orientation in one's profession,

PSG for BSCpE

Page 4 of 22







- b) Graduates of colleges must participate in various types of employment, development activities, and public discourses, particularly in response to the needs of the communities one serves
- Graduates of universities must participate in the generation of new
- knowledge or in research and development projects
  d) Graduates of State Universities and Colleges must, in addition, have the competencies to support "national, regional and local development plans." (RA 7722).
  e) Graduates of higher educational institutions must preserve and
- promote the Filipino historical and cultural heritage.

#### 6.2. BSCpE Program Outcomes

By the time of graduation, the students of the program shall have the

- Ability to apply knowledge of mathematics and science to solve complex engineering problems;
- b) Ability to design and conduct experiments, as well as to analyze and interpret data;
- Ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability, in accordance with standards;
- Ability to function on multidisciplinary teams;
- Ability to identify, formulate, and solve complex engineering problems;
- . Understanding of professional and ethical responsibility;
- Ability to communicate effectively; Broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context;
- i) Recognition of the need for, and an ability to engage in life-long learning
- Knowledge of contemporary issues;
- Ability to use techniques, skills, and modern engineering tools necessary for engineering practice; and Knowledge and understanding of engineering and management
- principles as a member and leader in a team, to manage projects and in multidisciplinary environments.

A PHEI, SUC, or LUC, at its option, may adopt mission-related program outcomes that are not included in the minimum set

Annex I presents the Competency Standards, Attributes and competencies of a Computer Engineer which should result from the program outcomes stated above.

PSG for BSCpE

Page 5 of 22







#### Section 7. Sample Performance Indicators

Performance Indicators (PIs) are specific, measurable statements identifying the performance(s) required to meet the outcome; confirmable through evidence.

Table 1. Sample Performance Indicators of a Program Outcome

Performance Outcomes			Performance Indicators
f	Understanding of professional and ethical responsibility	1	Demonstrate knowledge of professional code of ethics
		2	Evaluate the ethical and societal implications of a design solution to a problem in CpE

#### Section 8. Program Assessment and Evaluation

Program Assessment refers to one or more processes that identify, collect, and prepare data to evaluate the attainment of Program Outcomes and Program Educational Objectives.

Program Evaluation pertains to one or more processes for interpreting the data and evidence accumulated from the assessment. Evaluation determines the extent at which the Program Outcomes and the Program Educational Objectives are achieved by comparing actual achievement versus set targets and standards. Evaluation results in decisions and actions regarding the continuous improvement of the program.

All HEIs are encouraged to form a Consultative Body to be part of the assessment and evaluation processes to be represented by the stakeholders.

#### 8.1 Assessments and Evaluation of PEOs

The Assessment of Program Educational Objectives may include the following: the stakeholders of the program have to be contacted through surveys or focus group discussion to obtain feedback data on the extent of the achievement of the PEOs.

#### 8.2. Assessment and Evaluation of POs

In the case of Program Outcomes Assessment, the defined Performance Indicators shall be connected to Key Courses (usually the Demonstrating or "D" courses in the Curriculum map), and an appropriate Assessment Methods (AM) may be applied. These methods may be direct or indirect depending on whether the demonstration of learning was measured by actual observation and authentic work of the student or through gathered opinions from the student or his peers. Refer to Table 2.

PSG for BSCpE

Page 6 of 22







Sample Syllabus







Republic of the Philippines
POLYTECHNIC UNIVERSITY OF THE PHILIPPINES
College of Engineering
Department of Computer Engineering

#### Vision

Clearing the paths while laying new foundations to transform the Polytechnic University of the Philippines into an epistemic community.

#### Mission

Reflective of the great emphasis being given by the country's leadership aimed at providing appropriate attention to the alleviation of the plight of the poor, the development citizens, and of the national economy to become globally competitive, the University shall commit its academic resources and manpower to achieve its goals through:

- o Provision of undergraduate and graduate education which meet international standards of quality and excellence;
- o Generation and transmission of knowledge in the broad range of disciplines relevant and responsive to the dynamically changing domestic and international environments.
- o Provision of more equitable access to higher education opportunities to deserving and qualified Filipinos; and
- o Optimization, through efficiency and effectiveness, of social, institutional, and individual returns and benefits derived from the utilization of higher education resources

#### Goals

- 1. Provide quality education through instruction, advance research and extension services.
- 2. Produce world-class professionals as potential industry leaders and job providers.
- 3. Develop and produce facilities through the use of adapted technology and indigenous materials.
- 4. Maintain, upgrade or improve facilities through the applications of engineering technology.

#### Objectives

- 1. Strengthen the Bachelor of Science in Computer Engineering program consistent with global trends;
- 2. Develop the critical thinking and communication skills of students, giving emphasis to research and extension services;
- 3. Enhance the competencies of students to evaluate, assess, design and operate safe, effective, economically-efficient and environmental friendly computer-based system;
- 4. create a conducive teaching and learning atmosphere with emphasis to Bachelor of Science in Computer Engineering faculty and students' growth and academic freedom;





### POLYTECHNIC UNIVERSITY OF THE PHILIPPINES COLLEGE OF ENGINEERING DEPARTMENT

5. establish network with educational institutions, Industries, GO's and NGO's, local and international, which could serve as:

a. Funding sources and/or partners of researches;

b. Sources of new technology;

c. Centers for faculty and students' exchange programs and on-the-job trainings; and

d. Grantees of scholarship/additional facilities.

6. conduct continuously action researches on the needs of laboratory and other facilities that could be locally produced or innovated using local materials and adapted technology.

 equip graduates with appropriate knowledge and technical skills imbued with desirable work attitudes and moral values, through enhanced teaching/learning process by multimedia facilities on top of traditional methods;

8. develop faculty as competent mentors and quality researchers through advanced studies and other facets of continuing professional education

Course Title

: OBJECT-ORIENTED PROGRAMMING

Course Code

: COEN 3444

Course Credit

: 4 units

Pre-Requisite

: COEN 3340 (DATA STRUCTURES and ALGORITHM ANALYSIS)

Course Description : This course introduces new techniques and concepts of programming. Java will be use as the programming language and as tool to implement object-or programming. Consequently, students will acquaint themselves with new syntax that is used to program Java programs. Object oriented programming as one of the classifications of program and other object oriented related topics. This course takes as fact that the students have a learned the basic concepts of programming.

	Institutional Learning Outcomes	Program Outcomes		Course Objectives
	Creative and Critical Thinking	Use of contemporary problem solving in the analysis, design, and evaluation of computer and software systems, including system integration and implementation.		ter completing the course, the student ust be able to:
2.	E. SOLVE COMMUNICATION	Communicate effectively with the computing community and with society at large (in local and international scenes) about engineering activities by being able to comprehend and write effective reports, design documentation, make effective presentations, and give and understand clear instructions.	1	Learn the basic syntax and language ru of Java  Understand the different control structure.
3.	Strong Service Orientation	Share expertise in literacy, productivity, and livelihood technology to the		and their functions in programs
4.	Community Engagement	adopted community		and their remoderic in programic
			1	Learn the behavior and concepts of obje
	Adeptness in the Responsible Use of Technology	Use the techniques, skills and modern computer engineering tools necessary for engineering practice.		and classes
	Passion to Life-Long Learning	Engage in life-long learning and an understanding of the need to keep current of the developments in the specific field of practice.	1	Understand the use and the significance encapsulation, polymorphism, inheritance
7.	High Level of Leadership and Organizational Skills	Knowledge and understanding computer engineering and management		and abstraction
		principles as a member and a leader in a team, to manage projects and in		



			multidisciplinary environment.			✓ . Fami	liarize themselves with error and	
8. Sense	of Personal and Professional Eth	ice	Recognition of professional	poid and third 1999			ion handling code	
Sense of Nationalism and Global Responsiveness					✓ Use the different data structures collections available in the Java silbrary			
					✓ Learn how to read from input streams ar write to output streams			
						✓ Unders multi-th	custom GUI using the Java Swin tand the concept behind single a readed applications the knowledge of object orien ming in writing Java programs	
OURSE PL Week	AN Topic		earning Outcomes	Methodology	Ph			
Week 1	Class orientation Discussion of course goals, expecied outcomes, course policies and grading system Assigning of Groups and Officers	Familiarize Education Orient the	e student on Outcome-Based e student on the course rading system and classroom	Orientation  Review of the syllabus, learning activities and assessment  Getting to know activity	Resources  Course Syliabus  http://www.javafaq.nu/java- article381.html		None	
Week 2	Object-Oriented Concepts  • Procedural Programming vs. Object-Oriented Programming  • Abstract Data Types (ADTs)	Procedura Get familia	e difference between a al Programming and OOP ar with Abstract Data Types d the basic concepts of	Lecture/Discussion Program Demonstration Recitation/Board work			Quiz Hands-on Activity Recitation	





	Object-Oriented     Programming Concepts			Java Programming	
Week 3	Java Fundamentals - Anatomy of a Basic Java Program  Comments Primitive Data Types Expressions and Operators Reference Types	Familiarize the Java Language Fundamentals  Compile a basic program using Java Syntax	Lecture/Discussion Program Demonstration Recitation/Board work	http://www.javafaq.nu/java- article386.html Malik, D. S. Java Programming	Quiz Hands-on Activity Assignment Recitation
Week 4	Flow Controls Conditional Statements Looping Statements	Understand how the various flow control statements could be useful in Java programs.  Understand the concepts of conditional statements in Java.  Create Java programs to solve problems using various Flow Control statements and conditional statements	Lecture/Discussion Program Demonstration Recitation/Board work	Wu, Thomas C. An Introduction to Object- Oriented Programming,	Quiz Machine Problem Program Tracing Practical Exam
Week 5	Arrays     array declaration     memory allocation     array initialization     accessing and storing values in arrays     multidimensional array	Understand the concepts of array.  Learn how to use array in Java.  Create Java programs to solve problems using array.	Lecture/Discussion Program Demonstration Recitation/Board work	Skrien, D. Object-Oriented Design Using Java	Quiz Machine Problem Practical Exam Recitation





Week 6	Objects and Classes in Java  Classes  Access Modifiers  Methods and Attributes  Constructors  Class Methods and Class Variables	Understand the difference between procedural and object oriented programming.  Learn the benefits of OOP.  Learn how to define a class.  Understand the concepts and significance of UML.  Create Java programs to solve problems using array and array functions.  Create a UML design of a given program.	Lecture/Discussion Program Demonstration Recitation/Board work	http://www.javafaq.nu/java- article669.html	Quiz Machine Problem Program Tracing Hands-on Activity
Week 7	Declaring Classes  Methods  String Manipulations  Encapsulation  Types of Java Methods	Understand the concepts of declaring classes.  Understand the java methods.  Learn the concepts of string manipulation in Java.  Create Java programs to solve problems that require different types of Java method.	Lecture/Discussion Program Demonstration Recitation/Board work	_http://www.javafaq.nu/java- article664.html	Long Quiz Machine Problem Hands-on Activity Practical Exam
Week 8	Polymorphism and Inheritance  Importance of Inheritance  Importance of Polymorphism  Methods overriding and	Understand the concepts of polymorphism.  Learn different way of using inheritance in Java.  Create Java programs to solve problems that require polymorphism	Lecture/Discussion Program Demonstration Recitation/Board work	http://www.javafaq.nu/java- article422.html	Machine Problem Practical Exam Hands-on Activity





	Overloading	and inheritance.			
Week 9		MIC	TERM EXAMINATION		
Week 10	Exception and Assertion     Importance of Exceptions in Java     Customizing a Java Exception     Importance of Assertions in Java programs     Writing Java programs that implements exceptions handling and assertions	Understand the significance and the concepts of exception in Java.  Learn how to create a customized exception.  Understand the concepts of using	Lecture/Discussion Program Demonstration Recitation/Board work	Wu, Thomas C. An Introduction to Object- Oriented Programming,  http://www.javafaq.nu/java- article562.html	Short Quiz Machine Problem Practical Exam Assignment
Week 11	Collections Framework  Collection  Set  List  Map	Enumerate the different Collection Frameworks  Understand the concepts of collection Frameworks	Lecture/Discussion Program Demonstration Recitation/Board work	Wu, Thomas C. An Introduction to Object- Oriented Programming.  http://www.javafaq.nu/java- article673.html	Peer Programming Recitation Practical Exam Quiz
Week 12	Input and Output Streams InputStream/ OutputStream Classes Reader/Writer Classes File Handler Classes	Comprehend the applications of I/O streams with Java  Apply the Input and Output Streams with Java	Lecture/Discussion Program Demonstration Recitation/Board work	http://www.javafaq.nu/java- article680.html	Group Work Oral Participation Hands-On Activity Assignment



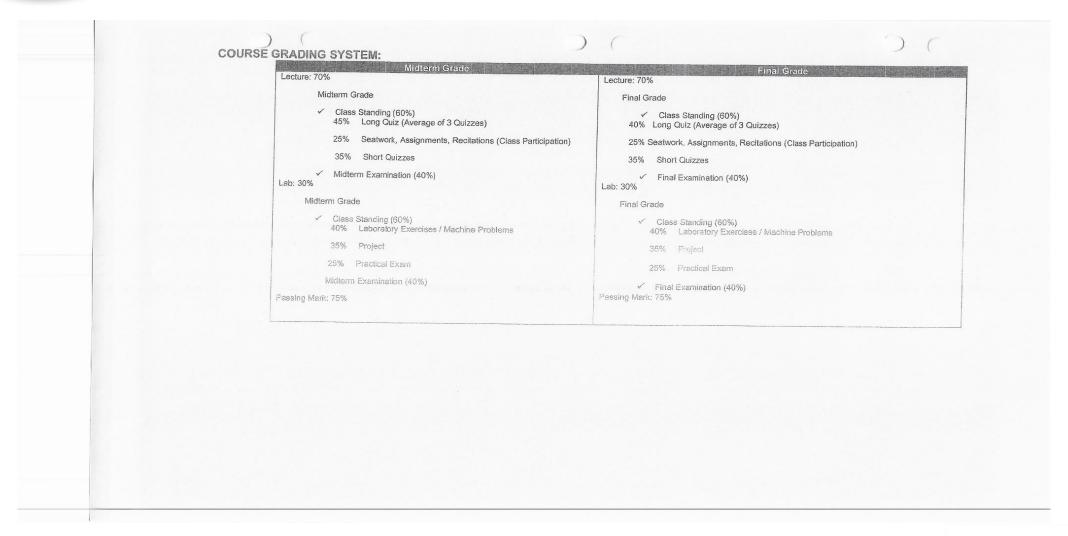


Week 13	GUI Development  AWT Graphical Components  Event Handling  Anonymous Classes	Evaluate the AWT Graphical Components and Event handling Create a Graphical User Interface (GUI)	Lecture/Discussion Program Demonstration Recitation/Board work	http://www.javafaq.nu/java- article672.html  Wu, Thomas C. An Introduction to Object- Oriented Programming	Long Quiz Machine Probler Practical Exam
Week 14	Thread  Thread Lifecycle  Thread Synchronization  Critical Sections	Understand the concepts of threading in Java.  Create Java program to solve problems that require multi-threading in Java.	Lecture/Discussion Program Demonstration Recitation/Board work	http://www.javafaq.nu/java- article673.html  Malik, D. S. Java Programming	Short Quiz  Machine Problem  Program Tracing
Week 15	Other Java Classes  Abstract Class  Interfaces	Evaluate Classes used in Java Create an Abstract Class and Interfaces	Lecture/Discussion Program Demonstration Recitation/Board work	http://www.javafaq.nu/java- article422.html Malik, D. S. Java Programming	Oral Participation Hands-On Activity Practical Exam
Week 16	APPLICATION PROJECT PRESENTATION	Culminating activity given to the grouped students to test their mastery of the course by developing application programs utilizing all the theories and concepts acquired	Project Presentation  System Walk-through  Simulation	Application Project Documentation  Developed System	Project Deliberation
Week 17	APPLICATION PROJECT PRESENTATION	Culminating activity given to the students to test their mastery of the course by developing application programs utilizing all the theories and concepts acquired	Project Presentation System Walk-through Simulation	Application Project Documentation  Developed System	Project Deliberation
Week 18		FIN	AL EXAMINATION		





### POLYTECHNIC UNIVERSITY OF THE PHILIPPINES COLLEGE OF ENGINEERING DEPARTMENT







		REVISION HISTORY			
Rev. No.	Description of Change	Approved by			
1	Format to OBE	Engr. Julius S. Cansino	Effective Date		
L		Ligi. Julius 3. Cansino	SY 2017-2018		
	Prepared by:  DR. ARVIN R. DE LA CRUZ  Name of Faculty	Noted by:  ENGR. JULIUS CANSINO  Chair derson			
		Approved by:			
		ENGR. GUILLERMO O. BERNABE Dean			
		DR. MANUEL M. MUHI Vice President for Academic Affairs			





PF J.12 I.1. demonstrate skills and competencies in all of the following: I.1.2. reflecting the program outcomes clearly in the course objectives; Documents attached: • SAMPLE SYLLABUS







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#### Vision

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- o Provision of undergraduate and graduate education which meet international standards of quality and excellence;
- o Generation and transmission of knowledge in the broad range of disciplines relevant and responsive to the dynamically changing domestic and international environments.
- o Provision of more equitable access to higher education opportunities to deserving and qualified Filipinos; and
- Optimization, through efficiency and effectiveness, of social, institutional, and individual returns and benefits derived from the utilization of higher education resources

#### Goals

- 1. Provide quality education through instruction, advance research and extension services.
- 2. Produce world-class professionals as potential industry leaders and job providers.
- 3. Develop and produce facilities through the use of adapted technology and indigenous materials.
- 4. Maintain, upgrade or improve facilities through the applications of engineering technology.

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- 3. Enhance the competencies of students to evaluate, assess, design and operate safe, effective, economically-efficient and environmental friendly computer-based system;
- 4. create a conducive teaching and learning atmosphere with emphasis to Bachelor of Science in Computer Engineering faculty and students' growth and academic freedom;





### POLYTECHNIC UNIVERSITY OF THE PHILIPPINES COLLEGE OF ENGINEERING DEPARTMENT

5. establish network with educational institutions, Industries, GO's and NGO's, local and international, which could serve as:

a. Funding sources and/or partners of researches;

b. Sources of new technology;

c. Centers for faculty and students' exchange programs and on-the-job trainings; and

d. Grantees of scholarship/additional facilities.

6. conduct continuously action researches on the needs of laboratory and other facilities that could be locally produced or innovated using local materials and adapted technology and transportate transportations and adapted technology.

 equip graduates with appropriate knowledge and technical skills imbued with desirable work attitudes and moral values, through enhanced teaching/learning process by multimedia facilities on top of traditional methods;

8. develop faculty as competent mentors and quality researchers through advanced studies and other facets of continuing professional education

Course Title : OBJECT-ORIENTED PROGRAMMING

Course Code : COEN 3444

Course Credit : 4 units

Pre-Requisite : COEN 3340 (DATA STRUCTURES and ALGORITHM ANALYSIS)

Course Description: This course introduces new techniques and concepts of programming. Java will be use as the programming language and as tool to implement object-or programming. Consequently, students will acquaint themselves with new syntax that is used to program Java programs. Object oriented programming as one of the classifications of program learned the basic concepts of programming.

,	Institutional Learning Outcomes	Program Outcomes	Course Objectives
1.	Creative and Critical Thinking	Use of contemporary problem solving in the analysis, design, and evaluation of computer and software systems, including system integration and implementation.	After completing the course the student
2.	Effective Communication	Communicate effectively with the computing community and with society at large (in local and international scenes) about engineering activities by being able to comprehend and write effective reports, design documentation	of Java
3.	Strong Service Orientation	make effective presentations, and give and understand clear instructions.  Share expertise in literacy, productivity, and livelihood technology to the	✓ Understand the different control structu
4.	Community Engagement	adopted community	and their functions in programs
=	Adapta - 1 II D III II		✓ Learn the behavior and concepts of ob
	Adeptness in the Responsible Use of Technology	Use the techniques, skills and modern computer engineering tools necessary for engineering practice.	and classes
	Passion to Life-Long Learning	Engage in life-long learning and an understanding of the need to keep current of the developments in the specific field of practice.	<ul> <li>Understand the use and the significand encapsulation, polymorphism, inheritan</li> </ul>
7.	High Level of Leadership and Organizational Skills	Knowledge and understanding computer engineering and management principles as a member and a leader in a team, to manage projects and in	and abstraction



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			multidisciplinary environmen	Ĺ		✓ . Familiar	ize themselves with error and
Sense of Personal and Professional Ethics			Recognition of professional	social, and ethical responsibilit		exception	handling code
9. Sense	Sense of Nationalism and Global Responsiveness		The broad education neces	essary to understand the im	У		lifferent data structures and
OURSE PL	AM		engineering solutions in glob.			library  ✓ Learn how write to ou  ✓ Create cus API  ✓ Understan multi-threa	s available in the Java standar v to read from input streams a utput streams stom GUI using the Java Swir d the concept behind single a ded applications knowledge of object orien ng in writing Java programs
orton I in	7-11-1						
Week	Торіс	Le	arning Outcomes	Methodology	Resou	Irces	Aggregation
Week Week 1	Topic  Class orientation Discussion of course goals, expected outcomes, course policies and grading system Assigning of Groups and Officers	Familiarize Education Orient the	arning Outcomes student on Outcome-Based student on the course ading system and classroom	Methodology Orientation Review of the syllabus, learning activities and assessment Getting to know activity	Resou Course S		Assessment None





	Object-Oriented     Programming Concepts			Java Programming	
Week 3	Java Fundamentals - Anatomy of a Basic Java Program  Comments Primitive Data Types Expressions and Operators Reference Types	Familiarize the Java Language Fundamentals  Compile a basic program using Java Syntax	Lecture/Discussion Program Demonstration Recitation/Board work	http://www.javafaq.nu/java- article386.html Malik, D. S. Java Programming	Quiz Hands-on Activity Assignment Recitation
Week 4	Flow Controls  Conditional Statements  Looping Statements  Arrays	Understand how the various flow control statements could be useful in Java programs.  Understand the concepts of conditional statements in Java.  Create Java programs to solve problems using various Flow Control statements and conditional statements	Lecture/Discussion Program Demonstration Recitation/Board work	Wu, Thomas C. An Introduction to Object- Oriented Programming,	Quiz Machine Problem Program Tracing Practical Exam
Week 5	array declaration     memory allocation     array initialization     accessing and storing values in arrays     multidimensional array	Understand the concepts of array.  Learn how to use array in Java.  Create Java programs to solve problems using array.	Lecture/Discussion Program Demonstration Recitation/Board work	Skrien, D. Object-Oriented Design Using Java	Quiz Machine Problem Practical Exam Recitation





Week 6	Objects and Classes in Java Classes Access Modifiers Methods and Attributes Constructors Class Methods and Class Variables	procedural and object oriented programming.  Learn the benefits of OOP.  Learn how to define a class.  Understand the concepts and significance of UML.  Create Java programs to solve problems using array and array functions.	Lecture/Discussion Program Demonstration Recitation/Board work	http://www.javafaq.nu/java- article669.html	Quiz  Machine Problem  Program Tracing  Hands-on Activity
Week 7	Declaring Classes  Methods  String Manipulations  Encapsulation  Types of Java Methods	Create a UML design of a given program.  Understand the concepts of declaring classes.  Understand the java methods.  Learn the concepts of string manipulation in Java.  Create Java programs to solve problems that require different types of Java method.	Lecture/Discussion Program Demonstration Recitation/Board work	_http://www.javafaq.nu/java- article664.html	Long Quiz Machine Problem Hands-on Activity Practical Exam
Week 8	Importance of Inheritance     Importance of     Polymorphism	Understand the concepts of polymorphism.  Learn different way of using inheritance in Java.  Create Java programs to solve problems that require polymorphism	Lecture/Discussion Program Demonstration Recitation/Board work	http://www.javafaq.nu/java- article422.html	Machine Problem Practical Exam Hands-on Activity





	Overloading	and inheritance.			
Week 9					
Week 10	Exception and Assertion     Importance of Exceptions in Java     Customizing a Java Exception     Importance of Assertions in Java programs     Writing Java programs that implements exceptions handling and assertions	Understand the significance and the concepts of exception in Java.  Learn how to create a customized exception.  Understand the concepts of using Assertion in Java.  Differentiate the Exception and	Lecture/Discussion Program Demonstration Recitation/Board work	Wu, Thomas C. An Introduction to Object- Oriented Programming,  http://www.javafaq.nu/java- article562.html	Short Quiz Machine Problem Practical Exam Assignment
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Week 12	OutputStream Classes	Comprehend the applications of I/O streams with Java  Apply the Input and Output Streams with Java	Lecture/Discussion Program Demonstration Recitation/Board work	http://www.javafaq.nu/java- article680.html	Group Work Oral Participation Hands-On Activity Assignment

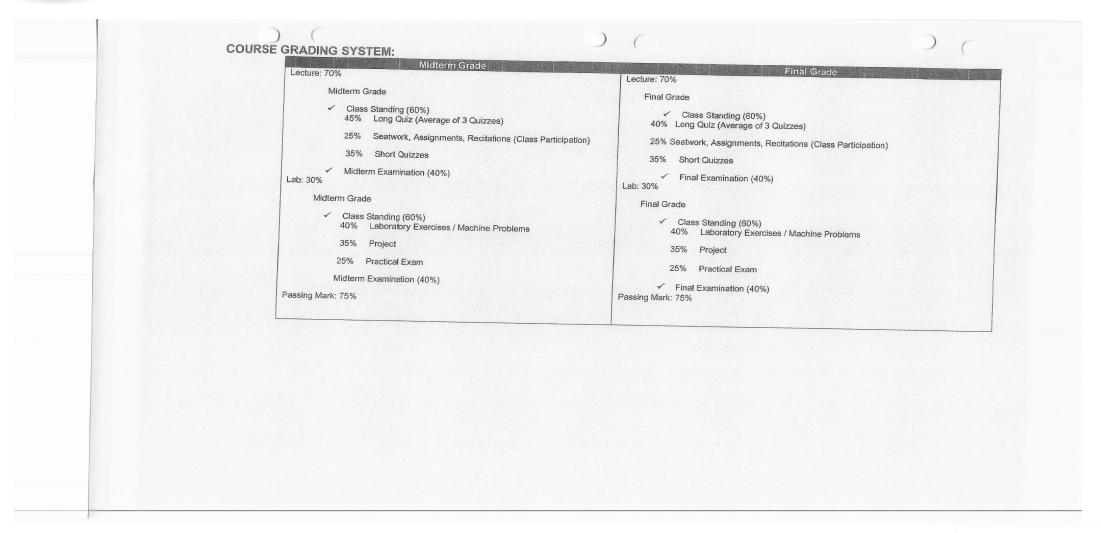




Week 13	GUI Development     AWT Graphical Components     Event Handling     Anonymous Classes	Evaluate the AWT Graphical Components and Event handling Create a Graphical User Interface (GUI)	Lecture/Discussion Program Demonstration Recitation/Board work	http://www.javafaq.nu/java- article672.html  Wu, Thomas C. An Introduction to Object- Oriented Programming	Long Quiz  Machine Proble  Practical Exam
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Week 16	APPLICATION PROJECT PRESENTATION	Culminating activity given to the grouped students to test their mastery of the course by developing application programs utilizing all the theories and concepts acquired	Project Presentation  System Walk-through  Simulation	Application Project Documentation  Developed System	Project Deliberation
Week 17	PRESENTATION	Culminating activity given to the students to test their mastery of the course by developing application programs utilizing all the theories and concepts acquired	Project Presentation  System Walk-through  Simulation	Application Project Documentation Developed System	Project Deliberation
Week 18		FIN	IAL EXAMINATION		











Rev. No.	Description of Champa	REVISION HISTORY			
	Description of Change	Approved by	Effective Date		
1	Format to OBE	Engr. Julius S. Cansino	SY 2017-2018		
	Prepared by:  DR. ARVIN R. DE LA CRUZ  Name of Faculty	Approved by:  ENGR. JULIUS & CANSIN Chairberson  Approved by:  ENGR. GUILLERMO O. BERNABE Dean  DR. MANUEL M. MUHI  Vice President for Academic Affairs	NO		

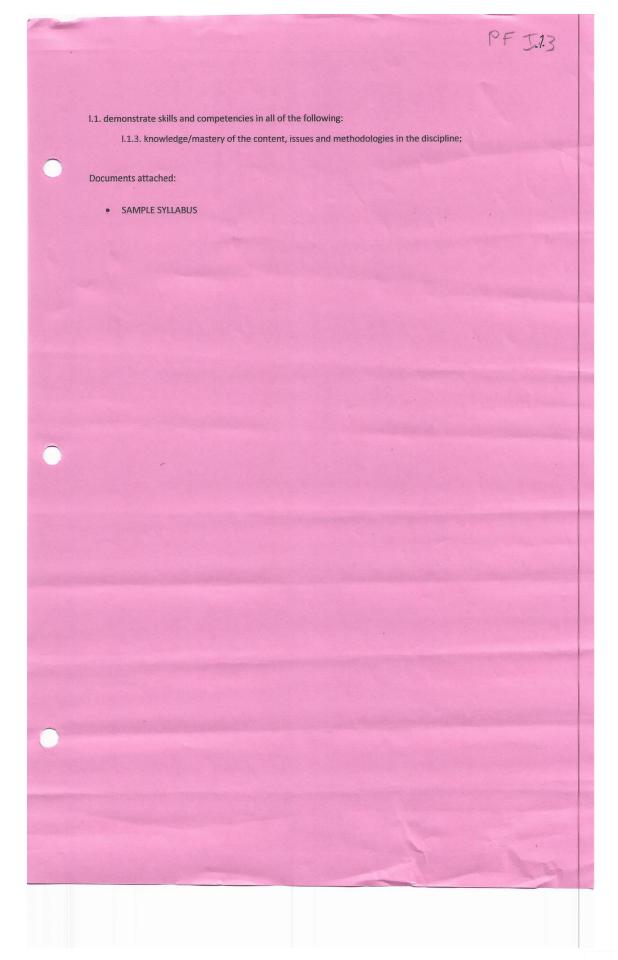




PF 1.13 I.1. demonstrate skills and competencies in all of the following: I.1.3. knowledge/mastery of the content, issues and methodologies in the discipline; Documents attached: SAMPLE SYLLABUS













#### Vision

Clearing the paths while laying new foundations to transform the Polytechnic University of the Philippines into an epistemic community.

#### Mission

Reflective of the great emphasis being given by the country's leadership aimed at providing appropriate attention to the alleviation of the plight of the poor, the development of the plight of the plig citizens, and of the national economy to become globally competitive, the University shall commit its academic resources and manpower to achieve its goals through:

- o Provision of undergraduate and graduate education which meet international standards of quality and excellence;
- o Generation and transmission of knowledge in the broad range of disciplines relevant and responsive to the dynamically changing domestic and international environr o Provision of more equitable access to higher education opportunities to deserving and qualified Filipinos; and
- o Optimization, through efficiency and effectiveness, of social, institutional, and individual returns and benefits derived from the utilization of higher education resources

#### Goals

- 1. Provide quality education through instruction, advance research and extension services.
- 2. Produce world-class professionals as potential industry leaders and job providers.
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- 4. Maintain, upgrade or improve facilities through the applications of engineering technology.

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- 1. Strengthen the Bachelor of Science in Computer Engineering program consistent with global trends;
- 2. Develop the critical thinking and communication skills of students, giving emphasis to research and extension services;
- 3. Enhance the competencies of students to evaluate, assess, design and operate safe, effective, economically-efficient and environmental friendly computer-based system; 4. create a conducive teaching and learning atmosphere with emphasis to Bachelor of Science in Computer Engineering faculty and students' growth and academic freedom;





5. establish network with educational institutions, Industries, GO's and NGO's, local and international, which could serve as:

a. Funding sources and/or partners of researches;

Sources of new technology;

c. Centers for faculty and students' exchange programs and on-the-job trainings; and

d. Grantees of scholarship/additional facilities.

6. conduct continuously action researches on the needs of laboratory and other facilities that could be locally produced or innovated using local materials and adapted technological materials. 7. equip graduates with appropriate knowledge and technical skills imbued with desirable work attitudes and moral values, through enhanced teaching/learning process by multimedia facilities on top of traditional methods;

8. develop faculty as competent mentors and quality researchers through advanced studies and other facets of continuing professional education

Course Title : OBJECT-ORIENTED PROGRAMMING

Course Code : COEN 3444

Course Credit : 4 units

: COEN 3340 (DATA STRUCTURES and ALGORITHM ANALYSIS)

: This course introduces new techniques and concepts of programming. Java will be use as the programming language and as tool to implement object-on programming. Consequently, students will acquaint themselves with new syntax that is used to program Java programs. Object oriented programming as one of the classifications of program mainly introduces the use of objects, methods, variables, abstraction, interface, polymorphism and other object oriented related topics. This course takes as fact that the students have all

1	Institutional Learning Outcomes Creative and Critical Thinking	Program Outcomes	1	Course Objectives
		Use of contemporary problem solving in the analysis, design, and evaluation of computer and software systems, including system integration and implementation.		ter completing the course, the student ust be able to:
2.	Effective Communication	Communicate effectively with the computing community and with society at large (in local and international scenes) about engineering activities by being able to comprehend and write effective reports design documentation	~	Learn the basic syntax and language rul of Java
3.	Strong Service Orientation	make effective presentations, and give and understand clear instructions	1	Understand the different control structure
4.	Community Engagement	Share expertise in literacy, productivity, and livelihood technology to the adopted community		and their functions in programs
5.	Adeptness in the Responsible Use of Technology	Lico the techniques alim.	1	Learn the behavior and concepts of object
		Use the techniques, skills and modern computer engineering tools necessary for engineering practice.		and classes
26	Passion to Life-Long Learning	Engage in life-long learning and an understanding of the need to keep current of the developments in the specific field of practice.	1	Understand the use and the significance
	High Level of Leadership and Organizational Skills	Knowledge and understanding computer engineering and management		encapsulation, polymorphism, inheritance
		principles as a member and a leader in a team, to manage projects and in		



### POLYTECHNIC UNIVERSITY OF THE PHILIPPINES COLLEGE OF ENGINEERING DEPARTMENT

			multidicalalinant and	1			) (
0 0			multidisciplinary environment	<ul> <li>Familiarize themselves with error</li> </ul>			
8. Sense	of Personal and Professional Eth	ics	Recognition of professional, social, and ethical responsibility				handling code
Sense of Nationalism and Global Responsiveness			The broad education nece engineering solutions in globa	Use the different data structures and collections available in the Java stand library  Learn how to read from input streams write to output streams  Create custom GUI using the Java Sw API  Understand the concept behind single multi-threaded applications  Apply the knowledge of object originary or streams and collections.			
							g and programme
URSE PL	AN	Le	earning Outcomes	Methodology	Resou		
		Familiarize Education Orient the	student on Outcome-Based student on the course ading system and classroom	Methodology Orientation Review of the syllabus, learning activities and assessment Getting to know activity	Resou Course S	irces	Assessment None
Week	Topic  Class orientation Discussion of course goals, expected outcomes, course policies and grading system Assigning of Groups and Officers  Object-Oriented Concepts	Familiarize Education Orient the syllabus, gr rules	student on Outcome-Based	Orientation  Review of the syllabus, learning activities and assessment  Getting to know activity  Lecture/Discussion		yllabus faq.nu/java-	Assessment None  Quiz
Week 1	Topic  Class orientation Discussion of course goals, expected outcomes, course policies and grading system Assigning of Groups and Officers	Familiarize Education Orient the syllabus, gr rules Explain the Procedural	student on Outcome-Based student on the course ading system and classroom	Orientation  Review of the syllabus, learning activities and assessment  Getting to know activity	Course S	yllabus faq.nu/java-	Assessment None





	Object-Oriented     Programming Concepts			Java Programming	
Week 3	Java Fundamentals - Anatomy of a Basic Java Program  Comments Primitive Data Types Expressions and Operators Reference Types	Familiarize the Java Language Fundamentals  Compile a basic program using Java Syntax	Lecture/Discussion Program Demonstration Recitation/Board work	http://www.javafaq.nu/java- article386.html Malik, D. S. Java Programming	Quiz Hands-on Activity Assignment Recitation
Week 4	Flow Controls  Conditional Statements  Looping Statements	Understand how the various flow control statements could be useful in Java programs.  Understand the concepts of conditional statements in Java.  Create Java programs to solve problems using various Flow Control statements and conditional statements	Lecture/Discussion Program Demonstration Recitation/Board work	Wu, Thomas C. An Introduction to Object- Oriented Programming,	Quiz  Machine Problem  Program Tracing  Practical Exam
Week 5	arrays     array declaration     memory allocation     array initialization     accessing and storing values in arrays     multidimensional array	Understand the concepts of array.  Learn how to use array in Java.  Create Java programs to solve problems using array.	Lecture/Discussion Program Demonstration Recitation/Board work	Skrien, D. Object-Oriented Design Using Java	Quiz Machine Problem Practical Exam Recitation





Week 6	Objects and Classes in Java Classes Access Modifiers Methods and Attributes Constructors Class Methods and Class Variables	procedural and object oriented programming.  Learn the benefits of OOP.  Learn how to define a class.  Understand the concepts and significance of UML.  Create Java programs to solve problems using array and array functions.  Create a UML design of a given	Lecture/Discussion Program Demonstration Recitation/Board work	http://www.javafaq.nu/java- article669.html	Quiz  Machine Problem  Program Tracing  Hands-on Activity
Week 7	Declaring Classes  • Methods	program.  Understand the concepts of declaring classes.			
	<ul> <li>String Manipulations</li> <li>Encapsulation</li> <li>Types of Java Methods</li> </ul>	Understand the java methods.  Learn the concepts of string manipulation in Java.  Create Java programs to solve problems that require different types of Java method.	Lecture/Discussion Program Demonstration Recitation/Board work	_http://www.javafaq.nu/java- article664.html	Long Quiz Machine Problem Hands-on Activity Practical Exam
Week 8	Importance of Inheritance     Importance of Polymorphism	Understand the concepts of polymorphism.  Learn different way of using inheritance in Java.  Create Java programs to solve problems that require polymorphism	Lecture/Discussion Program Demonstration Recitation/Board work	http://www.javafaq.nu/java- article422.html	Machine Problem Practical Exam Hands-on Activity





	Overloading	and inheritance.			
Week 9		MI	DTERM EXAMINATION		
Week 10	Exception and Assertion     Importance of Exceptions in Java     Customizing a Java Exception     Importance of Assertions in Java programs     Writing Java programs that implements exceptions handling and assertions	Understand the significance and the concepts of exception in Java.  Learn how to create a customized exception.  Understand the concepts of using Assertion in Java.  Differentiate the Exception and	Lecture/Discussion Program Demonstration Recitation/Board work	Wu, Thomas C. An Introduction to Object- Oriented Programming.  http://www.javafaq.nu/java- article562.html	Short Quiz Machine Problem Practical Exam Assignment
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Week 12	OutputStream Classes	Comprehend the applications of I/O streams with Java  Apply the Input and Output Streams with Java	Lecture/Discussion Program Demonstration Recitation/Board work	http://www.javafaq.nu/java- article680.html	Group Work Oral Participation Hands-On Activity Assignment

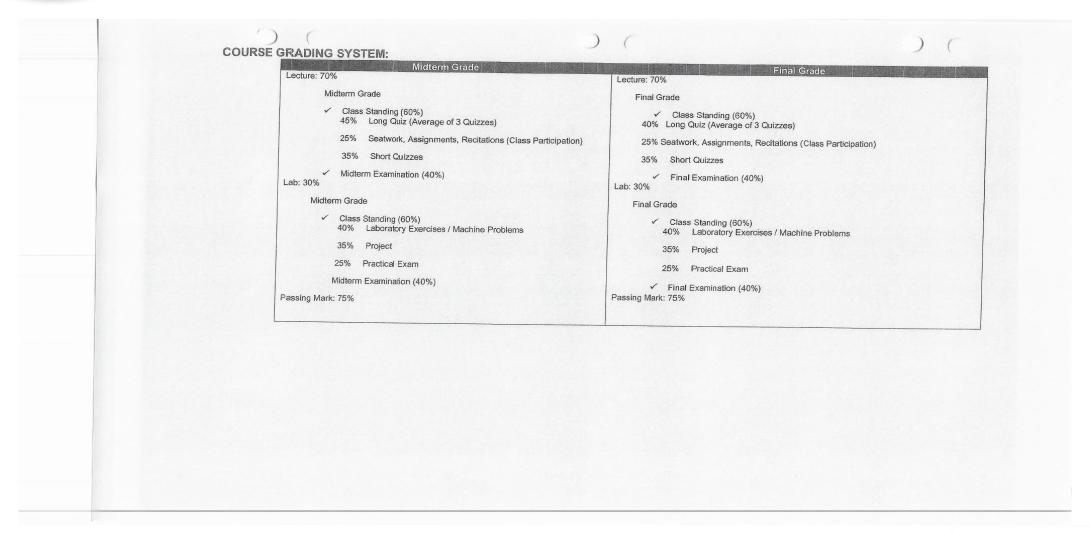




Week 13	GUI Development	Evaluate the AWT Graphical			
Week 13	AWT Graphical Components     Event Handling     Anonymous Classes	Components and Event handling Create a Graphical User Interface (GUI)	Lecture/Discussion Program Demonstration Recitation/Board work	http://www.javafaq.nu/java- article672.html  Wu, Thomas C.  An Introduction to Object-	Long Quiz Machine Probler Practical Exam
Week 14	Thread  Thread Lifecycle  Thread Synchronization  Critical Sections	Understand the concepts of threading in Java.  Create Java program to solve problems that require multi-threading in Java.	Lecture/Discussion Program Demonstration Recitation/Board work	Oriented Programming  http://www.javafaq.nu/java- article673.html  Malik, D. S.	Short Quiz Machine Problen
Week 15	Other Java Classes	Evaluate Classes used in Java	Lecture/Discussion	Java Programming	Program Tracing
	Abstract Class     Interfaces	Create an Abstract Class and Interfaces	Program Demonstration Recitation/Board work	http://www.javafaq.nu/java- article422.html Malik, D. S. Java Programming	Oral Participation Hands-On Activity Practical Exam
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Rev. No.	Description of Change	Approved by	Effective Date
1	Format to OBE	Engr. Julius S. Cansino	SY 2017-2018
	Prepared by:  DR. ARVIN'R. DE LA CRUZ  Name of Faculty	Approved by:  ENGR. JULIUS & CANS Chapperson  Approved by:  ENGR. GUILLERMO O. BERNABE Dean  DR. MANUEL M. MUHI  Vice President for Academic Affairs	SINO





P.F. I.1. 4 I.1. demonstrate skills and competencies in all of the following: I.1.4. proficiency in the use of the language of instruction Documents attached: SAMPLE SYLLABUS MATIRX OF FACULTY EVALUATION





Sample Syllabus







Republic of the Philippines POLYTECHNIC UNIVERSITY OF THE PHILIPPINES College of Engineering Department of Computer Engineering

#### Vision

Clearing the paths while laying new foundations to transform the Polytechnic University of the Philippines into an epistemic community.

#### Mission

Reflective of the great emphasis being given by the country's leadership aimed at providing appropriate attention to the alleviation of the plight of the poor, the development citizens, and of the national economy to become globally competitive, the University shall commit its academic resources and manpower to achieve its goals through:

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			multidisciplinary environment				F	) (	
0 Cana	10 1 15							e themselves with error and andling code	
8. Sense	e of Personal and Professional Ethi	ics	Recognition of professional, s	social, and ethical responsibility	1	,	жерын п	anding code	
o. Sense	e of Nationalism and Global Respor	nsiveness	The broad education nece engineering solutions in globa	ssary to understand the implemental and societal context.	pact of computer	✓ Use the different data structures and collections available in the Java stand library			
							<ul> <li>Learn how to read from input streams a write to output streams</li> </ul>		
						✓ C	reate custo Pl	om GUI using the Java Swir	
						m ✓ A	ulti-threade	the concept behind single a ed applications (nowledge of object orien g in writing Java programs	
URSE PL	AN Topic	Le	earning Outcomes	Methodology	Resou			Assocomoré	
		Familiarize Education Orient the	estudent on Outcome-Based estudent on the course rading system and classroom	Methodology Orientation Review of the syllabus, learning activities and assessment Getting to know activity	Resou Course S	irces	s	Assessment None	
Week	Topic  Class orientation Discussion of course goals, expected outcomes, course policies and grading system Assigning of Groups and Officers  Object-Oriented Concepts	Familiarize Education  Orient the syllabus, gr rules  Explain the	student on Outcome-Based	Orientation  Review of the syllabus, learning activities and assessment		rces yllabu faq.nu			
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Week 8	Polymorphism and Inheritance  Importance of Inheritance  Importance of Polymorphism  Methods overriding and	Understand the concepts of polymorphism.  Learn different way of using inheritance in Java.  Create Java programs to solve problems that require polymorphism	Lecture/Discussion Program Demonstration Recitation/Board work	http://www.javafaq.nu/java- article422.html	Machine Problen Practical Exam Hands-on Activity





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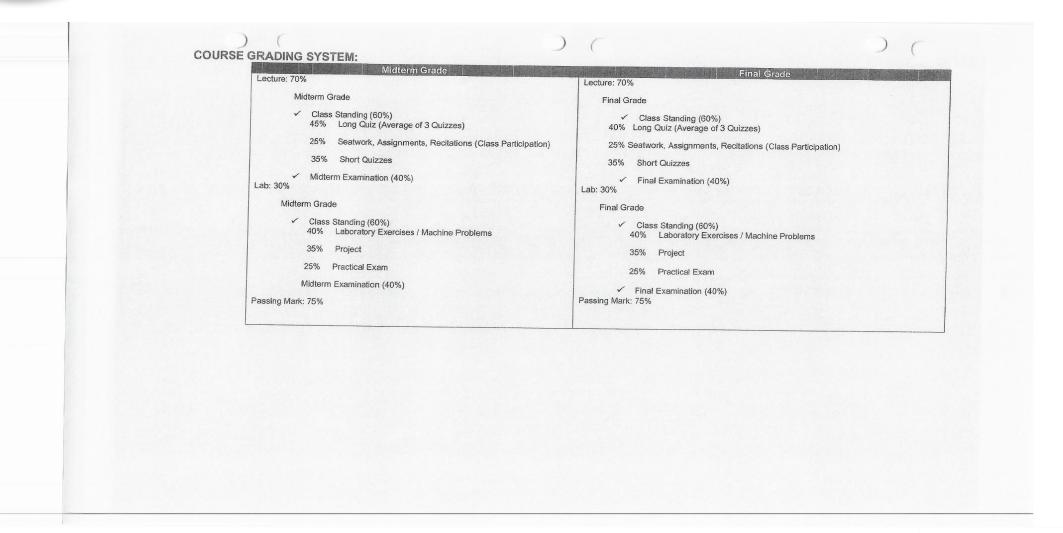




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Week 18		S P S S S S S S S S S S S S S S S S S S	IAL EXAMINATION		







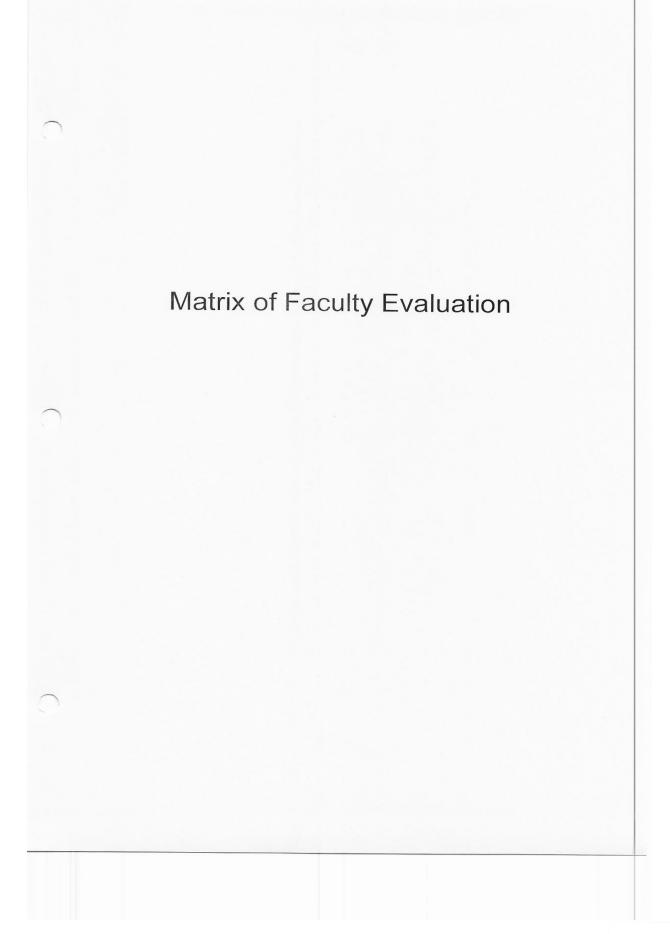




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Rev. No.	Description of Change	Approved by	Effective Date
1	Format to OBE	Engr. Julius S. Cansino	SY 2017-2018
	Prepared by:  DR. ARVIM R. DE LA CRUZ  Name of Faculty	Noted by:  ENGR. JULIUS & CANSINO Challerson  Approved by:  ENGR. GUILLERMO O. BERNABE Dean	
		DR. MANUEL M. MUHI Vice President for Academic Affairs	











Faculty Online Evaluation SUMMARY OF RESULTS Second Semester S.Y. 1819 Over-all Rating Interpretation COLLEGE OF ENGINEERING 84.8581 VERY SATISFACTORY Supervisor Evaluator 1 Supervisor Evaluator 2 Student Evaluation Self Evaluation Name of Faculty Over-all Evaluation Rating Interpretation Rating Interpretation Rating Interpretation Rating ADO, REMEDIOS G. Interpretation Rating 96.8000 OUTSTANDING 100.0000 Interpretation OUTSTANDING OUTSTANDING 99.2000 OUTSTANDING VERY OUTSTANDING ARTIFICIO, EDCEL 81.6000 VERY 80.0000 VERY 81.8126 SATISFACTORY 87.2000 SATISFACTORY SATISFACTORY 81.5888 SATISFACTORY VERY SATISFACTORY VERY CABRERA, KEVIN MICHAEL A. 81.6000 80.0000 VERY 81.3358 SATISFACTORY VERY SATISFACTORY No Evaluation SATISFACTORY 81.2551 SATISFACTORY CANLAS, ARLENE B. 92.0000 VERY VERY OUTSTANDING 88.1256 VERY SATISFACTORY 100.0000 OUTSTANDING SATISFACTORY 88.9679 SATISFACTORY CANSINO, JULIUS S 100.0000 OUTSTANDING VERY No Evaluation 78.1638 VERY OUTSTANDING 74.7147 SATISFACTORY VERY SATISFACTORY CHIN, FRANK ANTHONY 80.0000 VERY 71.2000 81.9528 SATISFACTORY 99.2000 VERY SATISFACTORY OUTSTANDING SATISFACTORY 80.4870 SATISFACTORY DE LA CRUZ, ARVIN 94.0000 OUTSTANDING VERY 99.2000 OUTSTANDING 86.7844 100.0000 OUTSTANDING SATISFACTORY 89 4691 SATISFACTORY DELA CRUZ, JOHN 93.2000 VERY OUTSTANDING 95 6000 OUTSTANDING 82.8416 100 0000 OUTSTANDING SATISFACTORY SATISFACTORY FERNANDO, RONALD D 100.0000 OUTSTANDING VERY 100.0000 OUTSTANDING 81.8126 VERY 100,0000 OUTSTANDING SATISFACTORY 87.2688 SATISFACTORY KHAN, MA, LEONA VERY 77 6000 VERY 77.6000 75.1258 SATISFACTORY VERY SATISFACTORY No Evaluation SATISFACTORY 75.8681 VERY SATISFACTORY LEGARDA, MARY ANN VILLA VERY 86.8000 75.6000 SATISFACTORY 64,4602 SATISFACTORY 99.2000 SATISFACTORY OUTSTANDING 70.0421 SATISFACTORY 12 LORICO, JULIAN L. 92.0000 OUTSTANDING 92.8000 OUTSTANDING 77.9552 100.0000 OUTSTANDING SATISFACTORY MADRIGALEJOS, DANILO JR SATISFACTORY 13 VERY 82.0000 80.0000 SATISFACTORY 91.3764 OUTSTANDING SATISFACTORY VERY No Evaluation 88.3635 MAHAGUAY, ROLITO LACEDA 100.0000 OUTSTANDING 100.0000 SATISFACTORY OUTSTANDING 92.5694 OUTSTANDING 100.0000 OUTSTANDING 94.7986 OUTSTANDING 15 NATIVIDAD, FERDINAND O 100.0000 VERY OUTSTANDING 100.0000 OUTSTANDING 79.9004 100.0000 OUTSTANDING SATISFACTORY SATISFACTORY NATIVIDAD, MARK KERVIN 100.0000 OUTSTANDING VFRY 94.0000 OUTSTANDING 89.4376 100.0000 OUTSTANDING SATISFACTORY 92.0063 OUTSTANDING OQUINDO, FLORINDA H 100.0000 OUTSTANDING 100.0000 OUTSTANDING 83.8172 98.8000 OUTSTANDING 88.6720 SATISFACTORY SATISFACTORY PAJABERA, ORLANDO 100.0000 OUTSTANDING 100.0000 VERY OUTSTANDING 90.4034 98.4000 OUTSTANDING SATISFACTORY 93.2824 OUTSTANDING 1 of 2





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					S	Faculty Online Ev. SUMMARY OF R Second Semester S.	ESULTS				,	
	19	Name of Faculty REYES, LUTZER UGTO RODRIGUEZ, JOSHUA	Rating 100.0000	risor Evaluator 1 Interpretation OUTSTANDING	Super Rating 100.0000	visor Evaluator 2 Interpretation OUTSTANDING	Stud Rating 94.6384	lent Evaluation Interpretation OUTSTANDING	Sel Rating 100.0000	f Evaluation Interpretation OUTSTANDING	Rating	-all Evaluation Interpretation
		BENJAMIN	100.0000	OUTSTANDING	100.0000	OUTSTANDING	87.7486	VERY SATISFACTORY	100.0000	OUTSTANDING	96.2469 91.4240	OUTSTANDING
	21	SUNGA, BOB MATHEW	80.0000	VERY SATISFACTORY	80.0000	VERY SATISFACTORY	79.8984	VERY		Evaluation		OUTSTANDING
	22	TENERIFE JR, PEDRITO	100.0000	OUTSTANDING	100.0000	OUTSTANDING	90.5604	SATISFACTORY VERY			79.9289	SATISFACTOR
	23	TRIA, ROMAN ANGELO CARPIO	80.0000	VERY	80.0000	VERY		SATISFACTORY VERY	100.0000	OUTSTANDING	93.3923	OUTSTANDING
	24	VELASCO, ANTONIO Y.	96.0000	SATISFACTORY		SATISFACTORY	79.2852	SATISFACTORY	88.8000	VERY SATISFACTORY	79.4996	VERY SATISFACTORY
	25	VERZO, ALLAN		OUTSTANDING VERY	100.0000	OUTSTANDING	77.74	VERY SATISFACTORY	100.0000	OUTSTANDING	83.6180	VERY
	20	VLNZO, ALLAN	90.0000	SATISFACTORY	63.2000	SATISFACTORY	54.0234	SATISFACTORY	94.8000	OUTSTANDING	62.1364	SATISFACTORY
					Thi	s document is system g	enerated				02.1304	SATISFACTORY
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Faculty Online Evaluation SUMMARY OF RESULTS First Semester S.Y. 1819

COLLEGE OF ENGINEERING								ORY		
				isor Evaluator 2	Stud	ent Evaluation	Sel	f Evaluation	Over	-all Evaluation
Name of Faculty	Rating	Interpretation	Rating	Interpretation	Rating	Interpretation	Rating	Interpretation	Rating	Interpretation
ADO, REMEDIOS G.	94.0000	OUTSTANDING	100.0000	OUTSTANDING	84.881	VERY SATISFACTORY	92.0000	OUTSTANDING	88.2167	VERY SATISFACTORY
ARTIFICIO, EDCEL	92.0000	OUTSTANDING	75.2000	VERY SATISFACTORY	76.434	VERY SATISFACTORY	77.6000	VERY SATISFACTORY	79.4238	VERY SATISFACTORY
CANLAS, ARLENE B.	92.0000	OUTSTANDING	88.4000	VERY SATISFACTORY	72.491	VERY SATISFACTORY	100.0000	OUTSTANDING	77.9837	VERY SATISFACTORY
CANSINO, JULIUS S	100.0000	OUTSTANDING	No	Evaluation	81.5388	VERY SATISFACTORY	100.0000	OUTSTANDING	87.0772	VERY SATISFACTORY
CHIN, FRANK ANTHONY	91.2000	OUTSTANDING	80.0000	VERY SATISFACTORY	67.6238	SATISFACTORY	100.0000	OUTSTANDING	73.5767	VERY SATISFACTORY
DE LA CRUZ, ARVIN	100.0000	OUTSTANDING	100.0000	OUTSTANDING	86.4334	VERY SATISFACTORY	100.0000	OUTSTANDING	90.5034	VERY SATISFACTORY
DELA CRUZ, JOHN	94.8000	OUTSTANDING	100.0000	OUTSTANDING	83.2676	VERY SATISFACTORY	100.0000	OUTSTANDING	87.2473	VERY SATISFACTORY
DELOS REYES, NORMAN DAVID FARISCAL	92.0000	OUTSTANDING	86.4000	VERY SATISFACTORY	69.6626	SATISFACTORY	100.0000	OUTSTANDING	75.8038	VERY SATISFACTORY
FERNANDO, RONALD D	98.0000	OUTSTANDING	100.0000	OUTSTANDING	82.2072	SATISFACTORY	100.0000	OUTSTANDING	87.1450	VERY SATISFACTORY
KHAN, MA. LEONA	92.0000	OUTSTANDING	75.2000	VERY SATISFACTORY	73.9648	SATISFACTORY	90.4000	VERY SATISFACTORY	77.6954	VERY SATISFACTORY
LEGARDA, MARY ANN VILLA	91.2000	OUTSTANDING	87.6000	VERY SATISFACTORY	72.4466	SATISFACTORY	100.0000	OUTSTANDING	77.7126	VERY SATISFACTORY
LORICO, JULIAN L.	94.8000	OUTSTANDING	100.0000	OUTSTANDING	81.7196	SATISFACTORY	100.0000	OUTSTANDING	86.1637	VERY SATISFACTORY
MADRIGALEJOS, DANILO JR.	93.2000	OUTSTANDING	88.8000	VERY SATISFACTORY	88.6706	VERY SATISFACTORY	99.2000	OUTSTANDING	89.5894	VERY SATISFACTORY
MAHAGUAY, ROLITO LACEDA	100.0000	OUTSTANDING	100.0000	OUTSTANDING	91.8212	OUTSTANDING	100.0000	OUTSTANDING	94.2748	OUTSTANDING
NATIVIDAD, FERDINAND O	94.8000	OUTSTANDING	100.0000	OUTSTANDING	74.9954	SATISFACTORY	100.0000	OUTSTANDING	81.4568	VERY SATISFACTORY
NATIVIDAD, MARK KERVIN	94.0000	OUTSTANDING	88.8000	VERY SATISFACTORY	90.8962	VERY SATISFACTORY	100.0000	OUTSTANDING	91.3073	OUTSTANDING
OQUINDO, FLORINDA H	100.0000	OUTSTANDING	100.0000	OUTSTANDING	80.5744	VERY SATISFACTORY	92.0000	OUTSTANDING	86.4021	VERY SATISFACTORY
	ADO, REMEDIOS G. ARTIFICIO, EDCEL CANLAS, ARLENE B. CANSINO, JULIUS S CHIN, FRANK ANTHONY DE LA CRUZ, ARVIN DELA CRUZ, JOHN DELOS REYES, NORMAN DAVID FARISCAL FERNANDO, RONALD D KHAN, MA. LEONA LEGARDA, MARY ANN VILLA LORICO, JULIAN L. MADRIGALEJOS, DANILO JR. C. MAHAGUAY, ROLITO LACEDA NATIVIDAD, FERDINAND O	Name of Faculty         Supervice           ADO, REMEDIOS G.         94.0000           ARTIFICIO, EDCEL         92.0000           CANLAS, ARLENE B.         92.0000           CANSINO, JULIUS S         100.0000           CHIN, FRANK ANTHONY         91.2000           DE LA CRUZ, ARVIN         100.0000           DELA CRUZ, JOHN         94.8000           DELOS REYES, NORMAN         92.0000           DELOS REYES, NORMAN         92.0000           KHAN, MA. LEONA         92.0000           LEGARDA, MARY ANN VILLA         91.2000           LORICO, JULIAN L.         94.8000           MADRIGALEJOS, DANILO JR.         93.2000           NATIVIDAD, FERDINAND O         94.8000           NATIVIDAD, MARK KERVIN         94.0000	Name of Faculty ADO, REMEDIOS G. ARTIFICIO, EDCEL CANLAS, ARLENE B. CANSINO, JULIUS S CHIN, FRANK ANTHONY DE LA CRUZ, ARVIN DELA CRUZ, JOHN DAVID FARISCAL FERNANDO, RONALD D KHAN, MA. LEONA LEGARDA, MARY ANN VILLA LORICO, JULIAN L. MADRIGALEJOS, DANILO JR. C. MAHAGUAY, ROLITO LACEDA NATIVIDAD, MARK KERVIN P94.0000 OUTSTANDING	Name of Faculty         Supervisor Evaluator 1 Rating         Supervisor Evaluator 1 Interpretation         Supervisor Rating           ADO, REMEDIOS G.         94.0000         OUTSTANDING         100.0000           ARTIFICIO, EDCEL         92.0000         OUTSTANDING         75.2000           CANLAS, ARLENE B.         92.0000         OUTSTANDING         88.4000           CANSINO, JULIUS S         100.0000         OUTSTANDING         80.0000           CHIN, FRANK ANTHONY         91.2000         OUTSTANDING         100.0000           DE LA CRUZ, ARVIN         100.0000         OUTSTANDING         100.0000           DELA CRUZ, JOHN         94.8000         OUTSTANDING         100.0000           DELOS REYES, NORMAN DAVID FARISCAL         92.0000         OUTSTANDING         86.4000           FERNANDO, RONALD D         98.0000         OUTSTANDING         100.0000           KHAN, MA, LEONA         92.0000         OUTSTANDING         75.2000           LEGARDA, MARY ANN VILLA         91.2000         OUTSTANDING         37.6000           LORICO, JULIAN L.         94.8000         OUTSTANDING         100.0000           MAHAGUAY, ROLITO LACEDA         100.0000         OUTSTANDING         100.0000           NATIVIDAD, FERDINAND O         94.8000         OUTS	Name of Faculty         Supervisor Evaluator 1 Rating         Supervisor Evaluator 2 Rating         Supervisor Evaluator 2 Interpretation           ADO, REMEDIOS G.         94.0000         OUTSTANDING         100.0000         OUTSTANDING           ARTIFICIO, EDCEL         92.0000         OUTSTANDING         75.2000         VERY SATISFACTORY VERY SATISFACTORY VERY SATISFACTORY VERY SATISFACTORY           CANLAS, ARLENE B.         92.0000         OUTSTANDING         88.4000         SATISFACTORY SATISFACTORY           CANSINO, JULIUS S         100.0000         OUTSTANDING         No Evaluation           CHIN, FRANK ANTHONY         91.2000         OUTSTANDING         80.0000         VERY SATISFACTORY SATISFACTORY           DE LA CRUZ, ARVIN         100.0000         OUTSTANDING         100.0000         OUTSTANDING         0.0000         OUTSTANDING           DELA CRUZ, JOHN         94.8000         OUTSTANDING         100.0000         OUTSTANDING         VERY SATISFACTORY SATISFACTORY SATISFACTORY           DELOS REYES, NORMAN DAVID FARISCAL         98.0000         OUTSTANDING         100.0000         OUTSTANDING         100.0000         OUTSTANDING           KHAN, MA, LEONA         92.0000         OUTSTANDING         75.2000         SATISFACTORY SATISFACTO	Name of Faculty   Supervisor Evaluator 1   Rating   Interpretation   Interpretation   Rating   Interpretation   Interpretation   Rating   Interpretation   Interpretation	COLLEGE OF ENGINEERING         85.7082         VERY           Name of Faculty         Supervisor Evaluator 1 Rating         Supervisor Evaluator 2 Interpretation         Student Evaluation Rating         VERY           ADO, REMEDIOS G.         94.0000         OUTSTANDING         100.0000         OUTSTANDING         84.881         SATISFACTORY           ARTIFICIO, EDCEL         92.0000         OUTSTANDING         75.2000         VERY SATISFACTORY         76.434         VERY SATISFACTORY           CANSINO, JULIUS S         100.0000         OUTSTANDING         No Evaluation         81.5388         SATISFACTORY           CHIN, FRANK ANTHONY         91.2000         OUTSTANDING         80.0000         VERY SATISFACTORY         SATISFACTORY           DE LA CRUZ, ARVIN         100.0000         OUTSTANDING         100.0000         OUTSTANDING         86.4000         SATISFACTORY           DELOS REYES, NORMAN DAVID FARISCAL         92.0000         OUTSTANDING         86.4000         VERY SATISFACTORY         SATISFACTORY           KHAN, MA. LEONA         92.0000         OUTSTANDING         75.2000         VERY SATISFACTORY         SATISFACTORY           KHAN, MA. LEONA         92.0000         OUTSTANDING         75.2000         VERY SATISFACTORY         SATISFACTORY         SATISFACTORY	COLLEGE OF ENGINEERING         85.7082         VERY SATISFACTORY SATISFACTORY Rating Interpretation Rating Interpretation Rating Interpretation Rating Interpretation Rating Interpretation Rating Interpretation Part Rating Interpretation Rating Interpretation Rating Interpretation Part Rating Interpretation Rating Interpretation Part Part Part Part Part Part Part Part	Name of Faculty   Name of Faculty   Rating   Interpretation   Interpretation   Interpretation   Interpretation   Interpretation   Interpretation   Interpretation   Interpr	Name of Faculty   Superviscr Evaluator 1   Superviscr Evaluator 2   Rating Interpretation   Pacing







#### Faculty Online Evaluation SUMMARY OF RESULTS First Semester S.Y. 1819

		Supervisor Evaluator 1		Superv	Supervisor Evaluator 2 Studer		Student Evaluation		Self Evaluation		Over-all Evaluation		
	Name of Faculty	Rating	Interpretation	Rating	Interpretation	Rating	Interpretation	Rating	Interpretation	Rating	Interpretation		
18	PAJABERA, ORLANDO	100.0000	OUTSTANDING	100.0000	OUTSTANDING	88.9388	VERY SATISFACTORY	96.0000	OUTSTANDING	92.2572	OUTSTANDING		
19	REYES. LUTZER UGTO	98.0000	OUTSTANDING	100.0000	OUTSTANDING	92.113	OUTSTANDING	100.0000	OUTSTANDING	94.0791	OUTSTANDING		
20	RODRIGUEZ, JOSHUA BENJAMIN	97.2000	OUTSTANDING	100.0000	OUTSTANDING	85.2712	VERY SATISFACTORY	100.0000	OUTSTANDING	89.1298	VERY SATISFACTORY		
21	SAWI, CHRISTOPHER M.	94.0000	OUTSTANDING	89.6000	VERY SATISFACTORY	91.1376	OUTSTANDING	100.0000	OUTSTANDING	91.5563	OUTSTANDING		
22	SUNGA, BOB MATHEW	94.0000	OUTSTANDING	80.0000	VERY SATISFACTORY	94.4314	OUTSTANDING	No	Evaluation	92.9020	OUTSTANDING		
23	TENERIFE JR, PEDRITO	100.0000	OUTSTANDING	100.0000	OUTSTANDING	83.3844	VERY SATISFACTORY	100.0000	OUTSTANDING	88.3691	VERY SATISFACTORY		
24	TRIA, ROMAN ANGELO	94.0000	OUTSTANDING	90.0000	VERY SATISFACTORY	87.9336	VERY SATISFACTORY	83.2000	VERY SATISFACTORY	89.3535	VERY SATISFACTORY		
25	VELASCO, ANTONIO Y.	100.0000	OUTSTANDING	100.0000	OUTSTANDING	72.6726	VERY SATISFACTORY	100.0000	OUTSTANDING	80.8708	VERY SATISFACTORY		
26	VERZO, ALLAN	91.2000	OUTSTANDING	78.0000	VERY SATISFACTORY	74.6778	VERY SATISFACTORY	96.4000	OUTSTANDING	78.3145	VERY SATISFACTORY		

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2 of 2





# Faculty Online Evaluation SUMMARY OF RESULTS Second Semester S.Y. 1718 Over-all Rating

Interpretation

		COLLEG	E OF ENGINEERING	3		Over-all 82.04		SATISFACTO	DRY		
	Name of Faculty ADO, REMEDIOS G.	Superv Rating 100.0000	isor Evaluator 1 Interpretation OUTSTANDING	Supervi Rating 100,0000	isor Evaluator 2 Interpretation OUTSTANDING	Stude Rating 91.038	ent Evaluation Interpretation OUTSTANDING	Self Rating 99.2000	Evaluation Interpretation OUTSTANDING	Over- Rating 93.7266	all Evaluation Interpretation OUTSTANDING
2	ARTIFICIO, EDCEL	100.0000	OUTSTANDING	88.0000	VERY SATISFACTORY	90.3662	VERY SATISFACTORY	91.6000	OUTSTANDING	92.0563	OUTSTANDING
3	CABRERA, KEVIN MICHAEL A.	80.0000	VERY SATISFACTORY	80.0000	VERY SATISFACTORY	78.27	VERY SATISFACTORY	100.0000	OUTSTANDING	78.7890	VERY SATISFACTORY VERY
4	CANLAS, ARLENE B.	80.0000	VERY SATISFACTORY	100.0000	OUTSTANDING	70.9544	SATISFACTORY	100.0000	OUTSTANDING	75.6681	SATISFACTORY VERY
5	CANSINO, JULIUS S	100.0000	OUTSTANDING	No	Evaluation	78.99	VERY SATISFACTORY	100.0000	OUTSTANDING	85.2930	SATISFACTORY
6	CHIN, FRANK ANTHONY	80.0000	VERY SATISFACTORY	89.6000	VERY SATISFACTORY	79.473	VERY SATISFACTORY	99.2000	OUTSTANDING	80.5911	VERY SATISFACTORY VERY
7	DE LA CRUZ. ARVIN	92.8000	OUTSTANDING	100.0000	OUTSTANDING	86.6644	VERY SATISFACTORY	100.0000	OUTSTANDING	89.2251	SATISFACTORY
8	DELA CRUZ, JOHN	No	Evaluation	No	Evaluation	89.4924	VERY SATISFACTORY	96.0000	OUTSTANDING	62.6447	SATISFACTORY
9	DELOS REYES, NORMAN DAVID FARISCAL	80.0000	VERY SATISFACTORY	84.8000	VERY SATISFACTORY	70.4004	SATISFACTORY	88.0000	VERY SATISFACTORY	73.7603	VERY SATISFACTORY
10	FERNANDO, RONALD D	88.0000	VERY SATISFACTORY	100.0000	OUTSTANDING	94.0466	OUTSTANDING	100.0000	OUTSTANDING	93.4326	OUTSTANDING
11	KHAN, MA. LEONA	80.0000	VERY SATISFACTORY	78.4000	VERY SATISFACTORY	69.4284	SATISFACTORY	No	Evaluation	72.4399	VERY SATISFACTORY
12	LEGARDA, MARY ANN VILLA	80.0000	VERY SATISFACTORY	79.2000	VERY SATISFACTORY	58.21	SATISFACTORY	No	Evaluation	64.6670	SATISFACTORY
13	LORICO, JULIAN L.	100.0000	OUTSTANDING	100.0000	OUTSTANDING	82.152	VERY SATISFACTORY	100.0000	OUTSTANDING	87.5064	VERY SATISFACTORY
14	MADRIGALEJOS, DANILO JR.	80.0000	VERY SATISFACTORY	80.0000	VERY SATISFACTORY	83.417	VERY SATISFACTORY	No	Evaluation	82.3919	VERY SATISFACTORY
15	C. MAHAGUAY, ROLITO LACEDA	100.0000	OUTSTANDING	100.0000	OUTSTANDING	92.8298	OUTSTANDING	100.0000	OUTSTANDING	94.9809	OUTSTANDING
16	MANALO, RICO M.	60.0000	SATISFACTORY	71.6000	VERY SATISFACTORY	70.759	SATISFACTORY	100.0000	OUTSTANDING	68.6913	SATISFACTORY
17	NATIVIDAD, FERDINAND O	100.0000	OUTSTANDING	100.0000	OUTSTANDING	74.836	VERY SATISFACTORY	100.0000	OUTSTANDING	82.3852	VERY SATISFACTORY
18	NATIVIDAD, MARK KERVIN	80.0000	VERY SATISFACTORY	80.0000	VERY SATISFACTORY	86.9062	VERY SATISFACTORY	100.0000	OUTSTANDING	84.8343	VERY SATISFACTORY
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Faculty Online Evaluation SUMMARY OF RESULTS Second Semester S.Y. 1718

		Supervi	isor Evaluator 1	Supervi	isor Evaluator 2	Stude	ent Evaluation	Self	Evaluation	Over-	all Evaluation
	Name of Faculty	Rating	Interpretation	Rating	Interpretation	Rating	Interpretation	Rating	Interpretation	Rating	Interpretation
19	OQUINDO, FLORINDA H	100.0000	OUTSTANDING	100.0000	OUTSTANDING	76.8968	VERY SATISFACTORY	100.0000	OUTSTANDING	83.8278	VERY SATISFACTORY
20	PAJABERA, ORLANDO	100.0000	OUTSTANDING	100.0000	OUTSTANDING	89.9204	VERY SATISFACTORY	98.4000	OUTSTANDING	92.9443	OUTSTANDING
21	PANGILINAN, KERUBIN	60.0000	SATISFACTORY	67.2000	SATISFACTORY	71.9958	VERY SATISFACTORY	85.6000	VERY SATISFACTORY	69.1171	SATISFACTORY
22	REYES, LUTZER UGTO	100.0000	OUTSTANDING	100.0000	OUTSTANDING	92.3382	OUTSTANDING	100.0000	OUTSTANDING	94.6367	OUTSTANDING
23	RODRIGUEZ. JOSHUA BENJAMIN	100.0000	OUTSTANDING	100.0000	OUTSTANDING	89.366	VERY SATISFACTORY	100.0000	OUTSTANDING	92.5562	OUTSTANDING
24	SAWI, CHRISTOPHER M.	80.0000	VERY SATISFACTORY	80.0000	VERY SATISFACTORY	92.8966	OUTSTANDING	100.0000	OUTSTANDING	89.0276	VERY SATISFACTORY
25	SERVIANO, AZDIE	60.0000	SATISFACTORY	65.6000	SATISFACTORY	69.1738	SATISFACTORY	60.0000	SATISFACTORY	66.9817	SATISFACTORY
26	TENERIFE JR, PEDRITO	100.0000	OUTSTANDING	100.0000	OUTSTANDING	88.2376	VERY SATISFACTORY	100.0000	OUTSTANDING	91.7663	OUTSTANDING
27	TRIA, ROMAN ANGELO	80.0000	VERY SATISFACTORY	80.0000	VERY SATISFACTORY	90.0558	VERY SATISFACTORY	80.4000	VERY SATISFACTORY	87.0391	VERY SATISFACTORY
28	VELASCO, ANTONIO Y.	100.0000	OUTSTANDING	100.0000	OUTSTANDING	78.1446	VERY SATISFACTORY	100.0000	OUTSTANDING	84.7012	VERY SATISFACTORY
29	VERZO, ALLAN	60.0000	SATISFACTORY	78.4000	VERY SATISFACTORY	62.6746	SATISFACTORY	100.0000	OUTSTANDING	63.7122	SATISFACTORY

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					SU	Faculty Online Evalu UMMARY OF RES First Semester S.Y.	SULTS					
TO THE PARTY OF TH			COLLEG	E OF ENGINEERING			Over-all 80.74		erpretation SATISFACTO	RY		
	1	Name of Faculty ADO, REMEDIOS G.	Superv Rating 100.0000	isor Evaluator 1 Interpretation OUTSTANDING	Superv Rating 100.0000	risor Evaluator 2 Interpretation OUTSTANDING	Stude Rating 96.0716	ent Evaluation Interpretation OUTSTANDING	Self Rating 98.4000	Evaluation Interpretation OUTSTANDING	Over- Rating 97.2501	all Evaluation Interpretation OUTSTANDING VERY
	2	ARTIFICIO, EDCEL	79.2000	VERY SATISFACTORY	91.2000	OUTSTANDING	90.4918	VERY SATISFACTORY	91.6000	OUTSTANDING	88.3043	SATISFACTOR'
	3	CABRERA, KEVIN MICHAEL A.	79.2000	VERY SATISFACTORY	84 0000	VERY SATISFACTORY	80.219	VERY SATISFACTORY	96.8000	OUTSTANDING	80.3933	SATISFACTOR
	4	CANLAS, ARLENE B.	80.0000	VERY SATISFACTORY	100.0000	OUTSTANDING	78.4648	VERY SATISFACTORY	100.0000	OUTSTANDING	80.9254	VERY SATISFACTOR
	5	CANSINO, JULIUS S	100.0000	OUTSTANDING	No	o Evaluation	69.6612	SATISFACTORY	100.0000	OUTSTANDING	78.7628	VERY SATISFACTOR
	6	CECOGO, JOHN VINCENT	80.0000	VERY SATISFACTORY	90.4000	VERY SATISFACTORY	74.05	VERY SATISFACTORY	71.2000	VERY SATISFACTORY	76.8750	VERY SATISFACTOR
	7	DE LA CRUZ. ARVIN	No	Evaluation	No	o Evaluation	84.7498	VERY SATISFACTORY	100.0000	OUTSTANDING	59.3249	SATISFACTOR
	8	DELOS REYES, NORMAN	79.2000	VERY	91.6000	OUTSTANDING	61.9294	SATISFACTORY	81.2000	VERY SATISFACTORY	68.3506	SATISFACTOR
	9	DAVID FARISCAL FERNANDO, RONALD D	100.0000	SATISFACTORY OUTSTANDING	100.0000	OUTSTANDING	92.1688	OUTSTANDING	99.2000	OUTSTANDING VERY	94.5182	OUTSTANDING
	10	KHAN, MA. LEONA	78.4000	VERY SATISFACTORY	78.4000	VERY SATISFACTORY	54.3372	SATISFACTORY	80.8000	SATISFACTORY	61.5560	SATISFACTOR
	11	LEGARDA, MARY ANN VILLA	75.2000	VERY SATISFACTORY	80.0000	VERY SATISFACTORY	66.1772	SATISFACTORY	99.2000	OUTSTANDING	69.3640	SATISFACTOR
	12	LIGAYO, MICHAEL ANGELO D.	78.4000	VERY SATISFACTORY	80.0000	VERY SATISFACTORY	86.8736	VERY SATISFACTORY	No	Evaluation	84.4915	SATISFACTOR
	13	LORICO, JULIAN L.	80.0000	VERY SATISFACTORY	100.0000	OUTSTANDING	83.3342	VERY SATISFACTORY	100.0000	OUTSTANDING	84.3339	SATISFACTOR
	14	MADRIGALEJOS, DANILO JR.	80.0000	VERY SATISFACTORY	87.6000	VERY SATISFACTORY	85.6142	VERY SATISFACTORY	97.6000	OUTSTANDING	84.6899	VERY SATISFACTOR
	15	MAHAGUAY, ROLITO LACEDA	100.0000	OUTSTANDING	100.0000	OUTSTANDING	89.7482	VERY SATISFACTORY	100.0000	OUTSTANDING	92.8237	OUTSTANDING
	16	MANALO, RICO M.	78.4000	VERY SATISFACTORY	84.0000	VERY SATISFACTORY	68.924	SATISFACTORY	100.0000	OUTSTANDING	72.3268	VERY SATISFACTOR
	17	NATIVIDAD, FERDINAND O	80.0000	VERY SATISFACTORY	100.0000	OUTSTANDING	73.7794	VERY SATISFACTORY	100.0000	OUTSTANDING	77.6456	VERY SATISFACTOR
	18	NATIVIDAD, MARK KERVIN	80.0000	VERY SATISFACTORY	100.0000	OUTSTANDING	85.681	VERY SATISFACTORY	100.0000	OUTSTANDING	85.9767	VERY SATISFACTOR
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#### Faculty Online Evaluation SUMMARY OF RESULTS First Semester S.Y. 1718

		Supervi	isor Evaluator 1	Superv	isor Evaluator 2	Stud	ent Evaluation	Self	f Evaluation	Over-	all Evaluation
	Name of Faculty	Rating	Interpretation	Rating	Interpretation	Rating	Interpretation	Rating	Interpretation	Rating	Interpretation
19	OQUINDO, FLORINDA H	100.0000	OUTSTANDING	100.0000	OUTSTANDING	81.6212	VERY SATISFACTORY	99.2000	OUTSTANDING	87.1348	VERY SATISFACTORY
20	PAJABERA, ORLANDO	80.0000	VERY SATISFACTORY	100.0000	OUTSTANDING	88.9086	VERY SATISFACTORY	98.4000	OUTSTANDING	88.2360	VERY SATISFACTORY
21	PANGILINAN, KERUBIN	78.4000	VERY SATISFACTORY	83.6000	VERY SATISFACTORY	71.5824	VERY SATISFACTORY	92.8000	OUTSTANDING	74.1477	VERY SATISFACTORY
22	REYES, LUTZER UGTO	80.0000	VERY SATISFACTORY	100.0000	OUTSTANDING	89.3976	VERY SATISFACTORY	100.0000	OUTSTANDING	88.5783	VERY SATISFACTORY
23	RODRIGUEZ, JOSHUA BENJAMIN	100.0000	OUTSTANDING	100.0000	OUTSTANDING	89.2252	VERY SATISFACTORY	100.0000	OUTSTANDING	92.4576	OUTSTANDING
24	SAWI, CHRISTOPHER M.	80.0000	VERY SATISFACTORY	95.6000	OUTSTANDING	94.673	OUTSTANDING	100.0000	OUTSTANDING	91.8311	OUTSTANDING
25	SERVIANO, AZDIE	78.4000	VERY SATISFACTORY	84.0000	VERY SATISFACTORY	68.096	SATISFACTORY	83.6000	VERY SATISFACTORY	71.7472	VERY SATISFACTORY
26	TENERIFE JR, PEDRITO	100.0000	OUTSTANDING	100.0000	OUTSTANDING	88.3148	VERY SATISFACTORY	100.0000	OUTSTANDING	91.8204	OUTSTANDING
27	VELASCO, ANTONIO Y.	100.0000	OUTSTANDING	100.0000	OUTSTANDING	71.0254	VERY SATISFACTORY	80.0000	VERY SATISFACTORY	79.7178	VERY SATISFACTORY
28	VERZO, ALLAN	70.4000	SATISFACTORY	80.0000	VERY SATISFACTORY	50.436	FAIR	100.0000	OUTSTANDING	57.3852	SATISFACTORY

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2 of 2





#### Faculty Online Evaluation SUMMARY OF RESULTS Second Semester S.Y. 1617 Over-all Rating Interpretation VERY SATISFACTORY 78.9293 COLLEGE OF ENGINEERING Self Evaluation Over-all Evaluation Supervisor Evaluator 1 Supervisor Evaluator 2 Student Evaluation Rating Interpretation Rating Interpretation Interpretation Rating Interpretation Interpretation Rating Name of Faculty Rating OUTSTANDING 100.0000 OUTSTANDING 94,4746 OUTSTANDING OUTSTANDING 92.1066 100.0000 OUTSTANDING 100.0000 ADO, REMEDIOS G. VERY VERY VERY 81.8894 80.8000 76.9848 OUTSTANDING 80.0000 SATISFACTORY ARTIFICIO EDCEL 100.0000 SATISFACTORY SATISFACTORY SATISFACTORY VERY VERY VERY VERY OUTSTANDING 77.9699 75.3856 100.0000 80.0000 SATISFACTORY 86 0000 CABRERA, KEVIN MICHAEL A SATISFACTORY SATISFACTORY SATISFACTORY VERY VERY VERY OUTSTANDING 82.0711 100.0000 78.2158 OUTSTANDING 90.0000 SATISFACTORY 91.6000 CANLAS, ARLENE B. SATISFACTORY SATISFACTORY VERY VERY 100.0000 OUTSTANDING 73.1942 76.4488 No Evaluation SATISFACTORY CANSING JULIUS S 98.4000 OUTSTANDING SATISFACTORY VERY VFRY VERY VERY 73.2000 82.0188 SATISFACTORY 72.4000 SATISFACTORY CATRIZ JR., ELORDE S 80,0000 SATISFACTORY SATISFACTORY SATISFACTORY VERY VERY VERY 76.6084 SATISFACTORY 73.5548 86.4000 SATISFACTORY SATISFACTORY CECOGO, JOHN VINCENT SATISFACTORY SATISFACTORY VERY SATISFACTORY No Evaluation 68.0134 No Evaluation 74.3048 80.0000 CHIN, FRANK ANTHONY SATISFACTORY SATISFACTORY VERY VERY SATISFACTORY VERY 58.1250 DELOS REYES, NORMAN FAIR 82.4000 74.4000 49.55 SATISFACTORY 80,0000 SATISFACTORY SATISFACTORY DAVID FARISCAL VERY VERY OUTSTANDING 88.2870 100.0000 OUTSTANDING 86.4672 SATISFACTORY FERNANDO, RONALD D 88.8000 100.0000 SATISFACTORY SATISFACTORY SATISFACTORY SATISFACTORY 57.4742 SATISFACTORY 56.4000 SATISFACTORY 58.3919 SATISFACTORY 58.4000 61.6000 KHAN, MA, LEONA VERY SATISFACTORY VERY 62.4854 No Evaluation 55.7792 SATISFACTORY 74.4000 80.0000 LEGARDA, MARY ANN VILLA SATISFACTORY SATISFACTORY VERY VERY VERY VERY VERY 85.2051 84.0000 88.293 74.0000 SATISFACTORY SATISFACTORY SATISFACTORY LIGAYO, MICHAEL ANGELO D. 80.0000 SATISFACTORY 13 SATISFACTORY VERY VERY 100.0000 OUTSTANDING SATISFACTORY OUTSTANDING 80.8000 LORICO, JULIAN L. 96.4000 SATISFACTORY SATISFACTORY VERY VERY VERY 96.0000 OUTSTANDING 86.7106 MADRIGALEJOS, DANILO JR. 89.7008 SATISFACTORY 79.2000 80 0000 SATISFACTORY 15 SATISFACTORY SATISFACTORY VERY OUTSTANDING 93 1467 OUTSTANDING 90.781 100.0000 OUTSTANDING 100.0000 OUTSTANDING 96.0000 MAHAGUAY, ROLITO LACEDA SATISFACTORY VERY VERY OUTSTANDING 95.2000 SATISFACTORY 72.8000 80.0000 MAIGUE, CHENNE SATISFACTORY SATISFACTORY SATISFACTORY SATISFACTORY VERY 64.6054 68 8238 SATISFACTORY No Evaluation 76.0000 80,0000 MANALO, RICO M. SATISFACTORY SATISFACTORY 1 of 2





#### Faculty Online Evaluation SUMMARY OF RESULTS Second Semester S.Y. 1617

		Superv	isor Evaluator 1	Superv	isor Evaluator 2	Stud	ent Evaluation	Self	Evaluation	Over	-all Evaluation
	Name of Faculty	Rating	Interpretation	Rating	Interpretation	Rating	Interpretation	Rating	Interpretation	Rating	Interpretation
19	NATIVIDAD, FERDINAND O	100.0000	OUTSTANDING	84.0000	VERY SATISFACTORY	76.1296	VERY SATISFACTORY	100.0000	OUTSTANDING	81.6907	VERY SATISFACTORY
20	NATIVIDAD, MARK KERVIN	91.2000	OUTSTANDING	76.4000	VERY SATISFACTORY	75.3286	VERY SATISFACTORY	100.0000	OUTSTANDING	78.6100	VERY SATISFACTORY
21	OQUINDO, FLORINDA H	100.0000	OUTSTANDING	97.6000	OUTSTANDING	80.204	VERY SATISFACTORY	93.6000	OUTSTANDING	85.9028	VERY SATISFACTORY
22	PAJABERA, ORLANDO	100.0000	OUTSTANDING	83.2000	VERY SATISFACTORY	85.5762	VERY SATISFACTORY	97.6000	OUTSTANDING	88.2233	VERY SATISFACTORY
23	PANGILINAN, KERUBIN	78.4000	VERY SATISFACTORY	69.2000	SATISFACTORY	77.0722	VERY SATISFACTORY	86.0000	VERY SATISFACTORY	76.5505	VERY SATISFACTORY
24	PILUETA, NIÑO U.	93.2000	OUTSTANDING	80.0000	VERY SATISFACTORY	72.3994	VERY SATISFACTORY	100.0000	OUTSTANDING	77.3196	VERY SATISFACTORY
25	REYES, LUTZER UGTO	94.0000	OUTSTANDING	94.0000	OUTSTANDING	93.2062	OUTSTANDING	100.0000	OUTSTANDING	93.4443	OUTSTANDING
26	RODRIGUEZ, JOSHUA BENJAMIN	100.0000	OUTSTANDING	84.8000	VERY SATISFACTORY	86.6306	VERY SATISFACTORY	100.0000	OUTSTANDING	89.1214	VERY SATISFACTORY
27	SAWI, CHRISTOPHER M.	91.6000	OUTSTANDING	80.0000	VERY SATISFACTORY	91.4552	OUTSTANDING	100.0000	OUTSTANDING	90.3386	VERY SATISFACTORY
28	SERVIANO, AZDIE	78.4000	VERY SATISFACTORY	70.8000	SATISFACTORY	68.941	SATISFACTORY	69.2000	SATISFACTORY	71.0187	VERY SATISFACTORY
29	TENERIFE JR, PEDRITO	100.0000	OUTSTANDING	96.4000	OUTSTANDING	85.3782	VERY SATISFACTORY	100.0000	OUTSTANDING	89.4047	VERY SATISFACTORY
30	TRIA, ROMAN ANGELO	80.0000	VERY SATISFACTORY	82.4000	VERY SATISFACTORY	92.4912	OUTSTANDING	71.2000	VERY SATISFACTORY	88.9838	VERY SATISFACTORY
31	VALENTINO, JIMMAR	No	Evaluation	No	Evaluation	74.7632	VERY SATISFACTORY	84.4000	VERY SATISFACTORY	52.3342	SATISFACTORY
32	VELASCO, ANTONIO Y.	100.0000	OUTSTANDING	91.2000	OUTSTANDING	76.2128	VERY SATISFACTORY	100.0000	OUTSTANDING	82.4690	VERY SATISFACTORY
33	VERZO, ALLAN	60.0000	SATISFACTORY	56.8000	SATISFACTORY	55.034	SATISFACTORY	100.0000	OUTSTANDING	56.2038	SATISFACTORY

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2 of 2





Faculty Online Evaluation SUMMARY OF RESULTS
First Semester S.Y. 1617

				Over-all	Rating	In	terpretation	
CC	LLEGE OF ENGINEERING	G		81.38	97	VERY :	SATISFACT	ORY
S	upervisor Evaluator 1	Superv	isor Evaluator 2	Stude	ent Evalua	tion	Sel	If Eval
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		Superv	risor Evaluator 1	Superv	isor Evaluator 2	Stud	ent Evaluation	Sel	f Evaluation	Over	-all Evaluation
	Name of Faculty	Rating	Interpretation	Rating	Interpretation	Rating	Interpretation	Rating	Interpretation	Rating	Interpretation
1	ADO, REMEDIOS G.	100.0000	OUTSTANDING	100.0000	OUTSTANDING	91.3586	OUTSTANDING	99.2000	OUTSTANDING	93.9510	OUTSTANDING
2	ARTIFICIO, EDCEL	83.6000	VERY SATISFACTORY	84.4000	VERY SATISFACTORY	65.7012	SATISFACTORY	94.0000	OUTSTANDING	71.1508	VERY SATISFACTORY
3	CABRERA, KEVIN MICHAEL A.	84.8000	VERY SATISFACTORY	83.6000	VERY SATISFACTORY	75.3318	VERY SATISFACTORY	100.0000	OUTSTANDING	78.0523	VERY SATISFACTORY
4	CANLAS, ARLENE B.	100.0000	OUTSTANDING	100.0000	OUTSTANDING	86.1474	VERY SATISFACTORY	100.0000	OUTSTANDING	90.3032	VERY SATISFACTORY
5	CANSINO, JULIUS S	100.0000	OUTSTANDING	100.0000	OUTSTANDING	81.5926	VERY SATISFACTORY	100.0000	OUTSTANDING	87.1148	VERY SATISFACTORY
6	CATRIZ JR., ELORDE S	89.6000	VERY SATISFACTORY	82.8000	VERY SATISFACTORY	82.9372	VERY SATISFACTORY	73.6000	VERY SATISFACTORY	84.2560	VERY SATISFACTORY
7	CECOGO, JOHN VINCENT	92.8000	OUTSTANDING	84.8000	VERY SATISFACTORY	88.429	VERY SATISFACTORY	72.0000	VERY SATISFACTORY	88.9403	VERY SATISFACTORY
8	DELOS REYES, NORMAN DAVID FARISCAL	82.0000	VERY SATISFACTORY	82.8000	VERY SATISFACTORY	65.015	SATISFACTORY	83.6000	VERY SATISFACTORY	70.1905	SATISFACTORY
9	FERNANDO, RONALD D	100.0000	OUTSTANDING	100.0000	OUTSTANDING	83.631	VERY SATISFACTORY	100.0000	OUTSTANDING	88.5417	VERY SATISFACTORY
10	KHAN, MA. LEONA	80.0000	VERY SATISFACTORY	80.0000	VERY SATISFACTORY	78.639	VERY SATISFACTORY	96.0000	OUTSTANDING	79.0473	VERY SATISFACTORY
11	LEGARDA, MARY ANN VILLA	78.4000	VERY SATISFACTORY	78.4000	VERY SATISFACTORY	70.6914	SATISFACTORY	100.0000	OUTSTANDING	73.0040	VERY SATISFACTORY
12	LIGAYO, MICHAEL ANGELO D.	83.6000	VERY SATISFACTORY	83.6000	VERY SATISFACTORY	80.0904	VERY SATISFACTORY	85.6000	VERY SATISFACTORY	81.1433	VERY SATISFACTORY
13	LORICO, JULIAN L.	100.0000	OUTSTANDING	100.0000	OUTSTANDING	75.9248	VERY SATISFACTORY	100.0000	OUTSTANDING	83.1474	VERY SATISFACTORY
14	MADRIGALEJOS, DANILO JR. C.	79.2000	VERY SATISFACTORY	82.0000	VERY SATISFACTORY	81.08	VERY SATISFACTORY	97.6000	OUTSTANDING	80.7960	VERY SATISFACTORY
15	MAHAGUAY, ROLITO LACEDA	100.0000	OUTSTANDING	100.0000	OUTSTANDING	86.105	VERY SATISFACTORY	100.0000	OUTSTANDING	90.2735	VERY SATISFACTORY
16	MAIGUE, CHENNE	80.8000	VERY SATISFACTORY	82.8000	VERY SATISFACTORY	61.6874	SATISFACTORY	80.0000	VERY SATISFACTORY	67.6212	SATISFACTORY
17	MANALO, RICO M.	82.0000	VERY SATISFACTORY	82.0000	VERY SATISFACTORY	58.0988	SATISFACTORY	88.8000	VERY SATISFACTORY	65.2692	SATISFACTORY

1 of 2





					Faculty Online Eval	uation				J	
				SI	UMMARY OF RES	SULTS					
	Name of Faculty	Superv Rating	isor Evaluator 1 Interpretation	Superv Rating	isor Evaluator 2 Interpretation	Stude Rating	ent Evaluation Interpretation	Sel <sup>®</sup> Rating	Evaluation Interpretation	Over Rating	-all Evaluation Interpretation VERY
18	NATIVIDAD, FERDINAND O	100.0000	OUTSTANDING	100.0000	OUTSTANDING	74.6226	VERY SATISFACTORY	100.0000	OUTSTANDING	82.2358	SATISFACTOR
19	NATIVIDAD, MARK KERVIN	83.6000	VERY SATISFACTORY	85.2000	VERY SATISFACTORY	71.6738	VERY SATISFACTORY	100.0000	OUTSTANDING	75.4117	VERY SATISFACTOR VERY
20	OQUINDO, FLORINDA H	100.0000	OUTSTANDING	100.0000	OUTSTANDING	77.73	VERY SATISFACTORY	100.0000	OUTSTANDING	84.4110	SATISFACTOR
21	PAJABERA, ORLANDO	85.2000	VERY SATISFACTORY	85.2000	VERY SATISFACTORY	85.0218	VERY SATISFACTORY	92.4000	OUTSTANDING	85.0753	VERY SATISFACTOR VERY
22	PANGILINAN, KERUBIN	81.2000	VERY SATISFACTORY	83.6000	VERY SATISFACTORY	75.0162	VERY SATISFACTORY	92.8000	OUTSTANDING	77.1113	SATISFACTOR
23	REYES, LUTZER UGTO	100.0000	OUTSTANDING	100.0000	OUTSTANDING	85.3796	VERY SATISFACTORY	100.0000	OUTSTANDING	89.7657	SATISFACTOR
24	RODRIGUEZ, JOSHUA BENJAMIN	100.0000	OUTSTANDING	83.6000	VERY SATISFACTORY	86.2418	VERY SATISFACTORY	100.0000	OUTSTANDING	88.7293	VERY SATISFACTOR
25	SAWI, CHRISTOPHER M.	100.0000	OUTSTANDING	100.0000	OUTSTANDING	90.465	VERY SATISFACTORY	98.8000	OUTSTANDING	93.3255	OUTSTANDING
26	SERVIANO, AZDIE	80.0000	VERY SATISFACTORY	80.0000	VERY SATISFACTORY	81.4362	VERY SATISFACTORY	96.8000	OUTSTANDING	81.0053	VERY SATISFACTOR VERY
27	TENERIFE JR, PEDRITO	100.0000	OUTSTANDING	No	Evaluation	83.2092	VERY SATISFACTORY	99.2000	OUTSTANDING	88.2464	SATISFACTOR
28	VELASCO, ANTONIO Y.	100.0000	OUTSTANDING	100.0000	OUTSTANDING	68.45	SATISFACTORY	100.0000	OUTSTANDING	77.9150	SATISFACTOR
29	VERZO, ALLAN	78.8000	VERY SATISFACTORY	79.2000	VERY SATISFACTORY	57.9826	SATISFACTORY	100.0000	OUTSTANDING	64.2678	SATISFACTOR
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# P.F. I1.5 I.1. demonstrate skills and competencies in all of the following: I.1.5. the use of higher-order thinking skills such as analytical, critical, creative, innovative and problem solving; Documents attached: SAMPLE SYLLABUS FACULTY EVALUATION





Sample Syllabus







Republic of the Philippines
POLYTECHNIC UNIVERSITY OF THE PHILIPPINES
College of Engineering
Department of Computer Engineering

#### Vision

Clearing the paths while laying new foundations to transform the Polytechnic University of the Philippines into an epistemic community.

#### Mission

Reflective of the great emphasis being given by the country's leadership aimed at providing appropriate attention to the alleviation of the plight of the poor, the development of citizens, and of the national economy to become globally competitive, the University shall commit its academic resources and manpower to achieve its goals through:

- o Provision of undergraduate and graduate education which meet international standards of quality and excellence;
- o Generation and transmission of knowledge in the broad range of disciplines relevant and responsive to the dynamically changing domestic and international environr
- o Provision of more equitable access to higher education opportunities to deserving and qualified Filipinos; and
- o Optimization, through efficiency and effectiveness, of social, institutional, and individual returns and benefits derived from the utilization of higher education resources

#### Goals

- 1. Provide quality education through instruction, advance research and extension services.
- 2. Produce world-class professionals as potential industry leaders and job providers.
- 3. Develop and produce facilities through the use of adapted technology and indigenous materials.
- 4. Maintain, upgrade or improve facilities through the applications of engineering technology.

#### Objectives

- 1. Strengthen the Bachelor of Science in Computer Engineering program consistent with global trends;
- 2. Develop the critical thinking and communication skills of students, giving emphasis to research and extension services;
- 3. Enhance the competencies of students to evaluate, assess, design and operate safe, effective, economically-efficient and environmental friendly computer-based system;
- 4. create a conducive teaching and learning atmosphere with emphasis to Bachelor of Science in Computer Engineering faculty and students' growth and academic freedom;





5. establish network with educational institutions, Industries, GO's and NGO's, local and international, which could serve as:

a. Funding sources and/or partners of researches;

b. Sources of new technology;

c. Centers for faculty and students' exchange programs and on-the-job trainings; and

d. Grantees of scholarship/additional facilities.

6. conduct continuously action researches on the needs of laboratory and other facilities that could be locally produced or innovated using local materials and adapted technologic

 equip graduates with appropriate knowledge and technical skills imbued with desirable work attitudes and moral values, through enhanced teaching/learning process by multimedia facilities on top of traditional methods;

8. develop faculty as competent mentors and quality researchers through advanced studies and other facets of continuing professional education

Course Title : OBJECT-ORIENTED PROGRAMMING

Course Code : COEN 3444

Course Credit : 4 units

Pre-Requisite : COEN 3340 (DATA STRUCTURES and ALGORITHM ANALYSIS)

Course Description : This course introduces new techniques and concepts of programming. Java will be use as the programming language and as tool to implement object-on programming. Consequently, students will acquaint themselves with new syntax that is used to program Java programs. Object oriented programming as one of the classifications of program mainly introduces the use of objects, methods, variables, abstraction, interface, polymorphism and other object oriented related topics. This course takes as fact that the students have all learned the basic concepts of programming.

	Institutional Learning Outcomes	Program Outcomes		Course Objectives
	Creative and Critical Thinking	Use of contemporary problem solving in the analysis, design, and evaluation of computer and software systems, including system integration and implementation.		er completing the course, the student ust be able to:
2.	Effective Communication	Communicate effectively with the computing community and with society at large (in local and international scenes) about engineering activities by being able to comprehend and write effective reports, design documentation, make effective presentations, and give and understand clear instructions.	1	Learn the basic syntax and language rul of Java  Understand the different control structure
3.	Strong Service Orientation	Share expertise in literacy, productivity, and livelihood technology to the		and their functions in programs
4.	Community Engagement	adopted community	1	Learn the behavior and concepts of obje
5.	Adeptness in the Responsible Use of Technology	Use the techniques, skills and modern computer engineering tools necessary for engineering practice.		and classes
6.	Passion to Life-Long Learning	Engage in life-long learning and an understanding of the need to keep current of the developments in the specific field of practice.	1	Understand the use and the significance encapsulation, polymorphism, inheritance
7.	High Level of Leadership and Organizational Skills	Knowledge and understanding computer engineering and management principles as a member and a leader in a team, to manage projects and in		and abstraction



			multidisciplinary environment.			✓ . Familiarize exception ha	themselves with error and andling code
	of Personal and Professional Ethic of Nationalism and Global Respon		Recognition of professional, so The broad education necess engineering solutions in global	sary to understand the impa	ct of computer	collections a library  Learn how to write to output to Create custor API  Understand multi-thread.	erent data structures and available in the Java standar or read from input streams and streams or GUI using the Java Swithe concept behind single ed applications knowledge of object orieg in writing Java programs
URSE PL	AN Topic		earning Outcomes	Methodology	Resc	ources	Assessment
	Class orientation Discussion of course goals,	Familiariz Education	e student on Outcome-Based	Orientation  Review of the syllabus,	Course	Syllabus	None
Week 1	expected outcomes, course policies and grading system Assigning of Groups and Officers		e student on the course grading system and classroom	learning activities and assessment  Getting to know activity			





	Object-Oriented     Programming Concepts			Java Programming	
Week 3	Java Fundamentals - Anatomy of a Basic Java Program  Comments Primitive Data Types Expressions and Operators Reference Types	Familiarize the Java Language Fundamentals Compile a basic program using Java Syntax	Lecture/Discussion Program Demonstration Recitation/Board work	http://www.javafaq.nu/java- article386.html Malik, D. S. Java Programming	Quiz Hands-on Activ Assignment Recitation
Week 4	Flow Controls     Conditional Statements     Looping Statements	Understand how the various flow control statements could be useful in Java programs.  Understand the concepts of conditional statements in Java.  Create Java programs to solve problems using various Flow Control statements and conditional statements	Lecture/Discussion Program Demonstration Recitation/Board work	Wu, Thomas C. An Introduction to Object- Oriented Programming,	Quiz Machine Proble Program Tracin Practical Exam
Week 5	Arrays     array declaration     memory allocation     array initialization     accessing and storing values in arrays     multidimensional array	Understand the concepts of array.  Learn how to use array in Java.  Create Java programs to solve problems using array.	Lecture/Discussion Program Demonstration Recitation/Board work	Skrien, D. Object-Oriented Design Using Java	Quiz Machine Proble Practical Exam Recitation





Week 6	Objects and Classes in Java  Classes  Access Modifiers  Methods and Attributes  Constructors  Class Methods and Class Variables	Understand the difference between procedural and object oriented programming.  Learn the benefits of OOP.  Learn how to define a class.  Understand the concepts and significance of UML.  Create Java programs to solve problems using array and array functions.  Create a UML design of a given program.	Lecture/Discussion Program Demonstration Recitation/Board work	http://www.javafaq.nu/java- article669.html	Quiz Machine Problem Program Tracing Hands-on Activity
Week 7	Declaring Classes  Methods String Manipulations Encapsulation Types of Java Methods	Understand the concepts of declaring classes.  Understand the java methods.  Learn the concepts of string manipulation in Java.  Create Java programs to solve problems that require different types of Java method.	Lecture/Discussion Program Demonstration Recitation/Board work	_http://www.javafaq.nu/java- article664.html	Long Quiz Machine Problem Hands-on Activity Practical Exam
Week 8	Polymorphism and Inheritance  Importance of Inheritance  Importance of Polymorphism  Methods overriding and	Understand the concepts of polymorphism.  Learn different way of using inheritance in Java.  Create Java programs to solve problems that require polymorphism	Lecture/Discussion Program Demonstration Recitation/Board work	http://www.javafaq.nu/java- article422.html	Machine Problem Practical Exam Hands-on Activity





	Overloading	and inheritance.			
Week 9		MIC	TERM EXAMINATION		
Week 10	Importance of Exceptions in Java     Customizing a Java Exception     Importance of Assertions in Java programs     Writing Java programs that implements exceptions handling and assertions	Understand the significance and the concepts of exception in Java.  Learn how to create a customized exception.  Understand the concepts of using Assertion in Java.  Differentiate the Exception and Assertion.  Create Java program to solve problems that require handling exceptions and assertion.	Lecture/Discussion Program Demonstration Recitation/Board work	Wu, Thomas C. An Introduction to Object- Oriented Programming.  http://www.javafaq.nu/java- article562.html	Short Quiz Machine Prob Practical Exa Assignmen
Week 11	Collections Framework  Collection  Set  List  Map	Enumerate the different Collection Frameworks  Understand the concepts of collection Frameworks	Lecture/Discussion Program Demonstration Recitation/Board work	Wu, Thomas C.  An Introduction to Object- Oriented Programming,  http://www.javafaq.nu/java- article673.html	Peer Programn Recitation Practical Exa Quiz
Week 12	Input and Output Streams  InputStream/ OutputStream Classes  Reader/Writer Classes  File Handler Classes	Comprehend the applications of I/O streams with Java  Apply the Input and Output Streams with Java	Lecture/Discussion Program Demonstration Recitation/Board work	http://www.javafaq.nu/java- article680.html	Group Work Oral Participati Hands-On Activ Assignment

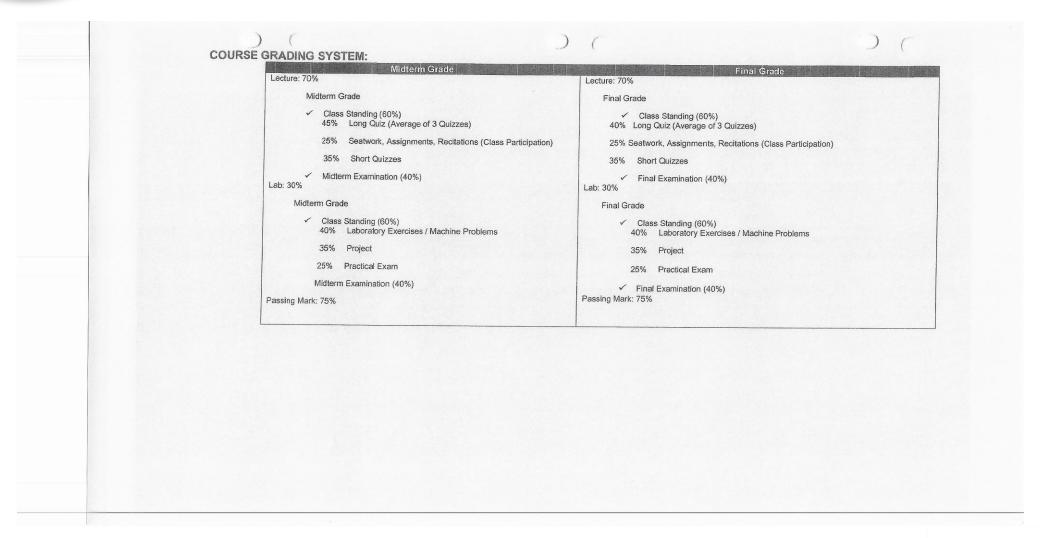




	GUI Development	Evaluate the AWT Graphical			
Week 13	AWT Graphical Components	Components and Event handling	Lecture/Discussion	http://www.javafaq.nu/java- article672.html	Long Quiz
	Event Handling	Create a Graphical User Interface	Program Demonstration	articleo7 2.Hum	Machine Problem
	Anonymous Classes	(GUI)	Recitation/Board work	Wu, Thomas C. An Introduction to Object- Oriented Programming	Practical Exam
Week 14	Thread				
	Thread Lifecycle	Understand the concepts of threading in Java.	Lecture/Discussion	http://www.javafaq.nu/java- article673.html	Short Quiz
	Thread Synchronization	ouvu.	Program Demonstration	articleo/ 5.Huffl	Machine Problem
		Create Java program to solve problems that require multi-threading in Java.	Recitation/Board work	Malik, D. S.	Drogram Tassis u
	Critical Sections	that require mont-meaning in Java.		Java Programming	Program Tracing
Week 15	Other Java Classes				
	Abstract Class	Evaluate Classes used in Java	Lecture/Discussion	http://www.javafaq.nu/java-	Oral Participation
			Program Demonstration	article422.html	Hands-On Activity
	Interfaces	Create an Abstract Class and Interfaces	Recitation/Board work	Malik, D. S. Java Programming	Practical Exam
Week 16					
week to		Culminating activity given to the	Project Presentation	Application Project Documentation	Project Deliberation
	APPLICATION PROJECT PRESENTATION	grouped students to test their mastery of the course by developing application	System Walk-through		r roject Bellberation
	The object of th	programs utilizing all the theories and	Simulation	Developed System	
Week 17		concepts acquired	Project Presentation	Application Project	
	ADDI ICATION DDO 1507	Culminating activity given to the		Documentation	Project Deliberation
	APPLICATION PROJECT PRESENTATION	students to test their mastery of the course by developing application	System Walk-through	Developed System	
		programs utilizing all the theories and concepts acquired	Simulation	_ 270.5pca	
Week 18		I FIN	NAL EXAMINATION		











Rev. No.	Description of Change	REVISION HISTORY	
		Approved by	Effective Date
1	Format to OBE	Engr. Julius S. Cansino	SY 2017-2018
		Noted by:  ENGR. JULIUS & CANSING Charmerson  Approved by:  NGR. GUILLERMO O. BERNABE Dean  DR. MANUEL M. MUHI (ice President for Academic Affairs	





**Faculty Evaluation** 

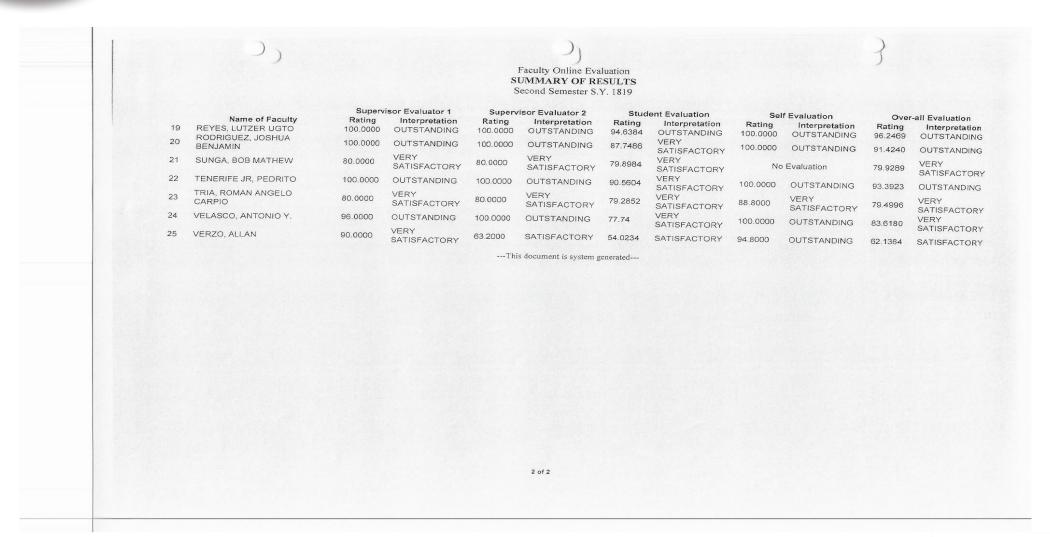




### Faculty Online Evaluation SUMMARY OF RESULTS Second Semester S.Y. 1819 Over-all Rating Interpretation COLLEGE OF ENGINEERING 84 8581 VERY SATISFACTORY Supervisor Evaluator 1 Supervisor Evaluator 2 Student Evaluation Self Evaluation Over-all Evaluation Name of Faculty Rating Interpretation Rating Interpretation Rating Interpretation Rating Interpretation Rating Interpretation ADO, REMEDIOS G. 96 8000 OUTSTANDING 100.0000 OUTSTANDING 92.4188 OUTSTANDING 99.2000 OUTSTANDING 94.0532 OUTSTANDING VERY ARTIFICIO, EDCEL 81.6000 80.0000 81.8126 VERY 87.2000 SATISFACTORY 81.5888 SATISFACTORY SATISFACTORY SATISFACTORY SATISFACTORY VERY VERY CABRERA, KEVIN MICHAEL A. 81,6000 80.0000 VERY No Evaluation SATISFACTORY SATISFACTORY 81.2551 SATISFACTORY SATISFACTORY VERY VERY CANLAS, ARLENE B. 92.0000 OUTSTANDING 88.8000 VERY 88.1256 100.0000 OUTSTANDING SATISFACTORY 88.9679 SATISFACTORY SATISFACTORY VERY CANSINO, JULIUS S 100.0000 OUTSTANDING No Evaluation 78.1638 VERY 100.0000 OUTSTANDING 74.7147 SATISFACTORY SATISFACTORY VERY CHIN FRANK ANTHONY 80.0000 71.2000 81.9528 99.2000 OUTSTANDING SATISFACTORY SATISFACTORY 80.4870 SATISFACTORY SATISFACTORY VERY DE LA CRUZ, ARVIN 94.0000 OUTSTANDING 99,2000 OUTSTANDING 86.7844 VFRY 100,0000 OUTSTANDING 89.4691 SATISFACTORY SATISFACTORY VERY DELA CRUZ, JOHN 93.2000 OUTSTANDING 95 6000 OUTSTANDING VERY 82.8416 100.0000 OUTSTANDING 86.1891 SATISFACTORY SATISFACTORY FERNANDO, RONALD D 100 0000 VERY OUTSTANDING 100,0000 OUTSTANDING VERY 100.0000 OUTSTANDING 87.2688 SATISFACTORY SATISFACTORY VERY VERY KHAN, MA, LEONA 77.6000 77.6000 75.1258 SATISFACTORY No Evaluation 75.8681 SATISFACTORY SATISFACTORY SATISFACTORY VERY VERY LEGARDA, MARY ANN VILLA 86.8000 75.6000 64.4602 SATISFACTORY 99.2000 OUTSTANDING SATISFACTORY SATISFACTORY 70.0421 SATISFACTORY 12 LORICO, JULIAN I. 92 0000 OUTSTANDING 92.8000 OUTSTANDING 77.9552 OUTSTANDING 100.0000 82.2486 SATISFACTORY SATISFACTORY MADRIGALEJOS, DANILO JR 82.0000 80.0000 91.3764 OUTSTANDING SATISFACTORY SATISFACTORY No Evaluation 88.3635 SATISFACTORY 14 MAHAGUAY, ROLITO LACEDA 100 0000 OUTSTANDING 100.0000 OUTSTANDING 92.5694 OUTSTANDING 100.0000 OUTSTANDING 94.7986 OUTSTANDING NATIVIDAD, FERDINAND O VERY 100.0000 OUTSTANDING 100.0000 OUTSTANDING 79.9004 100.0000 OUTSTANDING 85.9303 SATISFACTORY SATISFACTORY VERY NATIVIDAD, MARK KERVIN 100.0000 OUTSTANDING 94 0000 OUTSTANDING 89.4376 100.0000 OUTSTANDING 92.0063 OUTSTANDING SATISFACTORY VERY OQUINDO, FLORINDA H 100.0000 OUTSTANDING 100.0000 OUTSTANDING 83 8172 98.8000 OUTSTANDING 88.6720 SATISFACTORY SATISFACTORY PAJABERA, ORLANDO 100 0000 VERY OUTSTANDING 100.0000 OUTSTANDING 90.4034 98.4000 OUTSTANDING 93.2824 OUTSTANDING SATISFACTORY 1 of 2











Faculty Online Evaluation SUMMARY OF RESULTS First Semester S.Y. 1819

		COLLEC	SE OF ENGINEERIN	IG				nterpretation SATISFACT			
			risor Evaluator 1		isor Evaluator 2						
	Name of Faculty	Rating	Interpretation	Rating	Interpretation	Rating	lent Evaluation Interpretation	Rating	If Evaluation Interpretation	Ove Rating	r-all Evaluation Interpretation
1	ADO, REMEDIOS G.	94.0000	OUTSTANDING	100.0000	OUTSTANDING	84.881	VERY SATISFACTORY	92.0000	OUTSTANDING	88.2167	VERY SATISFACTORY
2	ARTIFICIO, EDCEL	92.0000	OUTSTANDING	75.2000	VERY SATISFACTORY	76.434	VERY SATISFACTORY	77.6000	VERY SATISFACTORY	79.4238	VERY SATISFACTORY
3	CANLAS, ARLENE B.	92.0000	OUTSTANDING	88.4000	VERY SATISFACTORY	72.491	VERY SATISFACTORY	100.0000	OUTSTANDING	77.9837	VERY SATISFACTORY
4	CANSINO, JULIUS S	100.0000	OUTSTANDING	No	Evaluation	81.5388	VERY SATISFACTORY	100.0000	OUTSTANDING	87.0772	VERY SATISFACTORY
5	CHIN, FRANK ANTHONY	91.2000	OUTSTANDING	80.0000	VERY SATISFACTORY	67.6238	SATISFACTORY	100.0000	OUTSTANDING	73.5767	VERY SATISFACTORY
6	DE LA CRUZ, ARVIN	100.0000	OUTSTANDING	100.0000	OUTSTANDING	86.4334	VERY SATISFACTORY	100.0000	OUTSTANDING	90.5034	VERY SATISFACTORY
7	DELA CRUZ, JOHN	94.8000	OUTSTANDING	100.0000	OUTSTANDING	83.2676	VERY SATISFACTORY	100.0000	OUTSTANDING	87.2473	VERY SATISFACTORY
8	DELOS REYES, NORMAN DAVID FARISCAL	92.0000	OUTSTANDING	86.4000	VERY SATISFACTORY	69.6626	SATISFACTORY	100.0000	OUTSTANDING	75.8038	VERY SATISFACTORY
9	FERNANDO, RONALD D	98.0000	OUTSTANDING	100.0000	OUTSTANDING	82.2072	VERY SATISFACTORY	100.0000	OUTSTANDING	87.1450	VERY SATISFACTORY
10	KHAN, MA. LEONA	92.0000	OUTSTANDING	75.2000	VERY SATISFACTORY	73.9648	VERY SATISFACTORY	90.4000	VERY SATISFACTORY	77.6954	VERY SATISFACTORY
11	LEGARDA, MARY ANN VILLA	91.2000	OUTSTANDING	87.6000	VERY SATISFACTORY	72.4466	VERY SATISFACTORY	100.0000	OUTSTANDING	77.7126	VERY SATISFACTORY
12	LORICO, JULIAN L.	94.8000	OUTSTANDING	100.0000	OUTSTANDING	81.7196	VERY SATISFACTORY	100.0000	OUTSTANDING	86.1637	VERY SATISFACTORY
13	MADRIGALEJOS, DANILO JR. C.	93.2000	OUTSTANDING	88.8000	VERY SATISFACTORY	88.6706	VERY SATISFACTORY	99.2000	OUTSTANDING	89.5894	VERY SATISFACTORY
14	MAHAGUAY, ROLITO LACEDA	100.0000	OUTSTANDING	100.0000	OUTSTANDING	91.8212	OUTSTANDING	100.0000	OUTSTANDING	94.2748	OUTSTANDING
15	NATIVIDAD, FERDINAND O	94.8000	OUTSTANDING	100.0000	OUTSTANDING	74.9954	VERY SATISFACTORY	100.0000	OUTSTANDING	81.4568	VERY SATISFACTORY
16	NATIVIDAD, MARK KERVIN	94.0000	OUTSTANDING	88.8000	VERY SATISFACTORY	90.8962	VERY SATISFACTORY	100.0000	OUTSTANDING	91.3073	OUTSTANDING
17	OQUINDO, FLORINDA H	100.0000	OUTSTANDING	100.0000	OUTSTANDING	80.5744	VERY SATISFACTORY	92.0000	OUTSTANDING	86.4021	VERY SATISFACTORY







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### First Semester S.Y. 1819 Supervisor Evaluator 2 Student Evaluation Self Evaluation Over-all Evaluation Supervisor Evaluator 1 Rating Interpretation Rating Interpretation Rating Interpretation Rating Interpretation Interpretation Name of Faculty Rating VERY 96.0000 OUTSTANDING 92.2572 OUTSTANDING OUTSTANDING 88.9388 PAJABERA, ORLANDO 100.0000 OUTSTANDING 100.0000 SATISFACTORY 94.0791 OUTSTANDING OUTSTANDING REYES, LUTZER UGTO OUTSTANDING 100.0000 OUTSTANDING 92.113 OUTSTANDING 100.0000 98.0000 19 RODRIGUEZ, JOSHUA OUTSTANDING 89 1298 OUTSTANDING 100.0000 OUTSTANDING 100.0000 97.2000 20 SATISFACTORY SATISFACTORY BENJAMIN OUTSTANDING SAWI, CHRISTOPHER M. OUTSTANDING 89.6000 91.1376 OUTSTANDING 100.0000 OUTSTANDING 91.5563 94.0000 21 SATISFACTORY VERY OUTSTANDING OUTSTANDING 92.9020 94.4314 No Evaluation SUNGA, BOB MATHEW 94.0000 OUTSTANDING 80.0000 22 SATISFACTORY VERY 100.0000 OUTSTANDING 88.3691 100.0000 OUTSTANDING 83.3844 OUTSTANDING TENERIFE JR, PEDRITO 100.0000 SATISFACTORY SATISFACTORY VERY VERY VERY TRIA, ROMAN ANGELO 89.3535 94.0000 OUTSTANDING 90.0000 83.2000

Faculty Online Evaluation SUMMARY OF RESULTS

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VFRY

80.8708

SATISFACTORY

OUTSTANDING

OUTSTANDING

100.0000

96.4000

VELASCO, ANTONIO Y.

VERZO, ALLAN



P.F. I.1.6 I.1. demonstrate skills and competencies in all of the following: I.1.6. innovativeness and resourcefulness in the different instructional processes; Documents attached: SAMPLE SYLLABUS







### Vision

Clearing the paths while laying new foundations to transform the Polytechnic University of the Philippines into an epistemic community.

### Mission

Reflective of the great emphasis being given by the country's leadership aimed at providing appropriate attention to the alleviation of the plight of the poor, the development citizens, and of the national economy to become globally competitive, the University shall commit its academic resources and manpower to achieve its goals through:

- o Provision of undergraduate and graduate education which meet international standards of quality and excellence;
- o Generation and transmission of knowledge in the broad range of disciplines relevant and responsive to the dynamically changing domestic and international environr
- o Provision of more equitable access to higher education opportunities to deserving and qualified Filipinos; and
- o Optimization, through efficiency and effectiveness, of social, institutional, and individual returns and benefits derived from the utilization of higher education resources

### Goals

- 1. Provide quality education through instruction, advance research and extension services.
- 2. Produce world-class professionals as potential industry leaders and job providers.
- 3. Develop and produce facilities through the use of adapted technology and indigenous materials.
- 4. Maintain, upgrade or improve facilities through the applications of engineering technology.

### Objectives

- 1. Strengthen the Bachelor of Science in Computer Engineering program consistent with global trends;
- 2. Develop the critical thinking and communication skills of students, giving emphasis to research and extension services;
- 3. Enhance the competencies of students to evaluate, assess, design and operate safe, effective, economically-efficient and environmental friendly computer-based system;
- 4. create a conducive teaching and learning atmosphere with emphasis to Bachelor of Science in Computer Engineering faculty and students' growth and academic freedom;





5. establish network with educational institutions, Industries, GO's and NGO's, local and international, which could serve as:

a. Funding sources and/or partners of researches;

b. Sources of new technology;

c. Centers for faculty and students' exchange programs and on-the-job trainings; and

d. Grantees of scholarship/additional facilities.

6. conduct continuously action researches on the needs of laboratory and other facilities that could be locally produced or innovated using local materials and adapted technological materials.

7. equip graduates with appropriate knowledge and technical skills imbued with desirable work attitudes and moral values, through enhanced teaching/learning process by multimedia facilities on top of traditional methods:

8. develop faculty as competent mentors and quality researchers through advanced studies and other facets of continuing professional education

Course Title : OBJECT-ORIENTED PROGRAMMING

Course Code : COEN 3444

Course Credit : 4 units

Pre-Requisite : COEN 3340 (DATA STRUCTURES and ALGORITHM ANALYSIS)

Course Description : This course introduces new techniques and concepts of programming. Java will be use as the programming language and as tool to implement object-on programming. Consequently, students will acquaint themselves with new syntax that is used to program Java programs. Object oriented programming as one of the classifications of program and other object oriented related topics. This course takes as fact that the students have all learned the basic concepts of programming.

	Institutional Learning Outcomes	Program Outcomes	Course Objectives
1.	Creative and Critical Thinking	Use of contemporary problem solving in the analysis, design, and evaluation of computer and software systems, including system integration and implementation.	After completing the course, the student must be able to:
2.	Effective Communication	Communicate effectively with the computing community and with society at large (in local and international scenes) about engineering activities by being able to comprehend and write effective reports, design documentation, make effective presentations, and give and understand clear instructions.	Learn the basic syntax and language ru of Java  Understand the different control structur
3.	Strong Service Orientation	Share expertise in literacy, productivity, and livelihood technology to the	and their functions in programs
4.	Community Engagement	adopted community	✓ Learn the behavior and concepts of obje
5.	Adeptness in the Responsible Use of Technology	Use the techniques, skills and modern computer engineering tools necessary for engineering practice.	and classes
6.	Passion to Life-Long Learning	Engage in life-long learning and an understanding of the need to keep current of the developments in the specific field of practice.	<ul> <li>Understand the use and the significance encapsulation, polymorphism, inheritance</li> </ul>
7.	High Level of Leadership and Organizational Skills	Knowledge and understanding computer engineering and management principles as a member and a leader in a team, to manage projects and in	and abstraction



			) (				) (
			multidisciplinary environment.				themselves with error and andling code
8. Sense of	of Personal and Professional Ethic	S	Recognition of professional, so	ocial, and ethical responsibility			
9. Sense o	of Nationalism and Global Respon	siveness	The broad education neces engineering solutions in global	sary to understand the impa and societal context.	act of computer		erent data structures and available in the Java standa
						✓ Learn how to write to outp	o read from input streams a out streams
						✓ Create custo API	om GUI using the Java Swi
							the concept behind single and applications
							knowledge of object orieg in writing Java programs
						programming	g iii wilding Java programs
COURSE PLA							y iir witting Java programs
COURSE PLA	AN Topic	L	earning Outcomes	Methodology	Reso		Assessment
	Topic  Class orientation Discussion of course goals, expected outcomes, course policies and grading system Assigning of Groups and	Familiarize Education Orient th syllabus, g	e student on Outcome-Based	Orientation  Review of the syllabus, learning activities and assessment			
Week	Topic  Class orientation Discussion of course goals, expected outcomes, course policies and grading system	Familiarize Education Orient th	e student on Outcome-Based	Orientation  Review of the syllabus, learning activities and		urces	Assessment
Week	Topic  Class orientation Discussion of course goals, expected outcomes, course policies and grading system Assigning of Groups and	Familiarize Education Orient th syllabus, g rules Explain th	e student on Outcome-Based	Orientation  Review of the syllabus, learning activities and assessment		urces Syllabus /afaq.nu/java-	Assessment
Week Week 1	Topic  Class orientation Discussion of course goals, expected outcomes, course policies and grading system Assigning of Groups and Officers	Familiarize Education Orient th syllabus, g rules Explain th Procedur	e student on Outcome-Based e student on the course grading system and classroom	Orientation  Review of the syllabus, learning activities and assessment  Getting to know activity	Course :	urces Syllabus /afaq.nu/java-	Assessment None





Week 6	Objects and Classes in Java	Understand the difference between procedural and object oriented	Lecture/Discussion	http://www.javafaq.nu/java-	Quiz
vveek o	Classes Access Modifiers Methods and Attributes Constructors Class Methods and Class Variables	programming.  Learn the benefits of COP.  Learn how to define a class.  Understand the concepts and significance of UML.  Create Java programs to solve problems using array and array functions.  Create a UML design of a given	Program Demonstration Recitation/Board work	article669.html	Machine Proble Program Tracin Hands-on Activi
Week 7	Declaring Classes     Methods     String Manipulations     Encapsulation     Types of Java Methods	program.  Understand the concepts of declaring classes.  Understand the java methods.  Learn the concepts of string manipulation in Java.  Create Java programs to solve problems that require different types of Java method.	Lecture/Discussion Program Demonstration Recitation/Board work	_http://www.javafaq.nu/java- article664.html	Long Quiz Machine Problet Hands-on Activit Practical Exam
Week 8	Polymorphism and Inheritance Importance of Inheritance Importance of Polymorphism Methods overriding and	Understand the concepts of polymorphism.  Learn different way of using inheritance in Java.  Create Java programs to solve problems that require polymorphism	Lecture/Discussion Program Demonstration Recitation/Board work	http://www.javafaq.nu/java- article422.html	Machine Probler Practical Exam Hands-on Activit





Week 6	Objects and Classes in Java Classes Access Modifiers Methods and Attributes Constructors Class Methods and Class Variables	Understand the difference between procedural and object oriented programming.  Learn the benefits of COP.  Learn how to define a class.  Understand the concepts and significance of UML.  Create Java programs to solve problems using array and array functions.  Create a UML design of a given program.	Lecture/Discussion Program Demonstration Recitation/Board work	http://www.javafaq.nu/java- article669.html	Quiz Machine Problem Program Tracing Hands-on Activity
Week 7	Declaring Classes  Methods String Manipulations Encapsulation Types of Java Methods	Understand the concepts of declaring classes.  Understand the java methods.  Learn the concepts of string manipulation in Java.  Create Java programs to solve problems that require different types of Java method.	Lecture/Discussion Program Demonstration Recitation/Board work	_http://www.javafaq.nu/java- article664.html	Long Quiz Machine Problem Hands-on Activity Practical Exam
Week 8	Polymorphism and Inheritance Importance of Inheritance Importance of Polymorphism Methods overriding and	Understand the concepts of polymorphism.  Learn different way of using inheritance in Java.  Create Java programs to solve problems that require polymorphism	Lecture/Discussion Program Demonstration Recitation/Board work	http://www.javafaq.nu/java- article422.html	Machine Problem Practical Exam Hands-on Activity





	Overloading	and inheritance.			
Week 9		MIC	OTERM EXAMINATION		
Week 10	Exception and Assertion     Importance of Exceptions in Java     Customizing a Java Exception     Importance of Assertions in Java programs     Writing Java programs that implements exceptions handling and assertions	Understand the significance and the concepts of exception in Java.  Learn how to create a customized exception.  Understand the concepts of using Assertion in Java.  Differentiate the Exception and Assertion.  Create Java program to solve problems that require handling exceptions and assertion.	Lecture/Discussion Program Demonstration Recitation/Board work	Wu, Thomas C. An Introduction to Object- Oriented Programming,  http://www.javafaq.nu/java- article562.html	Short Quiz Machine Problem Practical Exam Assignment
Week 11	Collections Framework  Collection  Set  List  Map	Enumerate the different Collection Frameworks  Understand the concepts of collection Frameworks	Lecture/Discussion Program Demonstration Recitation/Board work	Wu, Thomas C. An Introduction to Object- Oriented Programming,  http://www.javafaq.nu/java- article673.html	Peer Programming Recitation Practical Exam Quiz
Week 12	Input and Output Streams  InputStream/ OutputStream Classes  Reader/Writer Classes  File Handler Classes	Comprehend the applications of I/O streams with Java  Apply the Input and Output Streams with Java	Lecture/Discussion Program Demonstration Recitation/Board work	http://www.javafaq.nu/java- article680.html	Group Work Oral Participation Hands-On Activity Assignment





Week 13	GUI Development  • AWT Graphical Components  • Event Handling	Evaluate the AWT Graphical Components and Event handling Create a Graphical User Interface	Lecture/Discussion Program Demonstration	http://www.javafaq.nu/java- article672.html	Long Quiz
	Anonymous Classes	(GUI)	Recitation/Board work	Wu, Thomas C. An Introduction to Object- Oriented Programming	Practical Exam
Week 14	Thread  Thread Lifecycle  Thread Synchronization  Critical Sections	Understand the concepts of threading in Java.  Create Java program to solve problems that require multi-threading in Java.	Lecture/Discussion Program Demonstration Recitation/Board work	http://www.javafaq.nu/java- article673.html Malik, D. S. Java Programming	Short Quiz Machine Problem Program Tracing
Week 15	Other Java Classes  Abstract Class  Interfaces	Evaluate Classes used in Java  Create an Abstract Class and Interfaces	Lecture/Discussion Program Demonstration Recitation/Board work	http://www.javafaq.nu/java- article422.html Malik, D. S. <i>Java Programming</i>	Oral Participation Hands-On Activity Practical Exam
Week 16	APPLICATION PROJECT PRESENTATION	Culminating activity given to the grouped students to test their mastery of the course by developing application programs utilizing all the theories and concepts acquired	Project Presentation  System Walk-through  Simulation	Application Project Documentation Developed System	Project Deliberatio
Week 17	APPLICATION PROJECT PRESENTATION	Culminating activity given to the students to test their mastery of the course by developing application programs utilizing all the theories and concepts acquired	Project Presentation  System Walk-through  Simulation	Application Project Documentation Developed System	Project Deliberation
Week 18		FINANCE FINANC	NAL EXAMINATION		





Midterm Grade Lecture: 70%	Final Grade	
Midterm Grade		
	Final Grade	
<ul> <li>✓ Class Standing (60%)</li> <li>45% Long Quiz (Average of 3 Quizzes)</li> </ul>	Class Standing (60%) 40% Long Quiz (Average of 3 Quizzes)	
25% Seatwork, Assignments, Recitations (Class Participation)	25% Seatwork, Assignments, Recitations (Class Participation)	
35% Short Quizzes	35% Short Quizzes	
✓ Midterm Examination (40%) Lab: 30%	Final Examination (40%)	
Midterm Grade	Final Grade	
<ul> <li>✓ Class Standing (60%)</li> <li>40% Laboratory Exercises / Machine Problems</li> </ul>	<ul> <li>✓ Class Standing (60%)</li> <li>40% Laboratory Exercises / Machine Problems</li> </ul>	
35% Project	35% Project	
25% Practical Exam	25% Practical Exam	
Midterm Examination (40%)	✓ Final Examination (40%)	
Passing Mark: 75%	Passing Mark: 75%	





Rev. No. Description of Change  1 Format to OBE	Approved by Engr. Julius S. Cansino	Effective Date SY 2017-2018
1 Format to OBE	Engr. Julius S. Cansino	SY 2017-2018
Prepared by:  DR. ARVIMR. DE LA CRUZ  Name of Faculty	Approved by:  ENGR. JULIUS & CANSIN Chair or son  Approved by:  ENGR. GUILLERMO O. BERNABE  Dean  DR. MANUEL M. MUHI  Vice President for Academic Affairs	2





P.F. 1.7 I.1. demonstrate skills and competencies in all of the following: I.1.7. integration of values and work ethics in the teaching-learning process; Documents attached: SAMPLE SYLLABUS







### Vision

Clearing the paths while laying new foundations to transform the Polytechnic University of the Philippines into an epistemic community.

### Mission

Reflective of the great emphasis being given by the country's leadership aimed at providing appropriate attention to the alleviation of the plight of the poor, the development citizens, and of the national economy to become globally competitive, the University shall commit its academic resources and manpower to achieve its goals through:

- o Provision of undergraduate and graduate education which meet international standards of quality and excellence;
- o Generation and transmission of knowledge in the broad range of disciplines relevant and responsive to the dynamically changing domestic and international environment.
- o Provision of more equitable access to higher education opportunities to deserving and qualified Filipinos; and
- o Optimization, through efficiency and effectiveness, of social, institutional, and individual returns and benefits derived from the utilization of higher education resource:

### Goals

- 1. Provide quality education through instruction, advance research and extension services.
- 2. Produce world-class professionals as potential industry leaders and job providers.
- 3. Develop and produce facilities through the use of adapted technology and indigenous materials.
- 4. Maintain, upgrade or improve facilities through the applications of engineering technology.

### Objectives

- 1. Strengthen the Bachelor of Science in Computer Engineering program consistent with global trends;
- 2. Develop the critical thinking and communication skills of students, giving emphasis to research and extension services;
- 3. Enhance the competencies of students to evaluate, assess, design and operate safe, effective, economically-efficient and environmental friendly computer-based system;
- 4. create a conducive teaching and learning atmosphere with emphasis to Bachelor of Science in Computer Engineering faculty and students' growth and academic freedom;





5. establish network with educational institutions, Industries, GO's and NGO's, local and international, which could serve as:

a. Funding sources and/or partners of researches;

b. Sources of new technology;

c. Centers for faculty and students' exchange programs and on-the-job trainings; and

d. Grantees of scholarship/additional facilities.

6. conduct continuously action researches on the needs of laboratory and other facilities that could be locally produced or innovated using local materials and adapted technological materials and adapted technological materials.

7. equip graduates with appropriate knowledge and technical skills imbued with desirable work attitudes and moral values, through enhanced teaching/learning process by multimedia facilities on top of traditional methods;

8. develop faculty as competent mentors and quality researchers through advanced studies and other facets of continuing professional education

Course Title : OBJECT-ORIENTED PROGRAMMING

Course Code : COEN 3444

Course Credit : 4 units

Pre-Requisite : COEN 3340 (DATA STRUCTURES and ALGORITHM ANALYSIS)

Course Description: This course introduces new techniques and concepts of programming. Java will be use as the programming language and as tool to implement object-or programming. Consequently, students will acquaint themselves with new syntax that is used to program Java programs. Object oriented programming as one of the classifications of program mainly introduces the use of objects, methods, variables, abstraction, interface, polymorphism and other object oriented related topics. This course takes as fact that the students have all learned the basic concepts of programming.

	Institutional Learning Outcomes	Program Outcomes		Course Objectives
1.	Creative and Critical Thinking	Use of contemporary problem solving in the analysis, design, and evaluation of computer and software systems, including system integration and implementation.		er completing the course, the student ust be able to:
2.	Effective Communication	Communicate effectively with the computing community and with society at large (in local and international scenes) about engineering activities by being able to comprehend and write effective reports, design documentation, make effective presentations, and give and understand clear instructions.	1	Learn the basic syntax and language ru of Java  Understand the different control structure
3.	Strong Service Orientation	Share expertise in literacy, productivity, and livelihood technology to the		and their functions in programs
4.	Community Engagement	adopted community	1	Learn the behavior and concepts of obj
5.	Adeptness in the Responsible Use of Technology	Use the techniques, skills and modern computer engineering tools necessary for engineering practice.		and classes
6.	Passion to Life-Long Learning	Engage in life-long learning and an understanding of the need to keep current of the developments in the specific field of practice.	1	Understand the use and the significance encapsulation, polymorphism, inheritant
7.	High Level of Leadership and Organizational Skills	Knowledge and understanding computer engineering and management principles as a member and a leader in a team, to manage projects and in		and abstraction



			) (				) (	
			multidisciplinary environment.				themselves with error and	
	f Personal and Professional Ethic		Recognition of professional, s	ocial, and ethical responsibility		exception handling code		
	f Nationalism and Global Respor	nsiveness	The broad education neces	ssary to understand the impa I and societal context.	act of computer	collections a library  Learn how to write to outp  Create custo API  Understand i multi-threade  Apply the k	erent data structures and available in the Java standar or ead from input streams a ut streams and guild a	
COURSE PLA	N							
Week	Topic	L	earning Outcomes	Methodology	Reso	urces	Assessment	
Week 1	Class orientation Discussion of course goals, expected outcomes, course policies and grading system Assigning of Groups and Officers	Education Orient th	e student on Outcome-Based e student on the course grading system and classroom	Orientation  Review of the syllabus, learning activities and assessment  Getting to know activity	Course S		None	
Week 2	Object-Oriented Concepts  • Procedural Programming vs. Object-Oriented Programming	Procedur	ne difference between a all Programming and OOP	Lecture/Discussion Program Demonstration	http://www.jav article38		Quiz Hands-on Activity	
				Recitation/Board work			Recitation	





	Object-Oriented     Programming Concepts			Java Programming	
Week 3	Java Fundamentals - Anatomy of a Basic Java Program  Comments Primitive Data Types Expressions and Operators Reference Types	Familiarize the Java Language Fundamentals  Compile a basic program using Java Syntax	Lecture/Discussion Program Demonstration Recitation/Board work	http://www.javafaq.nu/java- article386.html Malik, D. S. Java Programming	Quiz Hands-on Activity Assignment Recitation
Week 4	Flow Controls  Conditional Statements  Looping Statements	Understand how the various flow control statements could be useful in Java programs.  Understand the concepts of conditional statements in Java.  Create Java programs to solve problems using various Flow Control statements and conditional statements	Lecture/Discussion Program Demonstration Recitation/Board work	Wu, Thomas C. An Introduction to Object- Oriented Programming,	Quiz Machine Problem Program Tracing Practical Exam
Week 5	Arrays     array declaration     memory allocation     array initialization     accessing and storing values in arrays     multidimensional array	Understand the concepts of array.  Learn how to use array in Java.  Create Java programs to solve problems using array.	Lecture/Discussion Program Demonstration Recitation/Board work	Skrien, D. Object-Oriented Design Using Java	Quiz Machine Problem Practical Exam Recitation





	Objects and Classes in Java	Understand the difference between			Quiz
Week 6	Classes  Access Modifiers  Methods and Attributes  Constructors  Class Methods and Class Variables	procedural and object oriented programming.  Learn the benefits of COP.  Learn how to define a class.  Understand the concepts and significance of UML.  Create Java programs to solve problems using array and array functions.  Create a UML design of a given	Lecture/Discussion Program Demonstration Recitation/Board work	http://www.javafaq.nu/java- article669.html	Machine Proble Program Tracir Hands-on Activ
Week 7	Declaring Classes  Methods String Manipulations Encapsulation Types of Java Methods	program.  Understand the concepts of declaring classes.  Understand the java methods.  Learn the concepts of string manipulation in Java.  Create Java programs to solve problems that require different types of Java method.	Lecture/Discussion Program Demonstration Recitation/Board work	_http://www.javafaq.nu/java- article664.html	Long Quiz Machine Proble Hands-on Activi Practical Exam
Week 8	Polymorphism and Inheritance Importance of Inheritance Importance of Polymorphism Methods overriding and	Understand the concepts of polymorphism.  Learn different way of using inheritance in Java.  Create Java programs to solve problems that require polymorphism	Lecture/Discussion Program Demonstration Recitation/Board work	http://www.javafaq.nu/java- article422.html	Machine Problei Practical Exam Hands-on Activit





	Overloading	and inheritance.			
Week 9		l	TERM EXAMINATION		
Week 10	Exception and Assertion     Importance of Exceptions in Java     Customizing a Java Exception     Importance of Assertions in Java programs     Writing Java programs that implements exceptions handling and assertions	Understand the significance and the concepts of exception in Java.  Learn how to create a customized exception.  Understand the concepts of using Assertion in Java.  Differentiate the Exception and Assertion.  Create Java program to solve problems that require handling exceptions and assertion.	Lecture/Discussion Program Demonstration Recitation/Board work	Wu, Thomas C. An Introduction to Object- Oriented Programming,  http://www.javafaq.nu/java- article562.html	Short Quiz Machine Problem Practical Exam Assignment
Week 11	Collections Framework  Collection  Set  List  Map	Enumerate the different Collection Frameworks  Understand the concepts of collection Frameworks	Lecture/Discussion Program Demonstration Recitation/Board work	Wu, Thomas C.  An Introduction to Object- Oriented Programming,  http://www.javafaq.nu/java- article673.html	Peer Programming Recitation Practical Exam Quiz
Week 12	Input and Output Streams  InputStream/ OutputStream Classes Reader/Writer Classes  File Handler Classes	Comprehend the applications of I/O streams with Java  Apply the Input and Output Streams with Java	Lecture/Discussion Program Demonstration Recitation/Board work	http://www.javafaq.nu/java- article680.html	Group Work Oral Participation Hands-On Activity Assignment

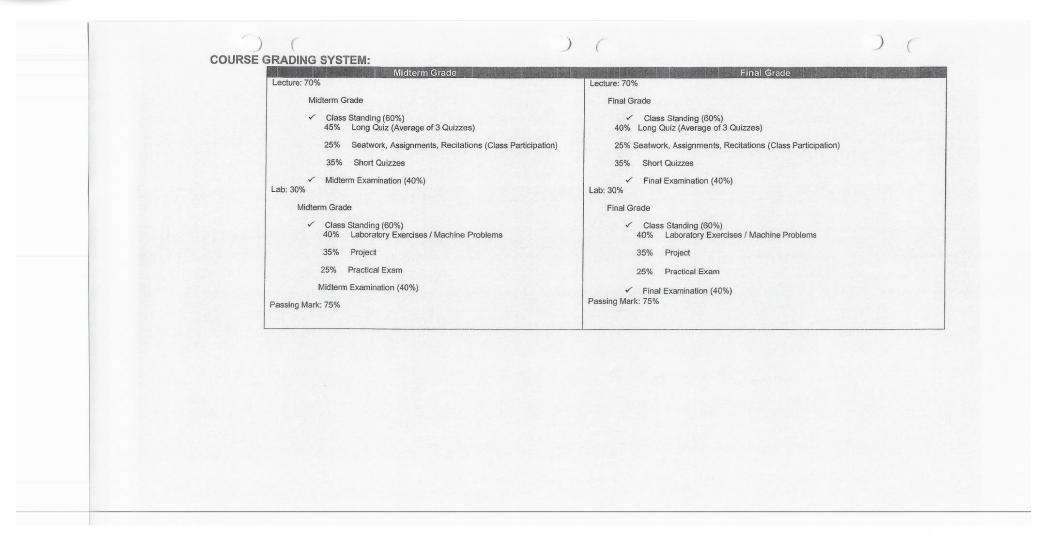




Week 13	GUI Development	Evaluate the AWT Graphical Components and Event handling	Lecture/Discussion	http://www.javafaq.nu/java-	Long Quiz
	AWT Graphical Components     Event Handling	Create a Graphical User Interface (GUI)	Program Demonstration	article672.html	Machine Problem
	Anonymous Classes		Recitation/Board work	Wu, Thomas C. An Introduction to Object- Oriented Programming	Practical Exam
	Thread				
Week 14	Thread Lifecycle	Understand the concepts of threading in Java.	Lecture/Discussion Program Demonstration	http://www.javafaq.nu/java- article673.html	Short Quiz
	Thread Synchronization	Create Java program to solve problems	r logialii belilolistiatioli		Machine Problem
	Critical Sections	that require multi-threading in Java.	Recitation/Board work	Malik, D. S. Java Programming	Program Tracing
Week 15	Other Java Classes				
		Evaluate Classes used in Java	Lecture/Discussion	http://www.javafaq.nu/java-	Oral Participation
	Abstract Class		Program Demonstration	article422.html	
	Interfaces	Create an Abstract Class and Interfaces	Program Demonstration	Malik, D. S.	Hands-On Activity
			Recitation/Board work	Java Programming	Practical Exam
Week 16		Culmination assists as a star	Project Presentation	Application Project	
	APPLICATION PROJECT	Culminating activity given to the grouped students to test their mastery	System Walk-through	Documentation	Project Deliberation
	PRESENTATION	of the course by developing application	Cyclom Walk timough	Developed System	
		programs utilizing all the theories and concepts acquired	Simulation		
Neek 17			Project Presentation	Application Project	
	APPLICATION PROJECT	Culminating activity given to the students to test their mastery of the	System Walk-through	Documentation	Project Deliberation
	PRESENTATION	course by developing application	System walk-through	Developed System	
		programs utilizing all the theories and concepts acquired	Simulation		
Veek 18			IAL EXAMINATION		











		REVISION HISTORY	
Rev. No.	Description of Change	Approved by	Effective Date
1	Format to OBE	Engr. Julius S. Cansino	SY 2017-2018
	Prepared by:  DR. ARVIN'R. DE LA CRUZ  Name of Faculty	Approved by:  ENGR. JULIA & CANSI Charrierson  Approved by:  ENGR. GUILLERMO O. BERNABE Dean  DR. MANUEL M. MUHI Vice President for Academic Affairs	NO.





P.F. I.18 I.1. demonstrate skills and competencies in all of the following: I.1.8. integration of Gender and Development (GAD) activities Documents attached: SAMPLE SYLLABUS





Gender and Development (GAD) activities were integrated during class discussion. In most cases GAD activities were done in the Computer Engineering Ethics and Laws.







### Vision

Clearing the paths while laying new foundations to transform the Polytechnic University of the Philippines into an epistemic community.

### Mission

Reflective of the great emphasis being given by the country's leadership aimed at providing appropriate attention to the alleviation of the plight of the poor, the development citizens, and of the national economy to become globally competitive, the University shall commit its academic resources and manpower to achieve its goals through:

- o Provision of undergraduate and graduate education which meet international standards of quality and excellence;
- o Generation and transmission of knowledge in the broad range of disciplines relevant and responsive to the dynamically changing domestic and international environr
- o Provision of more equitable access to higher education opportunities to deserving and qualified Filipinos; and
- Optimization, through efficiency and effectiveness, of social, institutional, and individual returns and benefits derived from the utilization of higher education resources

### Goals

- 1. Provide quality education through instruction, advance research and extension services.
- 2. Produce world-class professionals as potential industry leaders and job providers.
- 3. Develop and produce facilities through the use of adapted technology and indigenous materials.
- 4. Maintain, upgrade or improve facilities through the applications of engineering technology.

### Objectives

- 1. Strengthen the Bachelor of Science in Computer Engineering program consistent with global trends;
- 2. Develop the critical thinking and communication skills of students, giving emphasis to research and extension services;
- 3. Enhance the competencies of students to evaluate, assess, design and operate safe, effective, economically-efficient and environmental friendly computer-based system;
- 4. create a conducive teaching and learning atmosphere with emphasis to Bachelor of Science in Computer Engineering faculty and students' growth and academic freedom;





5. establish network with educational institutions, Industries, GO's and NGO's, local and international, which could serve as:

a. Funding sources and/or partners of researches;

b. Sources of new technology;

c. Centers for faculty and students' exchange programs and on-the-job trainings; and

d. Grantees of scholarship/additional facilities.

6. conduct continuously action researches on the needs of laboratory and other facilities that could be locally produced or innovated using local materials and adapted technology and topological produced or innovated using local materials and adapted technology.

 equip graduates with appropriate knowledge and technical skills imbued with desirable work attitudes and moral values, through enhanced teaching/learning process by multimedia facilities on top of traditional methods;

8. develop faculty as competent mentors and quality researchers through advanced studies and other facets of continuing professional education

Course Title : OBJECT-ORIENTED PROGRAMMING

Course Code : COEN 3444

Course Credit : 4 units

Pre-Requisite : COEN 3340 (DATA STRUCTURES and ALGORITHM ANALYSIS)

Course Description : This course introduces new techniques and concepts of programming. Java will be use as the programming language and as tool to implement object-on programming. Consequently, students will acquaint themselves with new syntax that is used to program Java programs. Object oriented programming as one of the classifications of program learned the basic concepts of programming.

1	Institutional Learning Outcomes Creative and Critical Thinking	Program Outcomes		Course Objectives
		Use of contemporary problem solving in the analysis, design, and evaluation of computer and software systems, including system integration and implementation.	Afi	ter completing the course, the student ust be able to:
2.	Effective Communication	Communicate effectively with the computing community and with society at large (in local and international scenes) about engineering activities by being able to comprehend and write effective reports, design documentation, make offective preports;	1	Learn the basic syntax and language ru of Java
3.	Strong Service Orientation	make effective presentations, and give and understand clear instructions.  Share expertise in literacy, productivity, and livelihood technology to the	1	Understand the different control structur
		adopted community		and their functions in programs
-	A. I.		1	Learn the behavior and concepts of obje
	Adeptness in the Responsible Use of Technology	Use the techniques, skills and modern computer engineering tools necessary for engineering practice.		and classes
-	Passion to Life-Long Learning	Engage in life-long learning and an understanding of the need to keep current of the developments in the specific field of practice.	1	Understand the use and the significance encapsulation, polymorphism, inheritance
7.	High Level of Leadership and Organizational Skills	Knowledge and understanding computer engineering and management		and abstraction
		principles as a member and a leader in a team, to manage projects and in		



							) (
			multidisciplinary environment.				ze themselves with error and handling code
8. Sense	of Personal and Professional Ethi	cs	Recognition of professional, s	social, and ethical responsibility		exception	Handling code
9. Sense o	of Nationalism and Global Respor	nsiveness	The broad education necesengineering solutions in global	ssary to understand the imp	act of computer		fferent data structures and available in the Java standa
						write to ou	to read from input streams a tput streams
						API	stom GUI using the Java Swi
						✓ Understand multi-threa	d the concept behind single a ded applications
						✓ Apply the programmi	knowledge of object orieng in writing Java programs
COURSE PLA	M						
COURSE PLA	NN Topic	L.e	earning Outcomes	Methodology	Resou	ırces	Assessment
	Topic  Class orientation Discussion of course goals, expected outcomes, course policies and grading system	Familiarize Education Orient the	earning Outcomes  student on Outcome-Based e student on the course rading system and classroom	Methodology Orientation Review of the syllabus, learning activities and assessment Getting to know activity	Resor Course S	Halland La	Assessment None
Week	Topic  Class orientation Discussion of course goals, expected outcomes, course policies and grading system Assigning of Groups and	Familiarize Education Orient the syllabus, g rules	student on Outcome-Based	Orientation  Review of the syllabus, learning activities and assessment		Syllabus afaq.nu/java-	
Week Week 1	Topic  Class orientation Discussion of course goals, expected outcomes, course policies and grading system Assigning of Groups and Officers	Familiarize Education Orient the syllabus, g rules  Explain th Procedura	student on Outcome-Based e student on the course rading system and classroom	Orientation  Review of the syllabus, learning activities and assessment  Getting to know activity	Course S	Syllabus afaq.nu/java-	None





	Object-Oriented     Programming Concepts			Java Programming	
Week 3	Java Fundamentals - Anatomy of a Basic Java Program  Comments Primitive Data Types Expressions and Operators Reference Types	Familiarize the Java Language Fundamentals  Compile a basic program using Java Syntax	Lecture/Discussion Program Demonstration Recitation/Board work	http://www.javafaq.nu/java- article386.html Malik, D. S. Java Programming	Quiz Hands-on Activ Assignment Recitation
Week 4	Flow Controls     Conditional Statements     Looping Statements	Understand how the various flow control statements could be useful in Java programs.  Understand the concepts of conditional statements in Java.  Create Java programs to solve problems using various Flow Control statements and conditional statements	Lecture/Discussion Program Demonstration Recitation/Board work	Wu, Thomas C. An Introduction to Object- Oriented Programming,	Quiz Machine Proble Program Tracin Practical Exam
Week 5	Arrays     array declaration     memory allocation     array initialization     accessing and storing values in arrays     multidimensional array	Understand the concepts of array.  Learn how to use array in Java.  Create Java programs to solve problems using array.	Lecture/Discussion Program Demonstration Recitation/Board work	Skrien, D. Object-Oriented Design Using Java	Quiz Machine Probler Practical Exam Recitation





Wook 6	Objects and Classes in Java				Quiz
Week 6	Classes     Access Modifiers     Methods and Attributes     Constructors     Class Methods and Class Variables	procedural and object oriented programming.  Learn the benefits of OOP.  Learn how to define a class.  Understand the concepts and significance of UML.  Create Java programs to solve problems using array and array functions.	Lecture/Discussion Program Demonstration Recitation/Board work	http://www.javafaq.nu/java- article669.html	Quiz Machine Proble Program Tracin Hands-on Activii
Week 7	Declaring Classes  Methods String Manipulations Encapsulation Types of Java Methods  Polymorphism and	Create a UML design of a given program.  Understand the concepts of declaring classes.  Understand the java methods.  Learn the concepts of string manipulation in Java.  Create Java programs to solve problems that require different types of Java method.	Lecture/Discussion Program Demonstration Recitation/Board work	_http://www.javafaq.nu/java- article664.html	Long Quiz Machine Problem Hands-on Activity Practical Exam
Week 8	Importance of Inheritance     Importance of Polymorphism	Understand the concepts of polymorphism.  Learn different way of using inheritance in Java.  Create Java programs to solve problems that require polymorphism	Lecture/Discussion Program Demonstration Recitation/Board work	http://www.javafaq.nu/java- article422.html	Machine Problem Practical Exam Hands-on Activity





	Overloading	and inheritance.			
Week 9		MIC	TERM EXAMINATION		
Week 10	Exception and Assertion     Importance of Exceptions in Java     Customizing a Java Exception     Importance of Assertions in Java programs     Writing Java programs that implements exceptions handling and assertions	Understand the significance and the concepts of exception in Java.  Learn how to create a customized exception.  Understand the concepts of using Assertion in Java.  Differentiate the Exception and Assertion.  Create Java program to solve problems that require handling exceptions and assertion.	Lecture/Discussion Program Demonstration Recitation/Board work	Wu, Thomas C. An Introduction to Object- Oriented Programming,  http://www.javafaq.nu/java- article562.html	Short Quiz Machine Problem Practical Exam Assignment
Week 11	Collections Framework  Collection Set List Map	Enumerate the different Collection Frameworks  Understand the concepts of collection Frameworks	Lecture/Discussion Program Demonstration Recitation/Board work	Wu, Thomas C.  An Introduction to Object- Oriented Programming,  http://www.javafaq.nu/java- article673.html	Peer Programming Recitation Practical Exam Quiz
Week 12	Input and Output Streams InputStream/ OutputStream Classes	Comprehend the applications of I/O streams with Java  Apply the Input and Output Streams with Java	Lecture/Discussion Program Demonstration Recitation/Board work	http://www.javafaq.nu/java- article680.html	Group Work Oral Participation Hands-On Activity Assignment

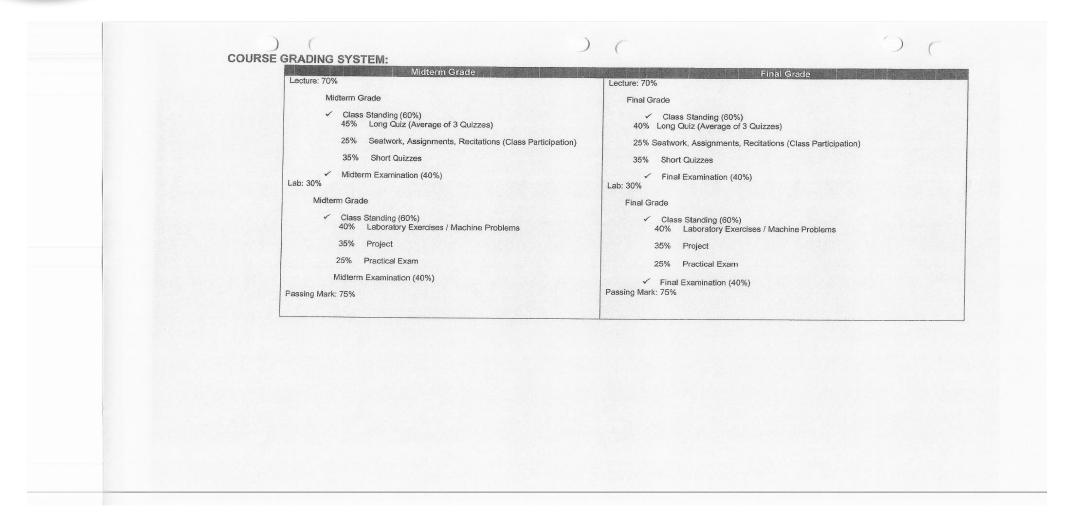




Week 13	GUI Development     AWT Graphical Components     Event Handling     Anonymous Classes	Evaluate the AWT Graphical Components and Event handling Create a Graphical User Interface (GUI)	Lecture/Discussion Program Demonstration Recitation/Board work	http://www.javafaq.nu/java- article672.html  Wu, Thomas C. An Introduction to Object- Oriented Programming	Long Quiz Machine Probler Practical Exam
Week 14	Thread  Thread Lifecycle  Thread Synchronization  Critical Sections	Understand the concepts of threading in Java.  Create Java program to solve problems that require multi-threading in Java.	Lecture/Discussion Program Demonstration Recitation/Board work	http://www.javafaq.nu/java- article673.html Malik, D. S. Java Programming	Short Quiz  Machine Problem  Program Tracing
Week 15	Other Java Classes      Abstract Class     Interfaces	Evaluate Classes used in Java  Create an Abstract Class and Interfaces	Lecture/Discussion Program Demonstration Recitation/Board work	http://www.javafaq.nu/java- article422.html Malik, D. S. <i>Java Programming</i>	Oral Participation Hands-On Activity Practical Exam
Week 16	APPLICATION PROJECT PRESENTATION	Culminating activity given to the grouped students to test their mastery of the course by developing application programs utilizing all the theories and concepts acquired	Project Presentation  System Walk-through  Simulation	Application Project Documentation  Developed System	Project Deliberatio
Week 17	APPLICATION PROJECT PRESENTATION	Culminating activity given to the students to test their mastery of the course by developing application programs utilizing all the theories and concepts acquired	Project Presentation  System Walk-through  Simulation	Application Project Documentation Developed System	Project Deliberation
Week 18		FINAL PROPERTY OF FINAL PROPER	AL EXAMINATION	TOTAL TOTAL ASSESSMENT	











		REVISION HISTORY	
Rev. No.	Description of Change	Approved by	Effective Date
1	Format to OBE	Engr. Julius S. Cansino	SY 2017-2018
	Prepared by:  DR. ARVIN R. DE LA CRUZ  Name of Faculty	Approved by:  ENGR. JULIUS & CANSINO Charrierson  Approved by:  ENGR. GUILLERMO O. BERNABE  Dean  DR. MANUEL M. MUHI  Vice President for Academic Affairs	

