School: **POLYTECHNIC UNIVERSITY OF THE PHILIPPINES**
Program: **Bachelor of Science in Computer Engineering**
Date of formal Survey:
Date of Level IV Phase 1 Accreditation Visit:

COMPLIANCE REPORT

Area III – Curriculum and Instructions

RECOMMENDATIONS	ACTION TAKEN BY HOST	DEGREE OF % OF COMPLIANCE	EVIDENCE OF COMPLIANCE
1. A committee for curriculum review may be created to include other stakeholders such as students, parents, industry representatives aside from faculty and administrators.	The CpE Department had created a Program Advisory Board that will be responsible for reviewing and monitors the development of Curriculum revision and also conducted alumni homecoming to its graduates.	100%	- Photos - Letter of invitation & Reply - CV of Advisory Board Members -Minutes of the meeting -Photos from the Virtual Alumni Homecoming
2. The institution may conduct regular training-workshop in writing an OBE-compliant syllabus.	The University implements through the Quality Assurance Centers training-workshop in writing OBE-compliant syllabus	100%	- Photos of Faculty who attended the QAC Workshop on TOS Preparation -Attendance Sheet of Faculty who attended the QAC Workshop on TOS Preparation -Captured Screenshot of Certificate issued by QAC for attending TOS Preparation -Copy of Memo from OVPAA on OBE-Compliant Syllabi

			- Sample Template of the Revised OBE Syllabus - Photo of the OBE Seminar-Workshop - Photo of Participants to the OBE Seminar conducted for the College of Engineering
3. Copy of syllabus shall be filed in all concerned offices.	The Office of the Dean and Chairperson has copies of Compilation of Syllabus	100%	-Photo of the Compiled Syllabus on the Dean's office and Chairperson's Office -Received memo of the Dean's Office
4. Creation of syllabi distribution list form may be considered.	The Department had created a syllabi list form to be used in the distribution of the syllabus to the students every start of the Semester.	100%	-Photo of the previous form used in the syllabus distribution. -Photo of the revised form for syllabus distribution -Screenshot of the uploaded Course Syllabus in MS-Teams for our Online Classes.

5. The college may consider keeping a record of periodic and comprehensive faculty development plan.	The College maintains a record of periodic and comprehensive faculty development plan.	100%	-Copy of the Faculty Development Plan submitted by the Department to the College and Office of the Vice President of Academic Affairs.
6. It is suggested to conduct a periodic graduate tracer study.	The University conducts a periodic tracer study on its graduates.	100%	-Copy of the PUP Graduates Tracer Study
7. The faculty members are encouraged to subject their develop IMs to University Textbook and IM Review Committee.	The University encouraged the faculty members to subject their IMs to the University Textbook and IM Review Committee.	100%	-Screenshot of the Uploaded IMs that has been evaluated by the IM Committee -Screenshot of the IM Committee Report on the IMs evaluated. -Screenshot of Certification from the Chairman of the Instruction Materials and Management Committee -Screenshot of the Cover Page of IMs produced by the CpE Faculty. -Screenshot of the excerpts from IMs produced by the CpE Faculty.

Prepared by:

Engr. Julius S. Cansino
Area III Task Force

Noted by:

Engr. Julius S. Cansino
Chairperson, CpE Department

Dr. Remedios G. Ado
Dean, College of Engineering

RECOMMENDATION #1

A committee for curriculum review may be created to include other stakeholders such as students, parents, industry representatives aside from faculty and administrators.

EVIDENCE OF COMPLIANCE

- Photos
- Letter of invitation and reply
- Curriculum Vitae of the CpE Program Advisory Board
- Photos of the CpE Virtual Alumni Homecoming

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ANONAS COR. PUREZA STREETS, STA. MESA, MANILA

Curriculum Vitae: Dr. Neil P. Baliba

CURRICULUM VITAE

I. PERSONAL INFORMATION

Name	Surname: Baliba	First Name: Neil	Middle Name: Perez
Address	Blk 23 Lt. 13 Ph 2 Lauan Rd., Acacia Park, Saimsim, Calamba City		
Contact Numbers	Landline:	Mobile Number: 0917-5667435	E-mail: neilbaliba@yahoo.com
Date of Birth: 08/17	Place of Birth: Batangas	Sex: Male	Civil Status: Married

II. EMPLOYMENT STATUS

Full time	/	Part Time		Probationary		Others: (Pls. Specify)

Faculty Rank: Professor A
Administrative Designation, if any :

III. ACADEMIC BACKGROUND (start with tertiary level onwards)

Degree Earned (Indicate Specialization, if any)	Name and Address of School/University	Year Graduated
Doctor of Technology	Technological University of the Philippines	2009
PhD in Management (Outstanding Graduate School Awardee)	Lyceum of the Philippines University - Laguna	2018
Master in Engineering with Specialization in Computer Engineering	Pamantasan ng Lungsod ng Maynila	2002
Master in Information Technology	Technological University of the Philippines	2014
Master of Arts in Information Technology Ed.(Academic Excellence Awardee)	Lyceum of the Philippines University -Batangas	2012
Master of Science in Information Technology	University of Perpetual Help Laguna	2020
Bachelor of Science in Computer Engineering	Polytechnic University of the Philippines	1993
Bachelor of Science in Information Technology	Asiatech	2013
Bachelor of Science in Information System	Asiatech	2017
Bachelor of Science in Computer Science	Asiatech	2015
Bachelor of Science in Education (Prof. Ed)	Rizal College of Calamba	2016
Bachelor of Science in Business Administration major in Operations Management	Lyceum of the Philippines University - Laguna	2019

IV. WORK EXPERIENCE

Academe Experience

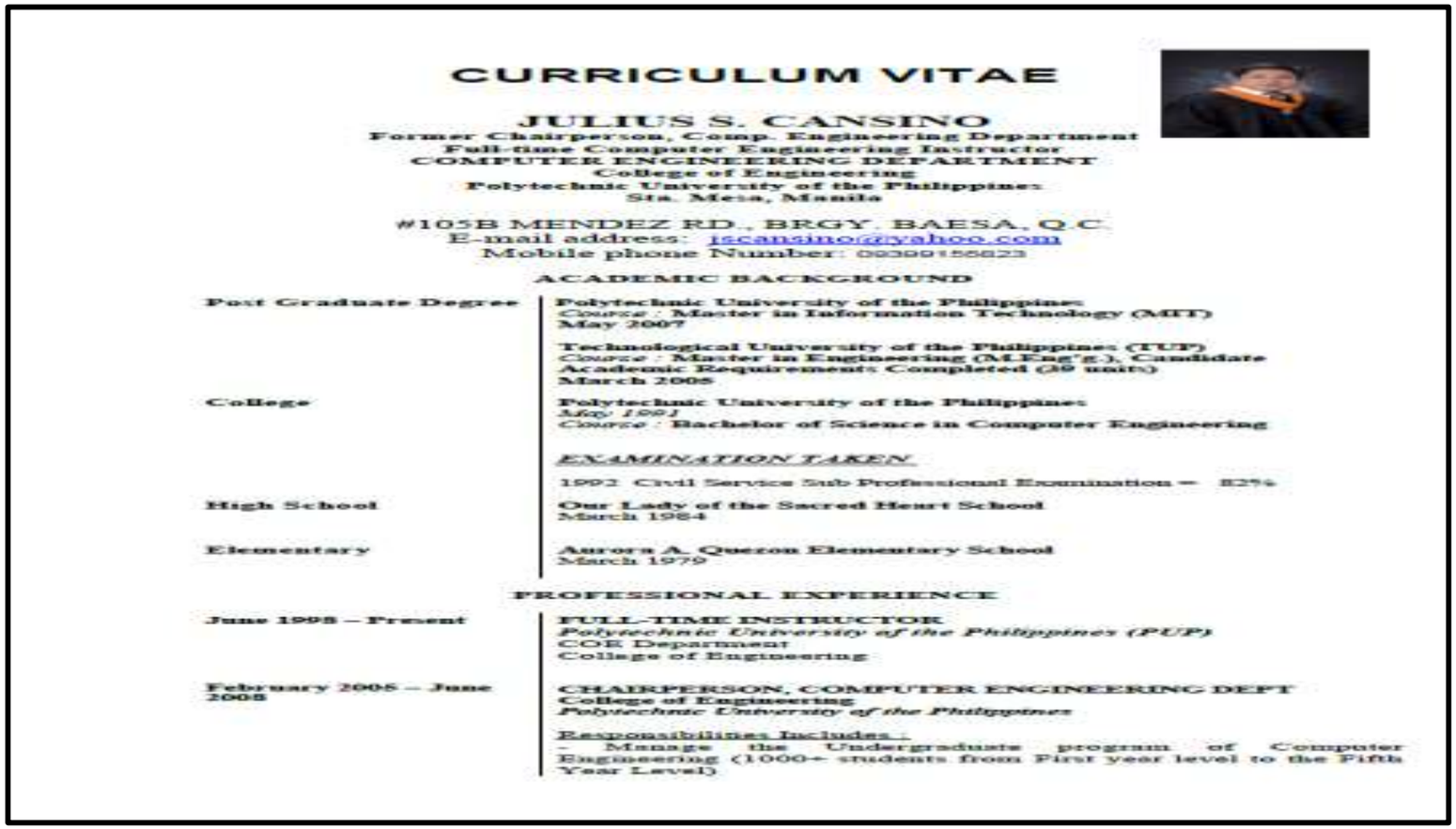
Position	School	Inclusive Dates	Length of Service
Director, Center for Innovation and Development/Department Chair, Computer Engineering	LPU-Laguna	August 1, 2020	Present
Virtual Learning Environment Director	LPU-L	December 2019	present
Dean, MEIT-MA ITE	LPU	present	
Department Chair, Computer Engineering	LPU-Laguna	2014-present	6 years
Dean, College of Computer Studies	LPU-Manila/LPU- Laguna	1996-2000/2001-2018	4 years/6years
Dean, College of Computer Studies	LPU-Laguna	2000-2008	8 years
Department Head, Master in ITE	LPU-Batangas	2013-2014	2 years
Faculty Member-Professor A	LPU-Manila	1994-2000	6 years
Faculty Member-Professor A	LPU-Laguna	2001-present	18 years
Faculty Member- PT	Mapua Institute of Technology	1995-2000	5 years
Faculty Member- PT	Colegio de San Juan de Letran, Intramuros	1995-2000	5 years
Graduate School Professor - PT	Pamantasan ng Lungsod ng Maynila	2003-present	15 years
Graduate School Professor - PT	LPU-Batangas	2010-present	8 years
Graduate School Professor - PT	Technological University of the Philippines	2010-present	8 years
Graduate School Professor - PT	Colegio de San Juan de Letran, Calamba	2010-present	8 years

Industry/Professional/Administrative Experience

Position	Company/Organization	Inclusive Dates	Length of Service
Project Manager, HKIS Project	Bellarocca Island Resort and Spa	2008-2012	4 years
Technical Panel, Information Technology of DOST	Bureau of Philippine Standards (DTI)	2017-present	2 years
Technical Panel and Advisor (international)	Malaysian Scientist Technology Association (MALSETAS- International)	2016-present	3 years
Honorary Fellowship and Advisor (international)	Institute for Engineering Research and Publication	2017-Present	2 years
International Paper Reviewer	MALSETAS- International Journal	2016- Present	3 years
International Paper Reviewer	International Journal - IFERP	2017-Present	2 Years

1

EXCERPT FROM THE CV SUBMITTED BY A MEMBER OF CPE PROGRAM ADVISORY BOARD



CURRICULUM VITAE

JULIUS S. CANSINO
Former Chairperson, Comp. Engineering Department
Full-time Computer Engineering Instructor
COMPUTER ENGINEERING DEPARTMENT
College of Engineering
Polytechnic University of the Philippines
Sta. Mesa, Manila

#105B MENDEZ RD., BRGY. BAESA, Q.C.
E-mail address: jscansino@yahoo.com
Mobile phone Number: 09399156823

ACADEMIC BACKGROUND

Post Graduate Degree

Polytechnic University of the Philippines
Course : Master in Information Technology (MIT)
May 2007

Technological University of the Philippines (TUP)
Course : Master in Engineering (M.Eng'g.), Candidate
Academic Requirements Completed (39 units)
March 2005

College

Polytechnic University of the Philippines
May 1991
Course : Bachelor of Science in Computer Engineering

EXAMINATION TAKEN

1992 Civil Service Sub Professional Examination — 82%

High School

Our Lady of the Sacred Heart School
March 1984

Elementary

Aurora A. Quezon Elementary School
March 1979

PROFESSIONAL EXPERIENCE

June 1998 – Present

FULL-TIME INSTRUCTOR
Polytechnic University of the Philippines (PUP)
COE Department
College of Engineering

February 2005 – June 2005

CHAIRPERSON, COMPUTER ENGINEERING DEPT
College of Engineering
Polytechnic University of the Philippines

Responsibilities Includes :
- Manage the Undergraduate program of Computer Engineering (1000+ students from First year level to the Fifth Year Level)

EXCERPT FROM THE CV SUBMITTED BY A MEMBER OF CPE PROGRAM ADVISORY BOARD

Dr. Ryan Soriente Evangelista, ISP, ITCP, ASEAN EngTech, PCpE

E-mail: [illegible]

+65 87984620

Prince 2 Foundation Certified, UK
Information Systems Professional of Canada (ISP)
Information Technology Certified Professional of Canada (ITCP)
ASEAN Engineering Technologist (ASEAN EngTech) awarded by Institution of Engineers Singapore
Professional Computer Engineer (PCpE) by CpECB Philippines

Objective

To work in a community of global leaders and to advanced the interest of the ASEAN professionals in the Global Stage.

Education Details

- **Master of Science in Aquaculture (Graduated August 2020)**
  Pangasinan State University – Open University System
  - *Thesis: Economics of Aquaculture on Selected Companies in Singapore*
- **Doctor of Information Technology (Graduated March 2017)**
  St. Linus University (Philippine Program CHED G.R. 077 Series 2010)
  - *Dissertation: Factors Affecting Users' Level of Trust and Sense of Security in E-Commerce Application*
- **Professional Education Course (18 units)**
  Eulogio "Amang" Rodriguez Institute of Science and Technology, Manila
- **Master of Science in Mathematics (Graduated October 2004)**
  Manuel L. Quezon University, Manila
  - *Thesis: Polynomial Approximation by Interpolation and Extrapolation: An Analysis*
- **Bachelor of Science in Computer Engineering (Graduated October 2001)**
  Central Colleges of the Philippines, Quezon City

Professional Organization

Singapore Computer Society – Professional Member
Institute of Computer Engineers of the Philippines – Singapore Chapter Founding President
Project Management Institute (United States) – Member
International Federation of Engineering Societies (United States) – Organization Representative
Canadian IT Professionals (CIPS- Canada) – Professional Certification Board Member
World Conference on Applied Science, Engineering and Technology – Peer Reviewer
Institute of Computer Engineers of the Philippines – National Vice-President for External Affairs
Philippine Society for Engineering Education – Interim Vice-President (Industry)
Institution of Aquaculture Singapore – Hon. Assistant Secretary

Work Experience

Senior Consultant and Project Manager
Quantum Systems Pte. Ltd. (Singapore)
July 23, 2019 to Present

Special Lecturer (Professor 3), Institute of Technology
Polytechnic University of the Philippines
October 5, 2020 to Present

EXCERPT FROM THE CV SUBMITTED BY A MEMBER OF CPE PROGRAM ADVISORY BOARD

ARVIN ROXAS DE LA CRUZ, Ph.D.
731 Tramo St., Manuyo Uno, Las Piñas City 1744
Cell #: Globe: +63917-8527846
Email: docardelacruz@gmail.com

SUMMARY OF QUALIFICATIONS

- ✓ *Serves as Academic head from different schools, consultant of different schools for permit to operate and recognition of ICT, Business, Engineering and TESDA courses, assistance in ICT organizations' affiliations.*
- ✓ *International Research Conference (IRC) Scientific and Technical Committee & Editorial Review Board on Computer and Systems Engineering*
- ✓ *Finished a post graduate degree courses in Doctor of Philosophy in Management (PhD in Mgt), Master of Science in Management Engineering (MS ManE) and Master in Information Technology (MIT).*
- ✓ *Practice IT Profession through development of different software in the ICT industry from system to web development.*
- ✓ *Recognized and affiliated by JEDI (Java Education & Development Initiative) to be one of the JEDI Champion and Trainer in Java programming, Solaris, Web Programming & Mobile Programming for Instructional purposes. JEDI is a under the SUN Microsystems Inc.*
- ✓ *Serves as resource speaker or trainer to different ICT and Business Seminars & Trainings.*
- ✓ *Serves as one of the Online Judge in the* **ThinkQuest International Competition 2011** *from May 16 – 27, 2011by* **ORACLE** *Foundation. Evaluating of software projects in the three areas namely ThinkQuest Projects Event, Digital Media Event and Application Development Event.*
- ✓ *Awarded as* **Man of the Year Award 2019 for Outstanding Dedication in the field of Information and Communication Technology** *by* **University Circle of Professional Educators (UCPE), Inc.** *at the 3rd UCPE International Conference last April 24, 2019.*
- ✓ *Serves as one of the* **PQA** *Assessor in Department of Trade and Industry - Philippine Quality Award (PQA)*
- ✓ *Awarded* **Best Presenter** *in* **19th World Conference in Applied Science, Engineering and Technology (WCASET)** *at* **Bangkok, Thailand** *last May 17, 2019*
- ✓ *Awarded* **Best Presenter** *in* **2nd ICAMEROB** *at* **Manila, Philippines** *via* **Virtual Conference** *last October 21, 2020*
- ✓ *One of the International Advisory Committee Member of the* **1st International Conference on Technology Innovative Educational and Multidisciplinary skills in the 21st century research" (ICTEMR_2021)**
- ✓ *Appointed* **Digital Transformation Committee** *member of Association of Universities in Asia and Pacific (AUAP) for April 2021 – 2024*
- ✓ **Editorial Board Member** *of the* **Isabela State University Linker** *in* **The Journal of Smart Technology and Artificial Intelligence** *and* **The Journal of Computing and Technology.**
- ✓ *Currently the* **President** *of Mechatronics and Robotics Society of the Philippine (MRSP) – NCR Chapter.*

EXCERPT FROM THE CV SUBMITTED BY A MEMBER OF CPE PROGRAM ADVISORY BOARD

CURRICULUM VITAE

RONALD L. RAMOS
Address: 1426-B Pagkakaisa St., Brgy. Kasilawan, Makati City, 1206 Philippines
Contact info: Mobile: +639177960814 / +639298874076
E-mail address: ronaldlramos@gmail.com

SUMMARY OF QUALIFICATIONS

- Over 20 years of extensive experience in systems and application development and technical training gained from diverse industries such as Telecommunications, Business Process Outsourcing, Academe, and Information Technology
- Valuable expertise in the fields of Mobile Application Development, Technical Training, Computer Programming, Web Development, and People and Organizational Development.

EXPERIENCE – AS CORPORATE

SMART COMMUNICATIONS, INC.
Senior Technical Capability Development Specialist
Learning and Development, Human Resource Division
March 2017 - Present

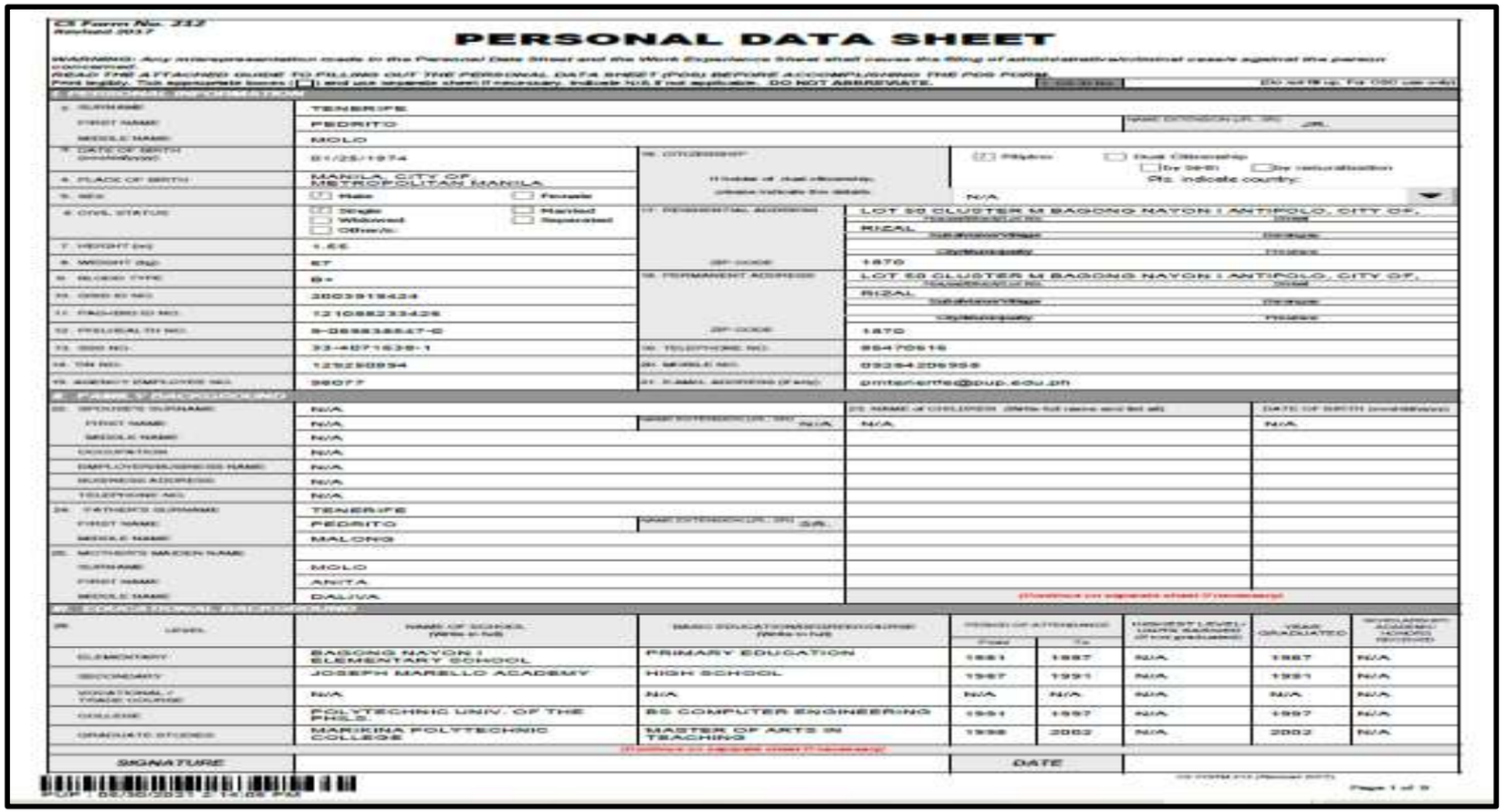
- Ronald is tasked to oversee the Information Technology training needs of the organization. His primary role is to provide guidance on current and future trainings that will contribute to the relevant skills of Smart personnel. His tasks include course development, course revisions and updates as well as delivery of said courses. He has recently developed internal training for Data Storytelling, Embracing the Digital Lifestyle, Information Technology Trends, Web development and Android App Development. He also oversees the IT training curriculum for the various IT related groups of Smart.

- Ronald is also part of Smart's initiative to partner with universities in the Philippines to make the IT curriculum of schools relevant to the IT industry under the Smart Wireless Engineering Education Program (SWEEP) program. His tasks include course development and implementation as well as training the teachers who are part of the program. Under SWEEP, he has developed Android bootcamp courses for deployment in the UP Open University as well as various school partners. He has also created a basic Cloud Computing course for school partners.

SMART COMMUNICATIONS, INC.
Information Technology Specialist
Technology Group
March 2007 to February 2017

1

EXCERPT FROM THE CV SUBMITTED BY A MEMBER OF CPE PROGRAM ADVISORY BOARD



CS Form No. 212
Revised 2017

PERSONAL DATA SHEET

WARNING: Any misrepresentation made in the Personal Data Sheet and the Work Experience Sheet shall cause the filing of administrative/criminal cases against the person concerned.
READ THE ATTACHED GUIDE TO FILLING OUT THE PERSONAL DATA SHEET (PDS) BEFORE ACCOMPLISHING THE PDS FORM.
Print legibly. Tick appropriate boxes ( ) and use separate sheet if necessary. Indicate N/A if not applicable. DO NOT ABBREVIATE.

Do not fill up. For CSC use only.

I. PERSONAL INFORMATION

1. SURNAME	TENERIFE
FIRST NAME	PEDRITO
MIDDLE NAME	MOLO
3. DATE OF BIRTH (mm/dd/yyyy)	01/25/1974
4. PLACE OF BIRTH	MANILA, CITY OF METROPOLITAN MANILA
5. SEX	☐ Male ☐ Female
6. CIVIL STATUS	☐ Single ☐ Married ☐ Widowed ☐ Separated ☐ Other/s:
7. HEIGHT (m)	1.66
8. WEIGHT (kg)	67
9. BLOOD TYPE	B+
10. GSIS ID NO.	3803918424
11. PAG-IBIG ID NO.	121088233426
12. PHILHEALTH NO.	8-088838647-0
13. SSS NO.	33-4071638-1
14. TIN NO.	125230894
15. AGENCY EMPLOYEE NO.	38077
16. CITIZENSHIP	☑ Filipino ☐ Dual Citizenship ☐ By birth ☐ By naturalization. Pls. indicate country: N/A
17. RESIDENTIAL ADDRESS	LOT 50 CLUSTER M BAGONG NAYON I ANTIPOLO, CITY OF, RIZAL
ZIP CODE	1870
18. PERMANENT ADDRESS	LOT 50 CLUSTER M BAGONG NAYON I ANTIPOLO, CITY OF, RIZAL
ZIP CODE	1870
19. TELEPHONE NO.	864 70516
20. MOBILE NO.	09394206958
21. E-MAIL ADDRESS (if any)	pmtenerife@pup.edu.ph

II. FAMILY BACKGROUND

22. SPOUSE'S SURNAME	N/A
FIRST NAME	N/A
MIDDLE NAME	N/A
OCCUPATION	N/A
EMPLOYER/BUSINESS NAME	N/A
BUSINESS ADDRESS	N/A
TELEPHONE NO.	N/A
23. FATHER'S SURNAME	TENERIFE
FIRST NAME	PEDRITO
MIDDLE NAME	MALONG
24. MOTHER'S MAIDEN NAME	
SURNAME	MOLO
FIRST NAME	ANITA
MIDDLE NAME	DALIVA

25. NAME OF CHILDREN (Write full name and list all) — DATE OF BIRTH (mm/dd/yyyy)
N/A — N/A

(Continue on separate sheet if necessary)

III. EDUCATIONAL BACKGROUND

26. LEVEL	NAME OF SCHOOL (Write in full)	BASIC EDUCATION/DEGREE/COURSE (Write in full)	PERIOD OF ATTENDANCE From	To	HIGHEST LEVEL/ UNITS EARNED (if not graduated)	YEAR GRADUATED	SCHOLARSHIP/ ACADEMIC HONORS RECEIVED
ELEMENTARY	BAGONG NAYON I ELEMENTARY SCHOOL	PRIMARY EDUCATION	1981	1987	N/A	1987	N/A
SECONDARY	JOSEPH MARELLO ACADEMY	HIGH SCHOOL	1987	1991	N/A	1991	N/A
VOCATIONAL / TRADE COURSE	N/A	N/A	N/A	N/A	N/A	N/A	N/A
COLLEGE	POLYTECHNIC UNIV. OF THE PHILS.	BS COMPUTER ENGINEERING	1991	1997	N/A	1997	N/A
GRADUATE STUDIES	MARIKINA POLYTECHNIC COLLEGE	MASTER OF ARTS IN TEACHING	1998	2002	N/A	2002	N/A

(Continue on separate sheet if necessary)

SIGNATURE | DATE

PUP | 08/30/2021 2:14:05 PM

Page 1 of 9

EXCERPT FROM THE CV SUBMITTED BY A MEMBER OF CPE PROGRAM ADVISORY BOARD

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CURRICULUM VITAE

YOLANDA D. AUSTRIA
yolanda.austria@adamson.edu.ph
(+63) 9175065743

EDUCATION

Doctor of Engineering – Computer Engineering (Dissertation)
Technological Institute of the Philippines – Quezon City
2018 - Present

Master of Engineering with Specialization in Computer Engineering
Pamantasan ng Lungsod ng Maynila
November 2013

Pre-Masteral Units in Education
Adamson University
March 2012

Bachelor of Science in Computer Engineering
Adamson University
March 2004

Secondary Education
Tondo High School
March 1999, Batch Salutatorian

ACADEMIC EXPERIENCE

Chairperson
Computer Engineering Department, Adamson University
September 2019 - Present

Assistant Professor 3, June 2019 – Present
Assistant Professor 1, June 2017 – May 2019
Instructor 2, June 2011 – May 2017
Computer Engineering Department, Adamson University

NON-ACADEMIC EXPERIENCE

Shell Shared Services Asia
Customer Service Professional
2008 - 2011

Advanced Contact Solutions Inc.
Technical Support Representative
2006 – 2008

MEMBERSHIP IN PROFESSIONAL ORGANIZATION

Lifetime Member, Institute of Computer Engineers of the Philippines (ICpEP)
2012 – Present

EXCERPT FROM THE CV SUBMITTED BY A MEMBER OF CPE PROGRAM ADVISORY BOARD

FRONT PAGE OF THE POWERPOINT SLIDE USED IN THE CPE PROGRAM ADVISORY BOARD

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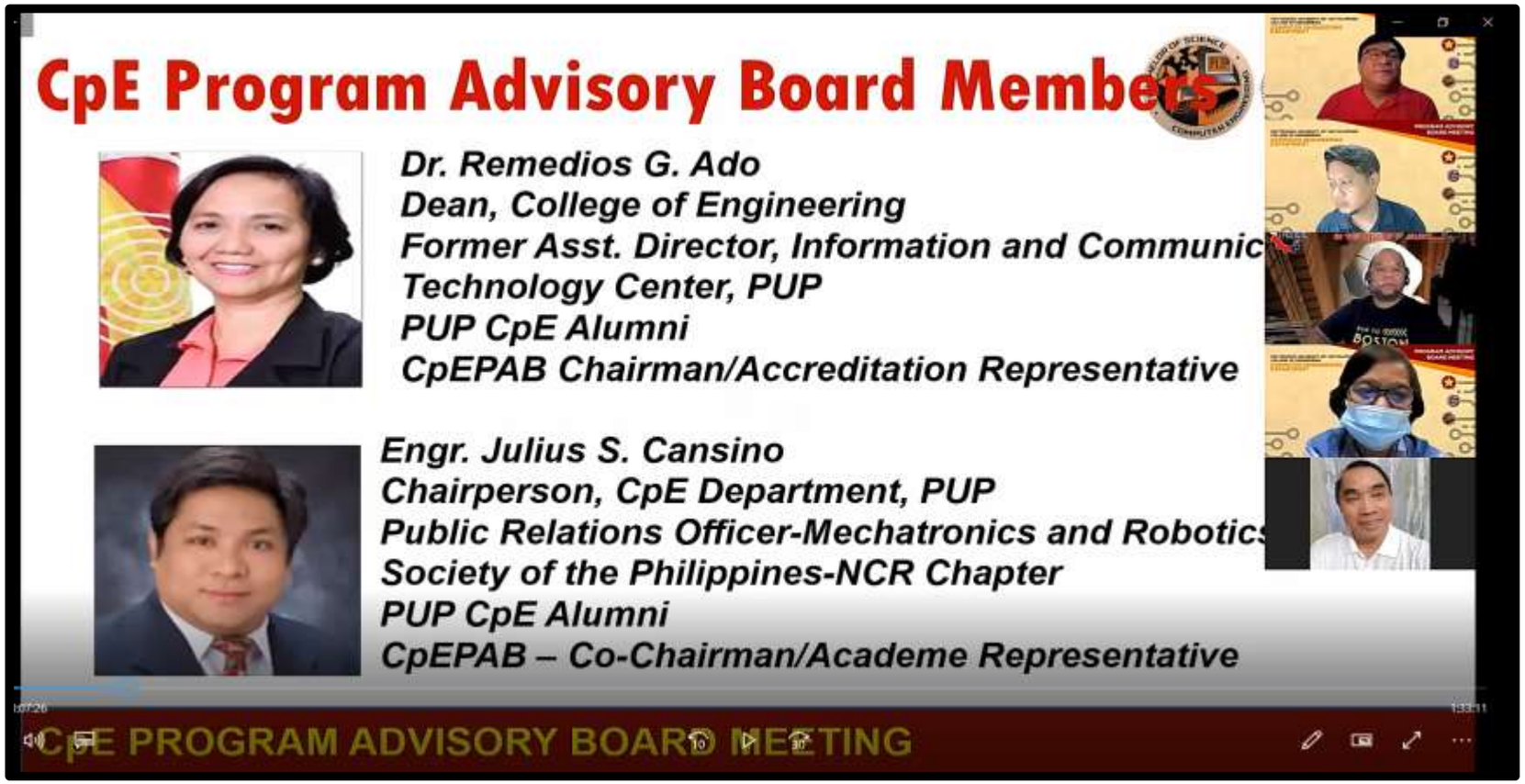
SCREEN SNAPSHOOT OF THE WELCOMING REMARKS MADE BY OUR COLLEGE DEAN



SCREEN SNAPSHOOT OF THE PROGRAM ADVISORY BOARD MEMBERS DURING THE MEETING

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SCREEN SNAPSHOOT OF THE PROGRAM ADVISORY BOARD MEMBERS DURING THE MEETING

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SCREEN SNAPSHOOT OF THE PROGRAM ADVISORY BOARD MEMBERS DURING THE MEETING

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SCREEN SNAPSHOOT OF THE PROGRAM ADVISORY BOARD MEMBERS DURING THE MEETING

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SCREEN SNAPSHOOT OF THE PARTICIPANTS AND PROGRAM ADVISORY BOARD DURING THE MEETING

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ANONAS COR. PUREZA STREETS, STA. MESA, MANILA

SCREEN SNAPSHOOT OF THE PARTICIPANTS AND PROGRAM ADVISORY BOARD DURING THE MEETING

POLYTECHNIC UNIVERSITY OF THE PHILIPPINES
COLLEGE OF ENGINEERING
COMPUTER ENGINEERING DEPARTMENT

Minutes of the Program Advisory Board Meeting

Subject: Program Advisory Board Meeting
Date: July 1, 2021 2:00 PM
Venue: Online Meeting via Zoom
Attendees:

- **Dr. Remedios Ado**
- **Dr. Neil Balba**
- **Dr. Ryan Evangelista**
- **Dr. Yolanda Austria**
- **Dr. Arvin Dela Cruz**
- **Engr. Julius Cansino**
- **Engr. Marvin Adsuara**
- **Engr. Pedrito Tenerife Jr.**
- **Prof. Ronald Ramos**
- **Faculty members of CpE Department**

The program started by the Doxology then followed by the Philippine National Anthem afterwards the PUP Hymn.

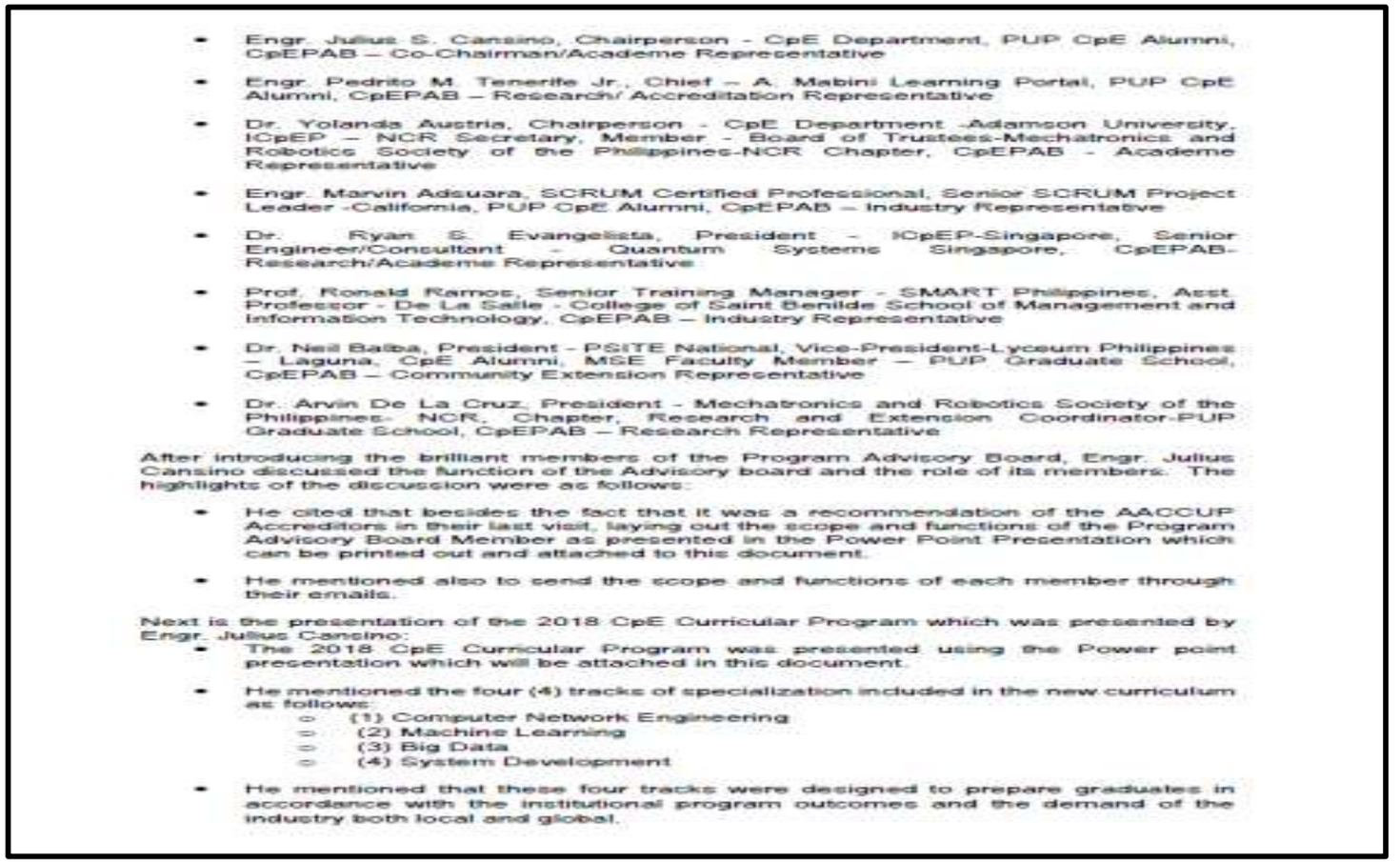
The welcome remarks were given by our Beloved Dean, Dr. Remedios G. Ado. Highlights of the welcome remarks were the following:

- Welcomed the Colleagues in PUP, the Program Advisory Board members, Faculty members, Alumni, and Industry partners a warm welcome to the Polytechnic University of the Philippines, College of Engineering - Computer Engineering Department.
- Dr. Ado mentioned that the group is part of our community. Community of learners, leaders and thinkers who are dedicated to addressing some world's complex challenges even more today that we are in the time of pandemic.
- She mentioned that one of the challenges during pandemic is the revision of curriculum and the Continuous Quality Improvement (CQI).
- She mentioned the college commitment to sustainable engineering is most visible in the Bachelor of Science in Computer Engineering Program.
- She mentioned that the body is the key to Resiliency.
- She invited the group to be part of the graduate school in Master of Science in Computer Engineering.
- Dr. Remedios ended her wonderful message with these words ("Ingat po tayong lahat and God Bless!").

Next in the program is the introduction of the Program Advisory Board Members. The highlights of the introduction were the following:

- Dr. Remedios G. Ado, Dean – College of Engineering, PUP CpE Alumni, CpEPAB Chairman/Accreditation Representative

SCREEN SNAPSHOT OF THE MINUTES OF THE MEETING OF CPE PROGRAM ADVISORY BOARD



- Engr. Julius S. Cansino, Chairperson - CpE Department, PUP CpE Alumni, CpEPAB – Co-Chairman/Academe Representative
- Engr. Pedrito M. Tenerife Jr., Chief – A. Mabini Learning Portal, PUP CpE Alumni, CpEPAB – Research/ Accreditation Representative
- Dr. Yolanda Austria, Chairperson - CpE Department -Adamson University, ICpEP – NCR Secretary, Member - Board of Trustees-Mechatronics and Robotics Society of the Philippines-NCR Chapter, CpEPAB - Academe Representative
- Engr. Marvin Adsuara, SCRUM Certified Professional, Senior SCRUM Project Leader -California, PUP CpE Alumni, CpEPAB – Industry Representative
- Dr. Ryan S. Evangelista, President - ICpEP-Singapore, Senior Engineer/Consultant - Quantum Systems Singapore, CpEPAB-Research/Academe Representative
- Prof. Ronald Ramos, Senior Training Manager - SMART Philippines, Asst. Professor - De La Salle - College of Saint Benilde School of Management and Information Technology, CpEPAB – Industry Representative
- Dr. Neil Balba, President - PSITE National, Vice-President-Lyceum Philippines – Laguna, CpE Alumni, MSE Faculty Member – PUP Graduate School, CpEPAB – Community Extension Representative
- Dr. Arvin De La Cruz, President - Mechatronics and Robotics Society of the Philippines- NCR Chapter, Research and Extension Coordinator-PUP Graduate School, CpEPAB – Research Representative

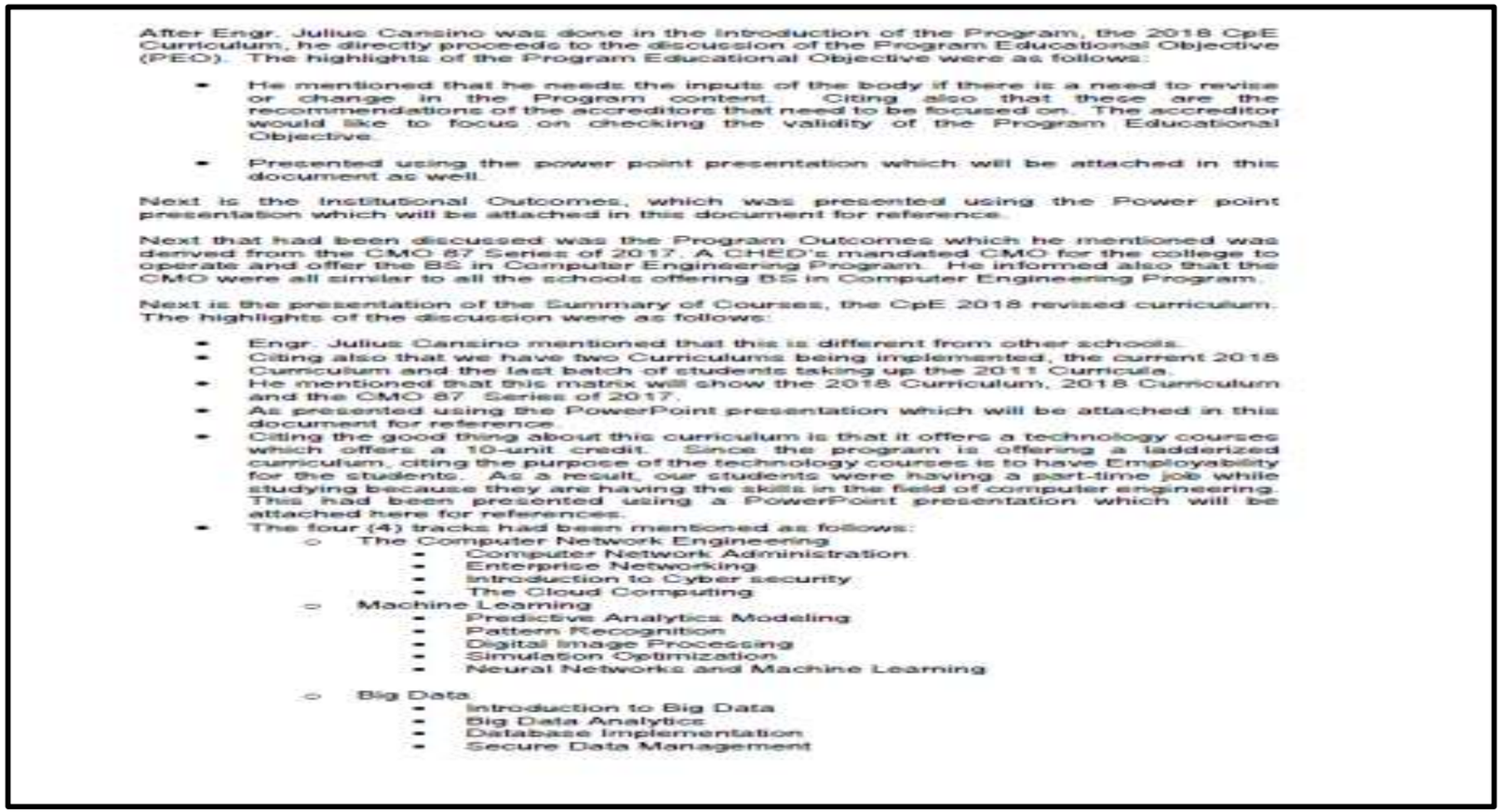
After introducing the brilliant members of the Program Advisory Board, Engr. Julius Cansino discussed the function of the Advisory board and the role of its members. The highlights of the discussion were as follows:

- He cited that besides the fact that it was a recommendation of the AACCUP Accreditors in their last visit, laying out the scope and functions of the Program Advisory Board Member as presented in the Power Point Presentation which can be printed out and attached to this document.
- He mentioned also to send the scope and functions of each member through their emails.

Next is the presentation of the 2018 CpE Curricular Program which was presented by Engr. Julius Cansino:

- The 2018 CpE Curricular Program was presented using the Power point presentation which will be attached in this document.
- He mentioned the four (4) tracks of specialization included in the new curriculum as follows:
  - (1) Computer Network Engineering
  - (2) Machine Learning
  - (3) Big Data
  - (4) System Development
- He mentioned that these four tracks were designed to prepare graduates in accordance with the institutional program outcomes and the demand of the industry both local and global.

SCREEN SNAPSHOT OF THE MINUTES OF THE MEETING OF CPE PROGRAM ADVISORY BOARD



After Engr. Julius Cansino was done in the introduction of the Program, the 2018 CpE Curriculum, he directly proceeds to the discussion of the Program Educational Objective (PEO). The highlights of the Program Educational Objective were as follows:

- He mentioned that he needs the inputs of the body if there is a need to revise or change in the Program content. Citing also that these are the recommendations of the accreditors that need to be focused on. The accreditor would like to focus on checking the validity of the Program Educational Objective.
- Presented using the power point presentation which will be attached in this document as well.

Next is the Institutional Outcomes, which was presented using the Power point presentation which will be attached in this document for reference.

Next that had been discussed was the Program Outcomes which he mentioned was derived from the CMO 87 Series of 2017. A CHED's mandated CMO for the college to operate and offer the BS in Computer Engineering Program. He informed also that the CMO were all similar to all the schools offering BS in Computer Engineering Program.

Next is the presentation of the Summary of Courses, the CpE 2018 revised curriculum. The highlights of the discussion were as follows:

- Engr. Julius Cansino mentioned that this is different from other schools.
- Citing also that we have two Curriculums being implemented, the current 2018 Curriculum and the last batch of students taking up the 2011 Curricula.
- He mentioned that this matrix will show the 2018 Curriculum, 2018 Curriculum and the CMO 87 Series of 2017.
- As presented using the PowerPoint presentation which will be attached in this document for reference.
- Citing the good thing about this curriculum is that it offers a technology courses which offers a 10-unit credit. Since the program is offering a ladderized curriculum, citing the purpose of the technology courses is to have Employability for the students. As a result, our students were having a part-time job while studying because they are having the skills in the field of computer engineering. This had been presented using a PowerPoint presentation which will be attached here for references.
- The four (4) tracks had been mentioned as follows:
  - The Computer Network Engineering
    - Computer Network Administration
    - Enterprice Networking
    - Introduction to Cyber security
    - The Cloud Computing
  - Machine Learning
    - Predictive Analytics Modeling
    - Pattern Recognition
    - Digital Image Processing
    - Simulation Optimization
    - Neural Networks and Machine Learning
  - Big Data
    - Introduction to Big Data
    - Big Data Analytics
    - Database Implementation
    - Secure Data Management

SCREEN SNAPSHOT OF THE MINUTES OF THE MEETING OF CPE PROGRAM ADVISORY BOARD

- Systems Development
  - Enterprise Software System
  - Web and Mobile System
  - Software Process and Product Quality
  - Trends in Software Development Processes

- As Mentioned by Engr. Cansino, these are the four tracks field of specialization to be given to a student depending on the result of the evaluation exam. Next is the Program of Study per Term which highlights on the five (5) Technology courses with two (2) units each. Majority of the hours of these classes will be consumed in Laboratory activity. This had been presented in the PowerPoint presentation to be attached here for references.

- Next is the discussion of the CpE Technology Subjects which was listed as follows:
  - (NC II) Computer System Servicing
  - (NC III/IV) Consumer Electronics
  - (NC III) 2D/3D Game Development
  - (NC III) Animation

- As discussed, the students can take certification exam from TESDA with these Technology Courses. In fact, Engr. Julius Cansino encouraged the students to take up the Microsoft Technical Associates (MTA) for their own benefit. This had been presented with visual aide who must be attached to this document for reference.

- Next is the open forum with comments, suggestions, and recommendations of the Program Advisory Board members.

- Dr. Neil started the open forum with the following:
  - He agreed on the Curriculum presented with integration of Certification. He also would like to insert the Principles of Project Management in the thesis, design project or in the software development.
  - Engr. Julius Cansino replied that Project Management has been embedded in the Software Design Course.

- As Dr. Neil emphasized also that Project Management is required by the industry and even abroad, they are using the Agile Method in their Project Management. In fact, Dr. Neil mentioned that he visited different companies and countries where he witnessed the step-by-step in doing the actual Project. He witnessed how they do the Scrum until they finished the software development. He also insists the Integration of Cloud which he noted as important today if we can embed this in the Curriculum. And he agreed on the integration of Security and Data Privacy in the Curriculum. He also wanted the Principles of Cloud computing be integrated in the Curriculum, as these are the things being required in the industry nowadays. He is also happy in the presence of the Technopreneurship in our curriculum. He pointed also that the Artificial Intelligence and Data Automation to be integrated in the different Syllabi due to the industry required knowledge in the employment.

- Engr. Marvin Adsuara agreed to what Dr. Neil had mentioned. He noted the Computer Network Engineering to have the Cloud Computing to be emphasized in the Curriculum that he saw one bullet point saying that Cloud Computing is really big topic such as GCP and AWS. He agreed also in the Project Management in the Curriculum. Project Management is his expertise as he is the Director of a Project Management in an IT company in Los Angeles.

SCREEN SNAPSHOT OF THE MINUTES OF THE MEETING OF CPE PROGRAM ADVISORY BOARD

California. He pointed on the Traditional Waterfall in the Project Management. Right now, company is using the Agile, wherein he conducted a seminar for faculty members and Students. He noted if we can offer both then our graduates will become attractive.

- Prof. Ronald Ramos agreed to Dr. Neil and Engr. Marvin's suggestions. He also added that since the Program is Computer Engineering, it must also look into the Dev-Ops, which is the Convergence of Developers plus systems Administrators. That Prof. Ramos has this process in his software. It deals with strong angle in terms of the Administration side which connects to Computer Engineer's tasks. Apparently, he also has two (2) projects using AWS Cloud where he worked with Developers and Computer Engineers who are not familiar with setting up the backend side of it. There were so many developers, that when he was a student, they must be at least being familiar to all the programming language even not being expert to it, he added. He also recommends factoring Dev-Ops along in the Curriculum so our graduates will be familiar in setting up Cloud Computing. Engr. Marvin agreed with Prof. Ronald that Dev-Ops in the Industry are also known as Dev-Sec-Ops which mean Development, Security and Operations. Engr. Marvin also added that this Physical Data Storage and its equivalent to Cloud must be taught also to our graduates. His concern is how our faculty members are equipped with this advanced technology. Smart Company according to Prof. Ramos is looking into cheaper solutions in simulated Lab Cloud learning. This way, they setup their own learning environment otherwise they will rent the actual facility to someone who has it which is the painful part in this matter.
- Dr. Neil also added that since we can't go away with Software Development because we are Computer Engineers, according to his students before in Computer Engineering who are now in the different companies in the US. Apparently, the program has to focus on Program Logic Formulation (PLF), the foundation of any programming language. When a student has a strong Program Logic Formulation, all they have to do is to know the syntax of the programming language they are using.
- Dr. Ryan Evangelista also shares his ideas and he agreed to all the comments and suggestions of the Board Members. He also commending PUP to be fortunate to have Dr. Neil Balba in the Program Advisory Board. He point out the different tasks between Computer Engineers, Computer Science and Information Technologist. Computer Engineers do the design, Computer Science does the software algorithmic scientifically and the Information technologists to be in the technical aspect like maintenance and assembly without any designs. He noticed also that there is missing in the curriculum, which is known as the Enterprise Architecture, Solutions Architecture. He also mentioned as an Engineer, we design a complex system from end-to-end. He also cited an instance that when you have a client that will give you a requirement. The engineer must provide a solution to it, to design Architecture such as the security in the frontend, what are your servers, is it on the Cloud, Hybrid or on-premises. He pointed out as a Solution Architect the Computer Engineers must know these matters. Dr. Neil agreed to what Dr. Ryan has mentioned, he even added that these are all included in Project Management. Dr. Ryan continued that in the Software Development there are two teams, the Technical Team and the Project Management Team. He also noticed the missing portion in the Artificial Intelligence, he pointed out that he was not able to visualize the specific application in the other science and engineering field. Prof. Ronald agreed to Dr. Ryan, adding that in the industry they are using Python to automate not only Big Data Analysis but also for some of the backend system so as it will do the process automatically. Dr. Ryan would like to share also that he attended the Global Space and Technology Convention, the study

SCREEN SNAPSHOT OF THE MINUTES OF THE MEETING OF CPE PROGRAM ADVISORY BOARD

is more on the space system. He mentioned that even Cyber Security is included in the Space Development; emphasizing Computer Engineers must be one the Front Tiers of these projects. He point out that these projects need hardware or combinational Hardware to address the issue in Space. It is better we produce Computer Engineers to be in these projects in Space since we already have the Philippine Space Agency, he added. He also noticed that the Hardware part is lacking in the Curriculum he mentioned. In what he saw, in the Traditional Computer Engineering it is a combination of Electrical Engineering and Computer Science. He didn't see in the curriculum having the non-technology, he didn't see any Chip Design and he didn't see any fabrications. He added that anything inside the Computer should be the domain of Computer Engineers. Dr. Neil agreed to these ideas mentioned by Dr. Ryan. He also gives solution to it asking Engr. Julius to add these ideas of Dr. Ryan in the Curriculum. He also notes that we have the freedom to alter the curriculum as long as it is aligned to what is for the Computer Engineering in the Industry and the CHED's recommendations. Prof. Ronald agreed to both Dr. Neil and Dr. Ryan, mentioning also that he wanted to add Python since we already have Data Science. Python is easy to teach and it is the introductory programming language taught in the US. Engr. Julius agreed and pointed out that we already have Python Language in our Programming Logic and Design. Dr. Ryan request to have the Application of Python in Data Science for Data Analytics. Engr. Jonathan agreed to them and added that he introduced Anaconda with Python in his Big Data subject.

- Dr. Arvin added that in the Technical Electives such as Software Development, Machine Learning and Big Data are related to Internet-of Things (IoT) so as providing students to innovate themselves on a specific language specifically Python Programming Language. Dr. Arvin also shared that Accenture acquired a new department under their corporation that is the Data Science and Engineering. The reason why he requested Dr. Remedios to have a specialization in MSCpE Major in Data Science in MSIT because of the possible employment in this field, he added. Dr. Arvin also mentioned that the body will follow the suggestions which are the inclusion of the Artificial Intelligence in the Curriculum. He added that this Artificial Intelligence is already embedded in the Software Development, Machine Learning and Big Data. In the System Architecture, the Embedded System is connected to Hardware Descriptive Language (HDL) it already started programming and simulation of Hardware over software. When the students reached the Embedded Systems there goes the Architectural Design needed for our Computer Engineering students. Dr. Arvin also mentioned that when the Program Advisory Board were done in doing the Curriculum he invited the members to check it more for some missing topics for the betterment of the curriculum and the Course Specialization.

- Engr. Marvin agreed to all the ideas mentioned and he added that it is better to come up with the right Title of the subject. This can be used in applying for a job when the employer is viewing the Transcript of Records of the applicant, the Subject Title will tell that the applicant is having the knowledge of what the employment requires by reading the title of the subjects offered. Dr. Neil agreed but he added that CHED is requiring us not to alter the title but it is allowed to put it inside the parenthesis.

- Dr. Neil is asking the body of what tools they are using during this time of Pandemic, "Have we met our SO's even though we are online?" He cited an example like in one subject, what tools were used such as the software, methodology and the embedded system these are scrutinized one by one. Dr. Ryan agreed and added an example in the Enterprise Architecture. He cited that the school can create a corporate account in the AWS Cloud Free Tier.

SCREEN SNAPSHOT OF THE MINUTES OF THE MEETING OF CPE PROGRAM ADVISORY BOARD

During the free tier, the faculty member can use it to simulate how to design Architecture and how to provision a server. These are the free tools that we can use and Dr. Neil added that he will give list of free software that can be downloaded and used as a tools.

- Dr. Ryan now give his idea how to equip the faculty member with the tool and mentioning"Does the faculty member has experience?" Or do we need an industry expertise to blend in to the faculty member. He insists that some topic requires experience. He also cited one of the programs of Philippine Society of Engineering Educators (PSEE); the program is supposedly Virtual Internship for the Student. Then he mentioned that he will change the program to Virtual Internship for the Faculty to empower the Faculty to teach Internship that can be used by the students later on. The content of the program will be like AWS Cloud, how to provision a server and some basic stuff so the faculty can be acquainted.
- Dr. Neil also injected the improvement of the communication skills of the students. He requested to ask help in English department that they will teach English subject which are involved in our program. Dr. Ryan agreed to this idea.
- Engr. Marvin also added that Philippine school is geared to producing employees. He cited that in the US they are not teaching only the concept but also teaching the students how to be entrepreneurs.
- Dr. Neil also added the topic in the Extension program that is to involve the school in the Vaccination program where the students will check the computers or the computer networks so as to have more extension program. He also added the PSITE free membership for faculty members and students with free training on famous vendors and certificates as part of the extension programs. Engr. Julius agreed and promised to have a talk regarding these extension programs being mentioned.
- Dr. Ryan added the idea "Are we creating workers or leaders of the industry?" as Engr. Marvin asked a while ago. Dr. Ryan wants to address some programs on leadership. He cited that this is the problems of our students specially when there are people around. Dr. Neil agreed and added that we can have an extension program with the students including those who graduated already to have a workshop with the faculty members to address this issue. Prof. Ronald agreed and shared his experience in lack of communication skill of the students. Engr. Norman commended the members of the Program Advisory Board for their insights given in this meeting.
- Dr. Ryan also added he want to see the direction of the Thesis. Engr. Julius introduced Engr. Pedrito Tenerife to discuss the research trusts and the Department's plan for the Thesis or the Design Project of the students. Dr. Arvin took the place of Engr. Pedrito as he is in the other meeting. Dr. Arvin noted that PUP is focused on Society 5.0 which started in Singapore with 17 tracks. Here in Computer Engineering when we try to invent we don't just invent for the process and manufacturing industry, there must be a human factor and a need for innovation. Those are the trusts of the PUP as of the moment; the body has revised a little we removed and added few because of the word "Resiliency" wherein before it is focused only in sustainability but since this time of pandemic it has entered Resiliency in the organization. Dr. Neil agreed and added we will be focused on Business Continuity. Dr. Ryan asked about the Smart Development in PUP. Dr. Arvin replied that we have the Smart Project Development, the Smart Green Project and it is ongoing in the Design Projects in all branches that we have with CpE Program. We have these three branches in PUP Binan, PUP Paranaque, PUP Sta. Maria Bulacan and the Main campus.

SCREEN SNAPSHOT OF THE MINUTES OF THE MEETING OF CPE PROGRAM ADVISORY BOARD

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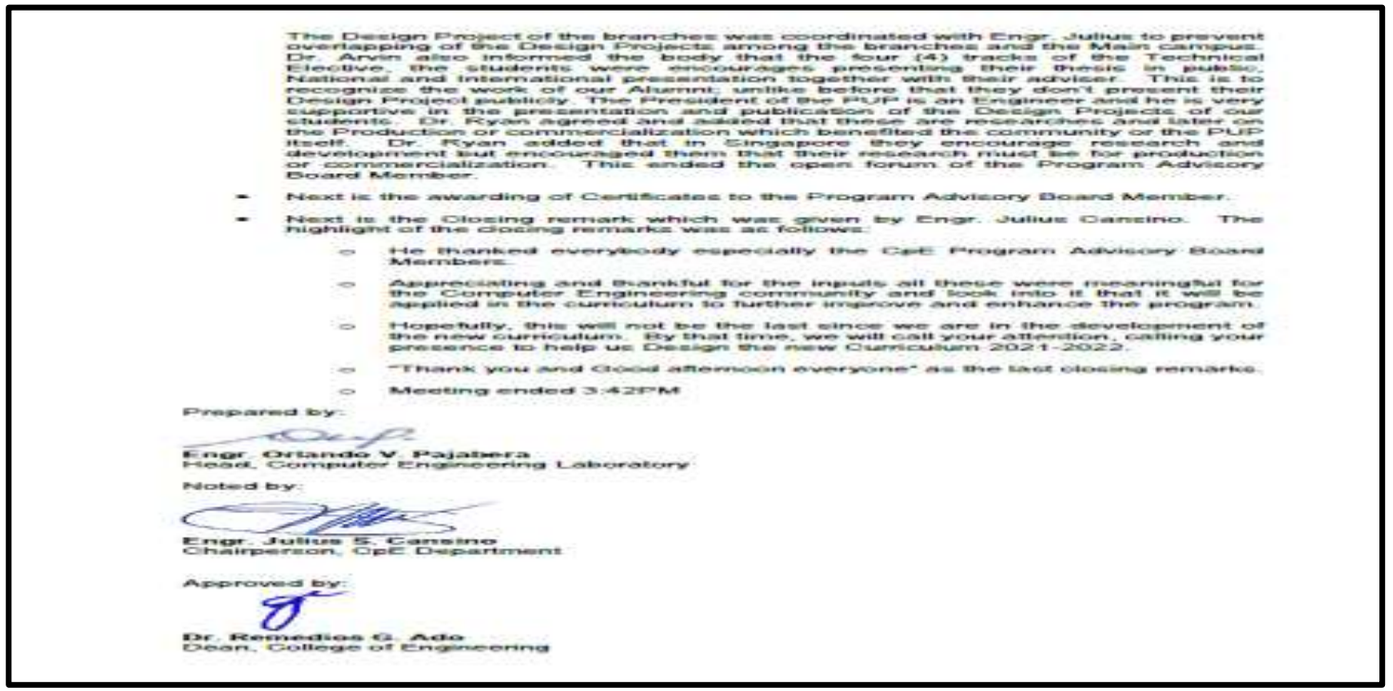


The Design Project of the branches was coordinated with Engr. Julius to prevent overlapping of the Design Projects among the branches and the Main campuses. Dr. Arvin also informed the body that the four (4) tracks of the Technical Elective, the students were encourages presenting their thesis in public, National and International presentation together with their adviser. This is to recognize the work of our Alumni, unlike before that they don't present their Design Project publicly. The President of the PUP is an Engineer and he is very supportive in the presentation and publication of the Design Projects of our students. Dr. Ryan agreed and added that these are researches and labor on the Production or commercialization which benefited the community or the PUP itself. Dr. Ryan added that in Singapore they encourage research and development but encouraged them that their research must be for production or commercialization. This ended the open forum of the Program Advisory Board Member.

- Next is the awarding of Certificates to the Program Advisory Board Member.
- Next is the Closing remark which was given by Engr. Julius Cansino. The highlight of the closing remarks was as follows:
  - He thanked everybody especially the CpE Program Advisory Board Members.
  - Appreciating and thankful for the inputs all these were meaningful for the Computer Engineering community and look into it that it will be applied in the curriculum to further improve and enhance the program.
  - Hopefully, this will not be the last since we are in the development of the new curriculum. By that time, we will call your attention, calling your presence to help us Design the new Curriculum 2021-2022.
  - "Thank you and Good afternoon everyone" as the last closing remarks.
  - Meeting ended 3:42PM

Prepared by:

Engr. Orlando V. Pajatera
Head, Computer Engineering Laboratory

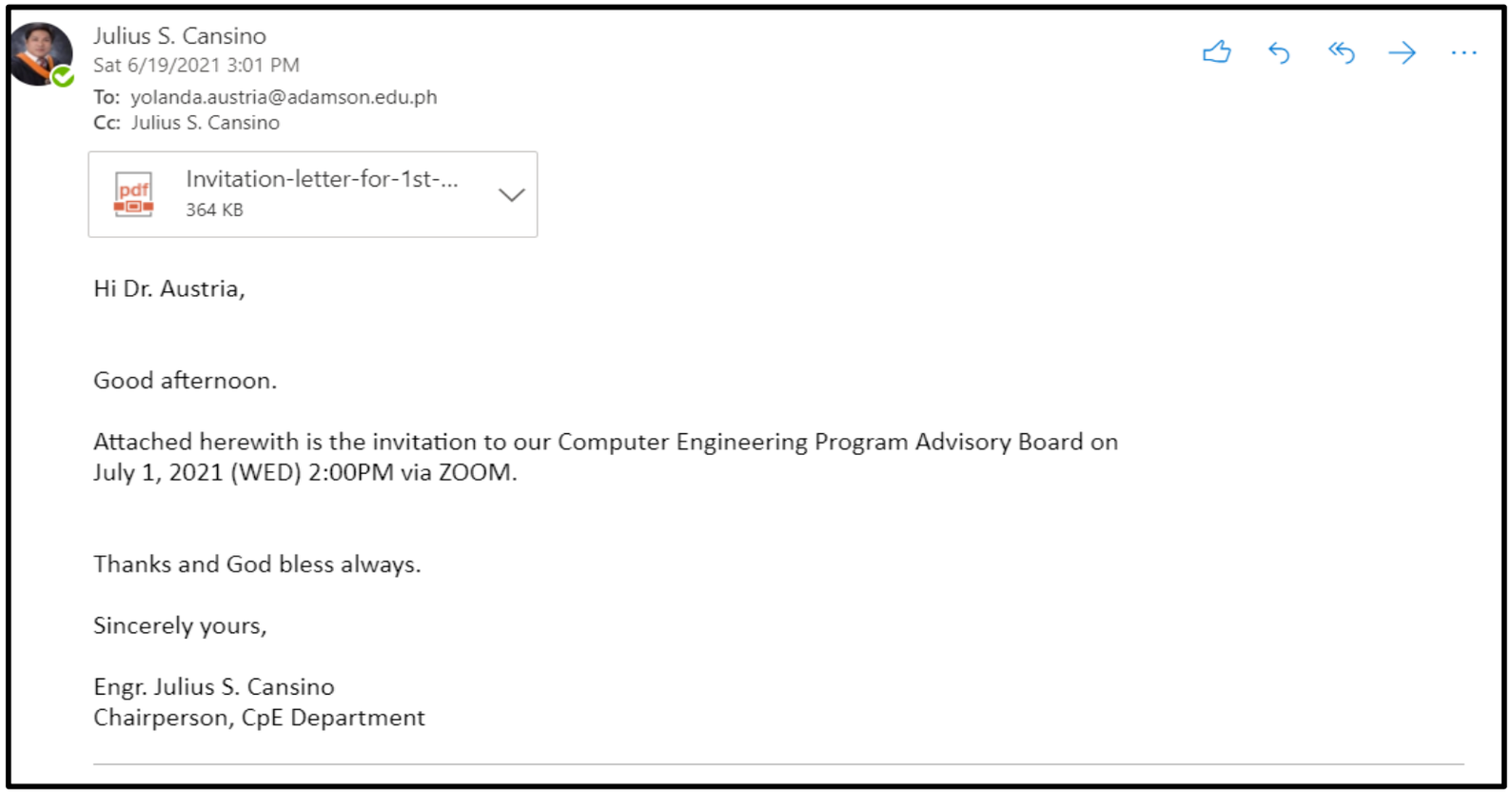
Noted by:

Engr. Julius S. Cansino
Chairperson, CpE Department

Approved by:

Dr. Remedios G. Ado
Dean, College of Engineering

SCREEN SNAPSHOT OF THE MINUTES OF THE MEETING OF CPE PROGRAM ADVISORY BOARD



Julius S. Cansino
Sat 6/19/2021 3:01 PM
To: yolanda.austria@adamson.edu.ph
Cc: Julius S. Cansino

pdf Invitation-letter-for-1st-...
364 KB

Hi Dr. Austria,

Good afternoon.

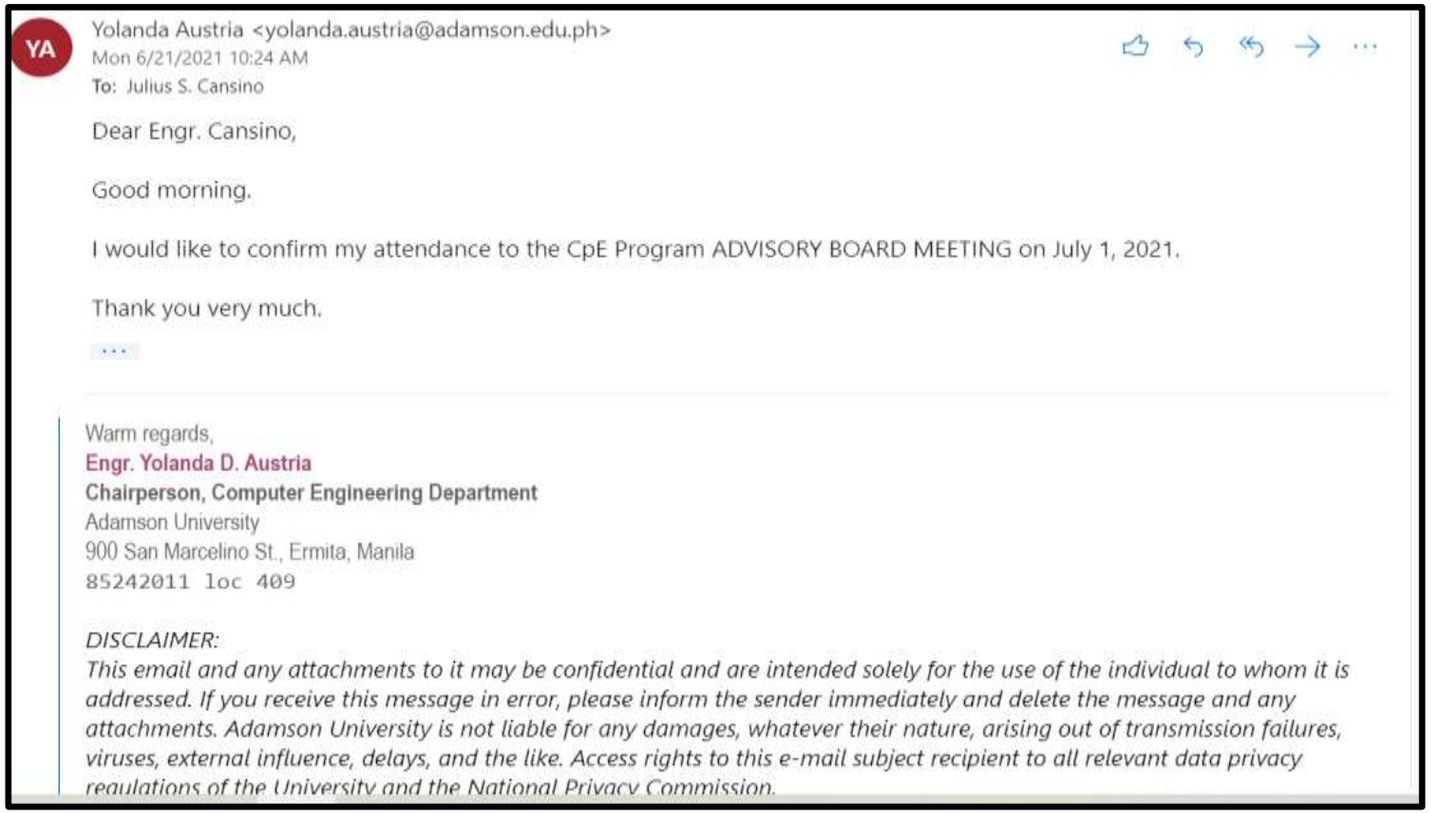
Attached herewith is the invitation to our Computer Engineering Program Advisory Board on July 1, 2021 (WED) 2:00PM via ZOOM.

Thanks and God bless always.

Sincerely yours,

Engr. Julius S. Cansino
Chairperson, CpE Department

SCREEN SNAPSHOT OF EMAIL INVITING A MEMBER ON CPE PROGRAM ADVISORY BOARD MEETING



YA

Yolanda Austria <yolanda.austria@adamson.edu.ph>
Mon 6/21/2021 10:24 AM
To: Julius S. Cansino

Dear Engr. Cansino,

Good morning.

I would like to confirm my attendance to the CpE Program ADVISORY BOARD MEETING on July 1, 2021.

Thank you very much.

...

Warm regards,
Engr. Yolanda D. Austria
Chairperson, Computer Engineering Department
Adamson University
900 San Marcelino St., Ermita, Manila
85242011 loc 409

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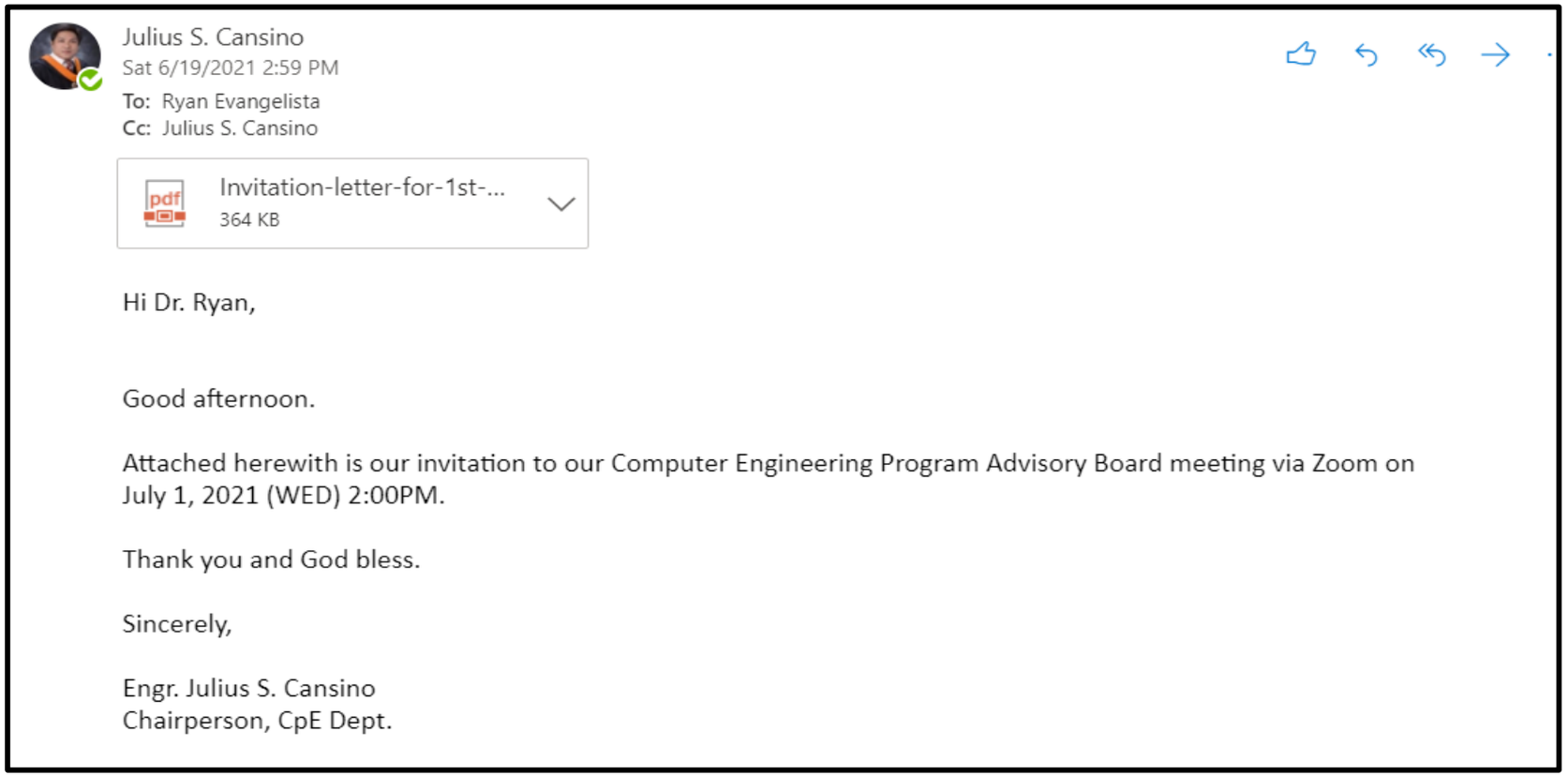
SCREEN SNAPSHOT OF EMAIL CONFIRMING ATTENDANCE OF A MEMBER ON CPE PROGRAM ADVISORY BOARD MEETING



Julius S. Cansino
Sat 6/19/2021 2:59 PM
To: Ryan Evangelista
Cc: Julius S. Cansino

Invitation-letter-for-1st-...
364 KB

Hi Dr. Ryan,

Good afternoon.

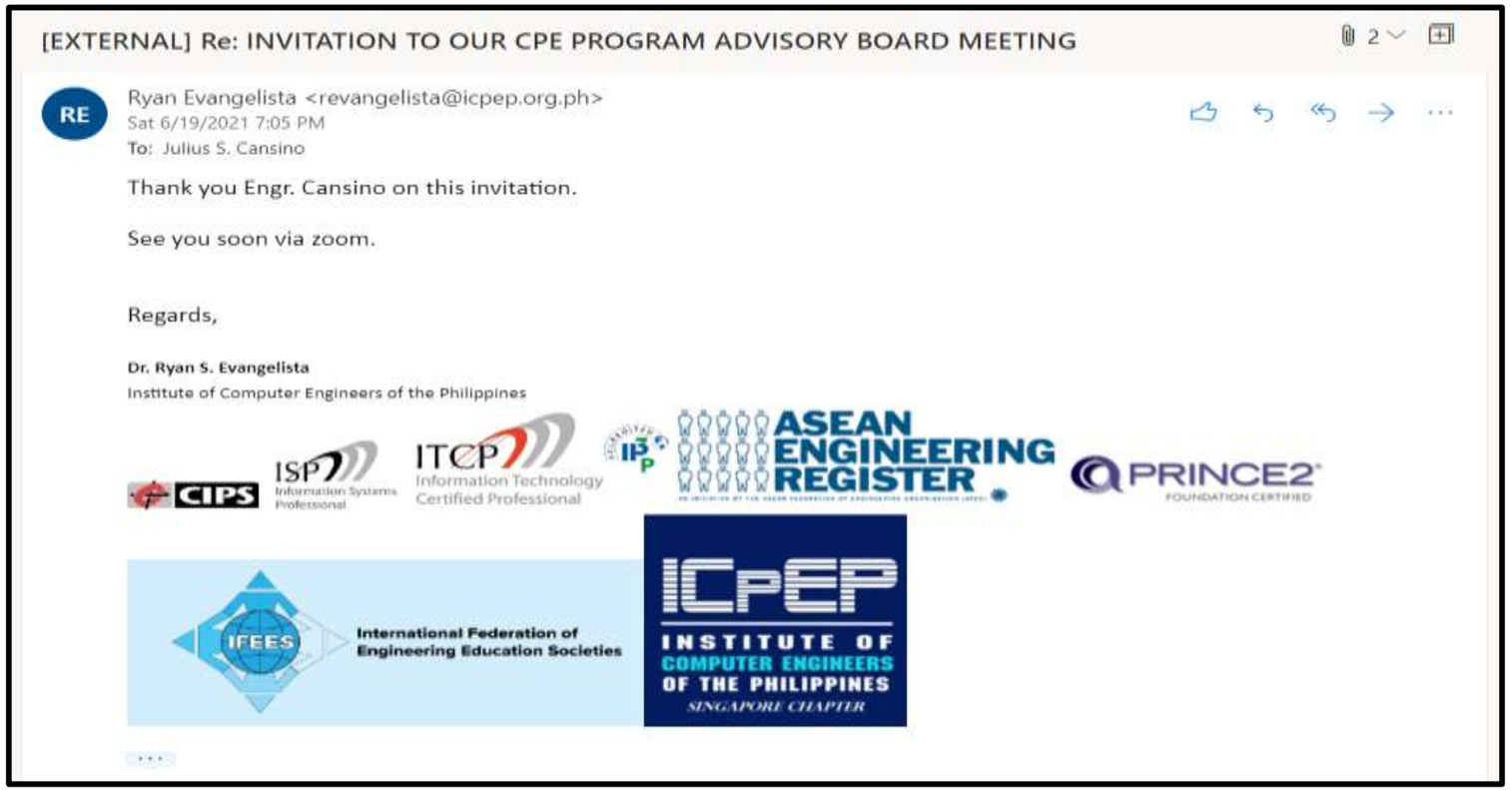
Attached herewith is our invitation to our Computer Engineering Program Advisory Board meeting via Zoom on July 1, 2021 (WED) 2:00PM.

Thank you and God bless.

Sincerely,

Engr. Julius S. Cansino
Chairperson, CpE Dept.

SCREEN SNAPSHOT OF EMAIL INVITING A MEMBER ON CPE PROGRAM ADVISORY BOARD MEETING



[EXTERNAL] Re: INVITATION TO OUR CPE PROGRAM ADVISORY BOARD MEETING

2

RE

Ryan Evangelista <revangelista@icpep.org.ph>
Sat 6/19/2021 7:05 PM
To: Julius S. Cansino

Thank you Engr. Cansino on this invitation.

See you soon via zoom.

Regards,

Dr. Ryan S. Evangelista
Institute of Computer Engineers of the Philippines

CIPS ISP Information Systems Professional ITCP Information Technology Certified Professional IIBP ASEAN ENGINEERING REGISTER PRINCE2 FOUNDATION CERTIFIED

IFEES International Federation of Engineering Education Societies

ICpEP INSTITUTE OF COMPUTER ENGINEERS OF THE PHILIPPINES SINGAPORE CHAPTER

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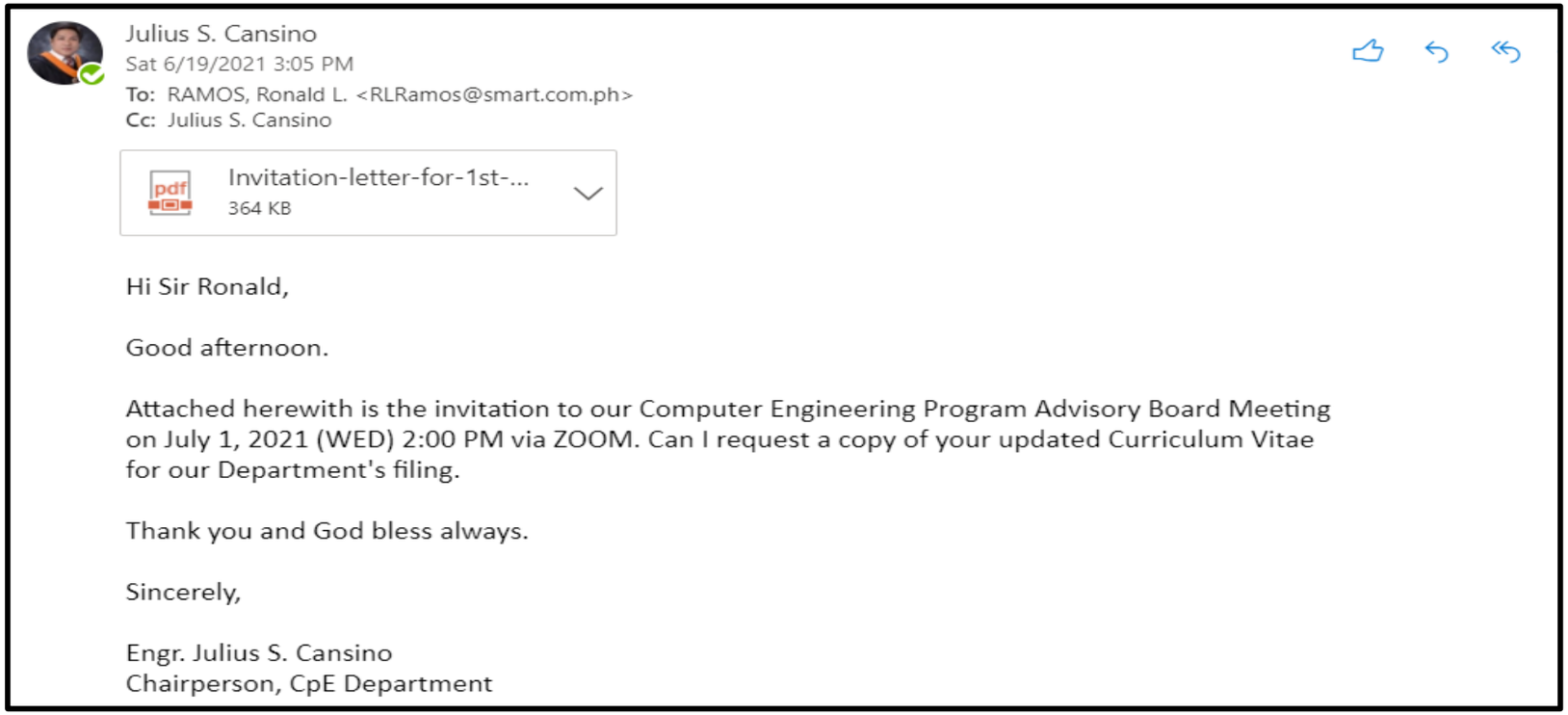


Julius S. Cansino
Sat 6/19/2021 3:05 PM
To: RAMOS, Ronald L. <RLRamos@smart.com.ph>
Cc: Julius S. Cansino

Invitation-letter-for-1st-...
364 KB

Hi Sir Ronald,

Good afternoon.

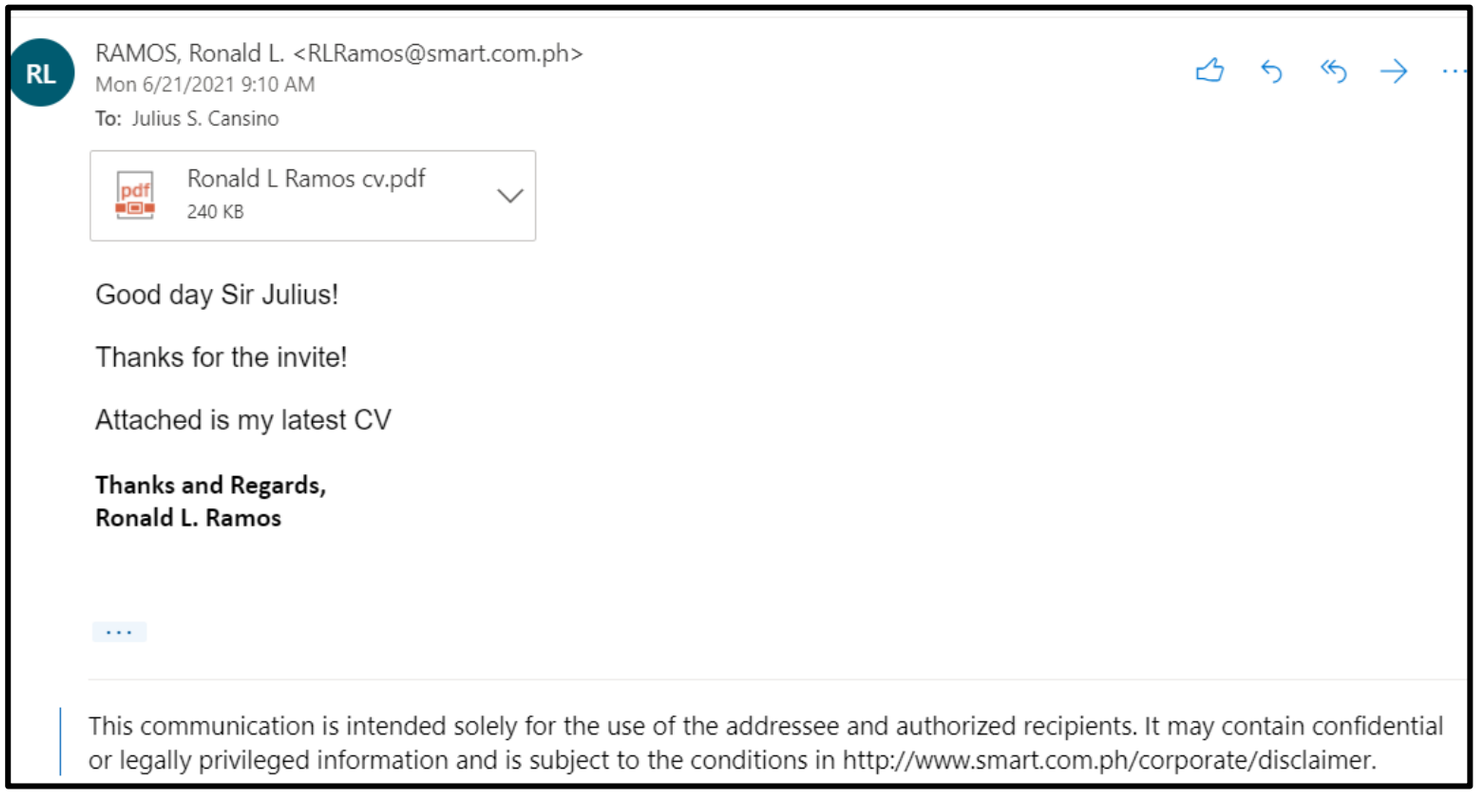
Attached herewith is the invitation to our Computer Engineering Program Advisory Board Meeting on July 1, 2021 (WED) 2:00 PM via ZOOM. Can I request a copy of your updated Curriculum Vitae for our Department's filing.

Thank you and God bless always.

Sincerely,

Engr. Julius S. Cansino
Chairperson, CpE Department

SCREEN SNAPSHOT OF EMAIL INVITING A MEMBER ON CPE PROGRAM ADVISORY BOARD MEETING



RL

RAMOS, Ronald L. <RLRamos@smart.com.ph>
Mon 6/21/2021 9:10 AM
To: Julius S. Cansino

Ronald L Ramos cv.pdf
240 KB

Good day Sir Julius!

Thanks for the invite!

Attached is my latest CV

Thanks and Regards,
Ronald L. Ramos

...

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POLYTECHNIC UNIVERSITY OF THE PHILIPPINES
COLLEGE OF ENGINEERING
COMPUTER ENGINEERING DEPARTMENT

June 19, 2021

Mr. Ronald Ramos
Senior Training Officer
Smart Communications
Makati City

Dear Mr. Ramos,

Greetings!

As part of our commitment to continual improvement and preparation of our students to the industry practice, we would like to invite you on our **1st CPE PROGRAM ADVISORY BOARD** meeting on **the July 1, 2021**, at **2:00 pm** via **Zoom.**

Meeting ID: 825 3020 4512
Passcode: 083046

Program Advisory Boards are created to serve as "idea engines" whose key role is to provide ideas regarding the general competitive environment affecting Computer Engineering education. Your inputs will be highly valuable and considered in our preparation for the revision of the curriculum. An immediate task is the realignment of the syllabi for Online Instructions.

With much appreciation, we look forward to your positive response.

Respectfully yours,

Engr. Julius S. Cansino
Chairperson, CpE Department

SCREEN SNAPSHOT OF THE INVITATION LETTER ON CPE PROGRAM ADVISORY BOARD MEETING

CPEMUSTAHAN AND COENTUHAN VERSION 3.0 BANNER/POSTER

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SCREEN SNAPSHOT OF THE ATTENDEES/PARTICIPANTS IN CPE VIRTUAL ALUMNI HOMECOMING

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SCREEN SNAPSHOT OF THE ATTENDEES/PARTICIPANTS IN CPE VIRTUAL ALUMNI HOMECOMING

RECOMMENDATION #2

The institution may conduct regular training-workshop in writing an OBE-compliant syllabus.

EVIDENCE OF COMPLIANCE

- **VPAA memo on the preparation of the OBE-Compliant Syllabi**
- **VPAA memo on the submission and orientation on the preparation of the OBE-Compliant Syllabi**
- **Photo of the OBE-Compliant Syllabi Preparation Seminar-Workshop conducted by the OVPAA**

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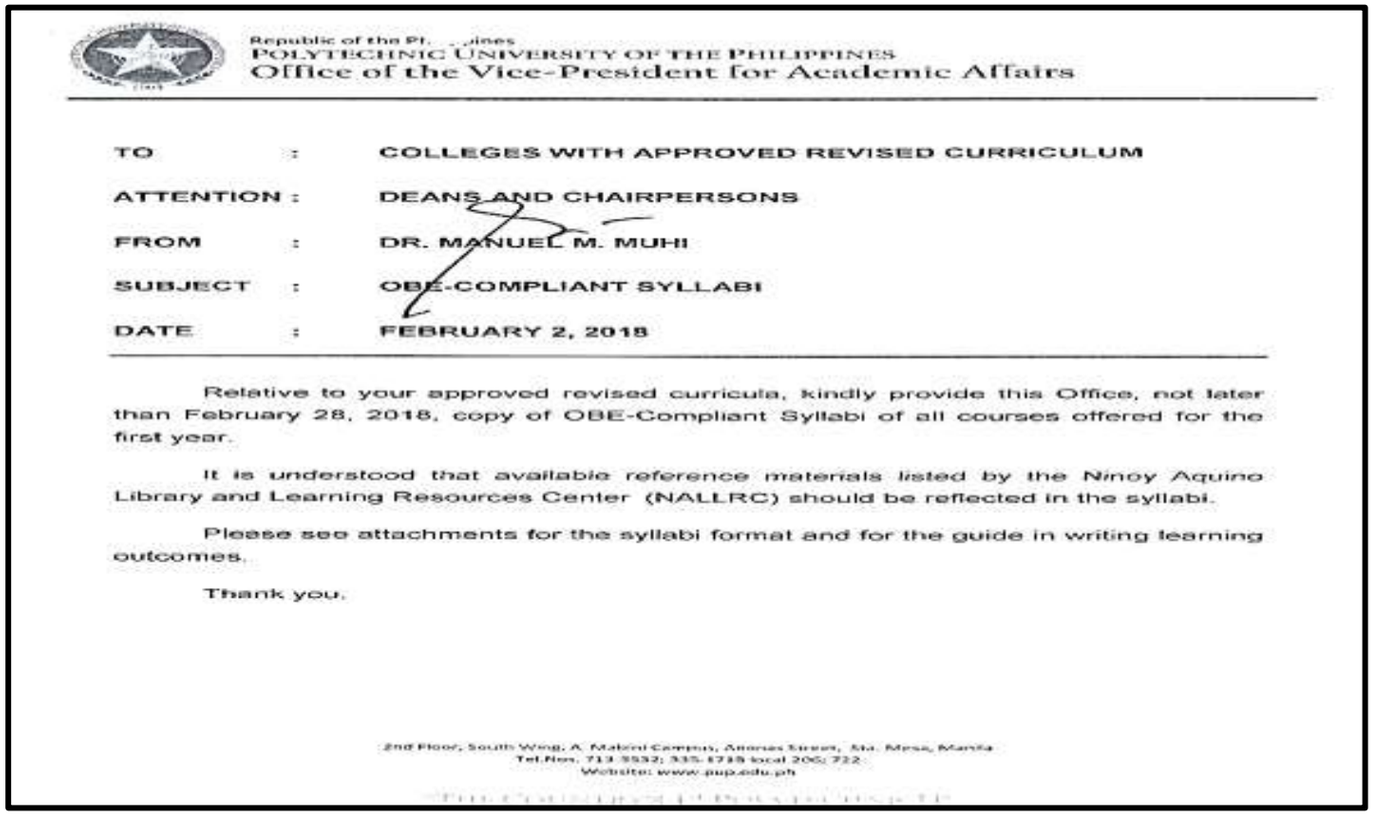


Republic of the Ph[illegible]ines
POLYTECHNIC UNIVERSITY OF THE PHILIPPINES
Office of the Vice-President for Academic Affairs

TO : COLLEGES WITH APPROVED REVISED CURRICULUM

ATTENTION : DEANS AND CHAIRPERSONS

FROM : DR. MANUEL M. MUHI

SUBJECT : OBE-COMPLIANT SYLLABI

DATE : FEBRUARY 2, 2018

Relative to your approved revised curricula, kindly provide this Office, not later than February 28, 2018, copy of OBE-Compliant Syllabi of all courses offered for the first year.

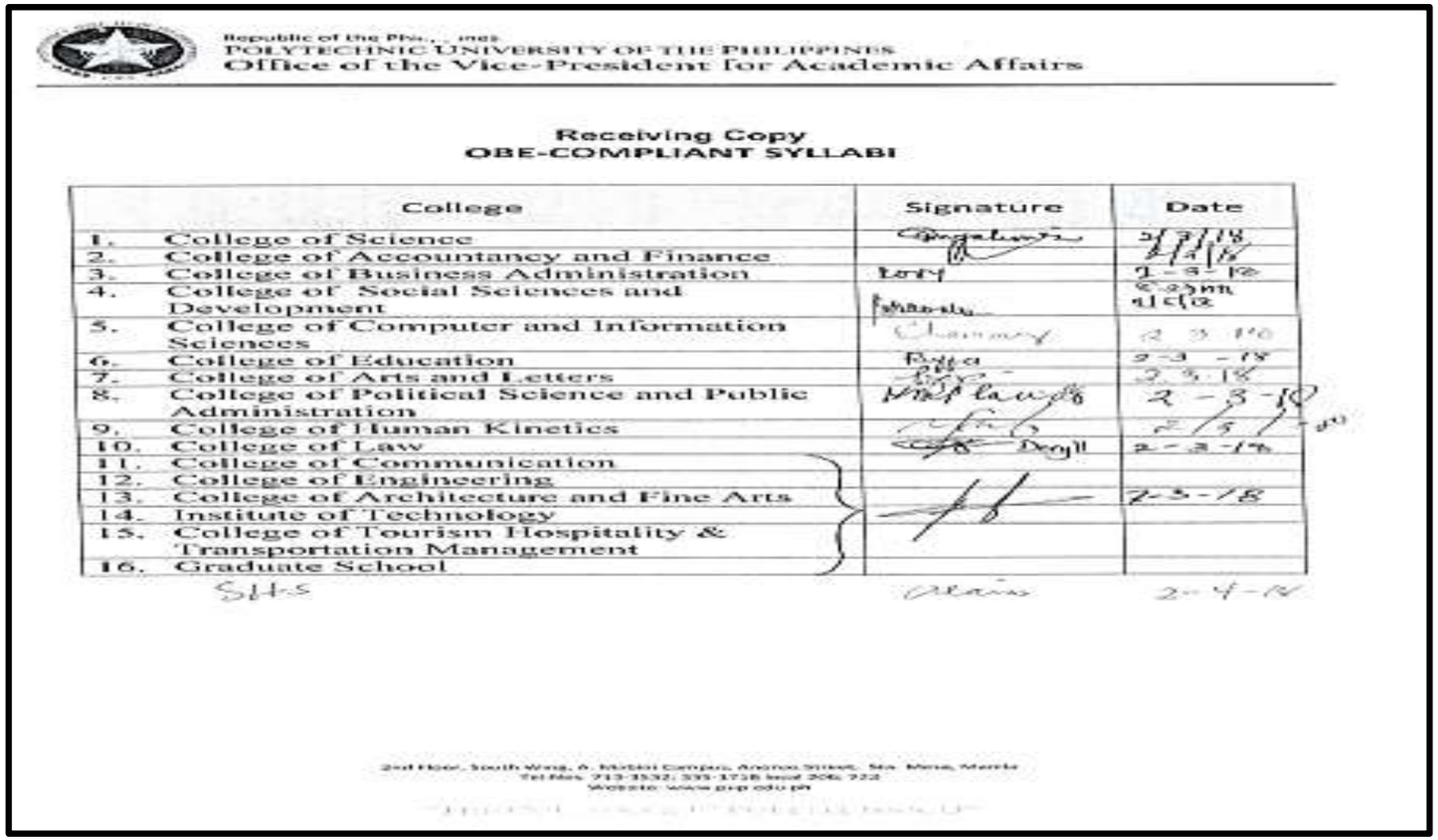
It is understood that available reference materials listed by the Ninoy Aquino Library and Learning Resources Center (NALLRC) should be reflected in the syllabi.

Please see attachments for the syllabi format and for the guide in writing learning outcomes.

Thank you.

2nd Floor, South Wing, A. Mabini Campus, Anonas Street, Sta. Mesa, Manila
Tel.Nos. 713 9532; 335-1787 local 205; 722
Website: www.pup.edu.ph

VPAA'S MEMO ON OBE-COMPLIANT SYLLABI



Republic of the Phi... ines
POLYTECHNIC UNIVERSITY OF THE PHILIPPINES
Office of the Vice-President for Academic Affairs

Receiving Copy
OBE-COMPLIANT SYLLABI

College	Signature	Date
1. College of Science		2/2/18
2. College of Accountancy and Finance		2/2/18
3. College of Business Administration		2-3-18
4. College of Social Sciences and Development		2-23-18
5. College of Computer and Information Sciences		2-3-18
6. College of Education		2-3-18
7. College of Arts and Letters		2-3-18
8. College of Political Science and Public Administration		2-3-18
9. College of Human Kinetics		2-5-18
10. College of Law		2-3-18
11. College of Communication		
12. College of Engineering		
13. College of Architecture and Fine Arts		2-5-18
14. Institute of Technology		
15. College of Tourism Hospitality & Transportation Management		
16. Graduate School		
SHS		2-4-18

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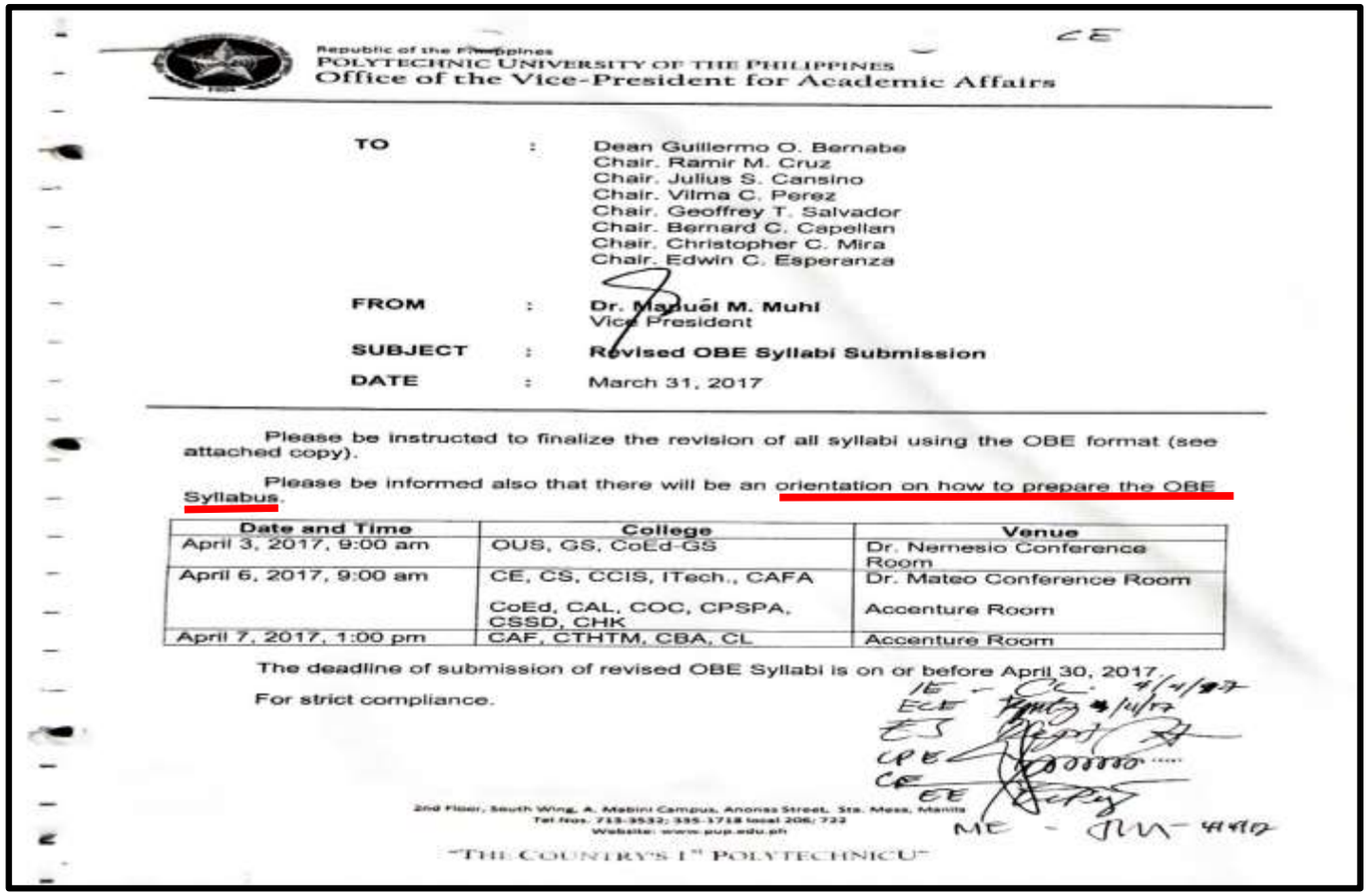
Tel Nos. 713-3532; 335-1738 local 306; 722
Website: www.pup.edu.ph

RECEIVING COPY OF THE VPAA'S MEMO ON OBE-COMPLIANT SYLLABUS



Republic of the Philippines
POLYTECHNIC UNIVERSITY OF THE PHILIPPINES
Office of the Vice-President for Academic Affairs

CE

TO : Dean Guillermo O. Bernabe
Chair. Ramir M. Cruz
Chair. Julius S. Cansino
Chair. Vilma C. Perez
Chair. Geoffrey T. Salvador
Chair. Bernard C. Capellan
Chair. Christopher C. Mira
Chair. Edwin C. Esperanza

FROM : **Dr. Manuel M. Muhi**
Vice President

SUBJECT : **Revised OBE Syllabi Submission**

DATE : March 31, 2017

Please be instructed to finalize the revision of all syllabi using the OBE format (see attached copy).

Please be informed also that there will be an orientation on how to prepare the OBE Syllabus.

Date and Time	College	Venue
April 3, 2017, 9:00 am	OUS, GS, CoEd-GS	Dr. Nemesio Conference Room
April 6, 2017, 9:00 am	CE, CS, CCIS, ITech., CAFA	Dr. Mateo Conference Room
	CoEd, CAL, COC, CPSPA, CSSD, CHK	Accenture Room
April 7, 2017, 1:00 pm	CAF, CTHTM, CBA, CL	Accenture Room

The deadline of submission of revised OBE Syllabi is on or before April 30, 2017.

For strict compliance.

IE - Ci 4/4/17
ECE 4/4/17
ES
CPE
CE
EE
ME - 4/4/17

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Tel Nos. 713-3532; 335-1718 local 206; 722
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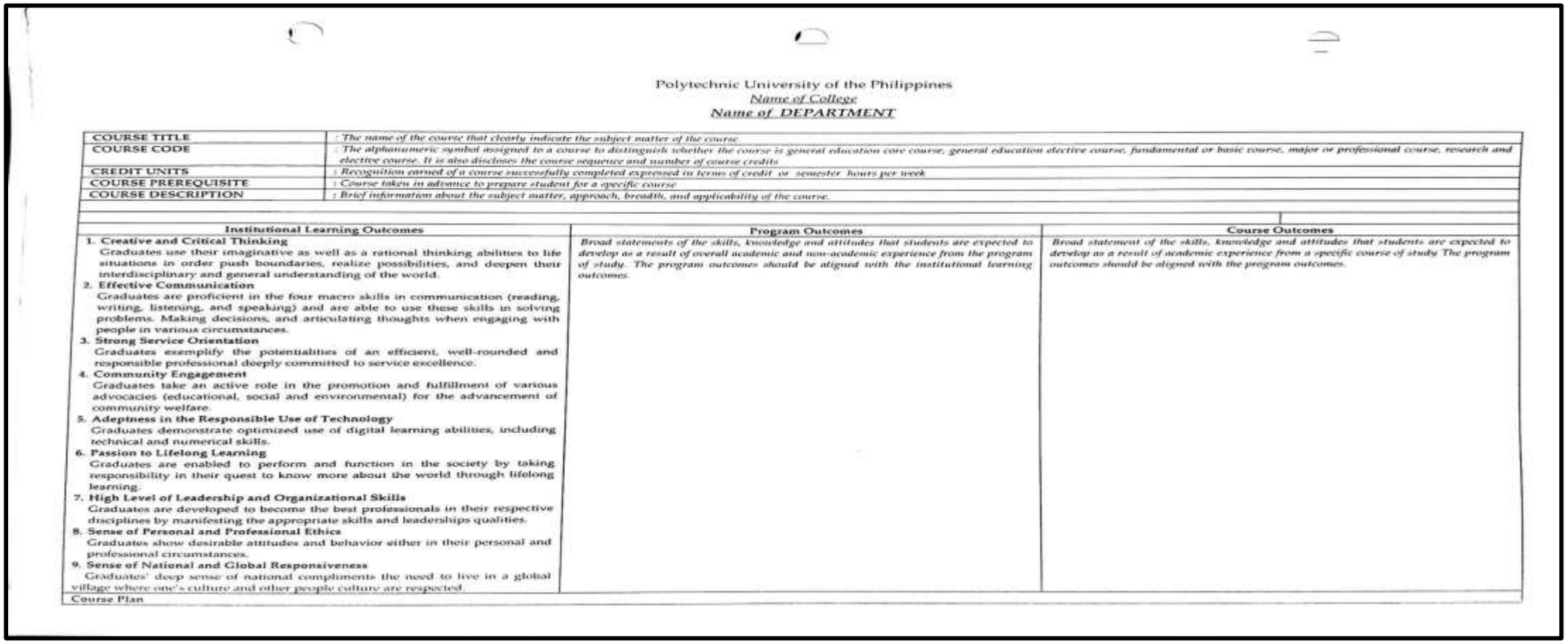
VPAA'S MEMO ON THE SUBMISSION OF THE REVISED OBE SYLLABI

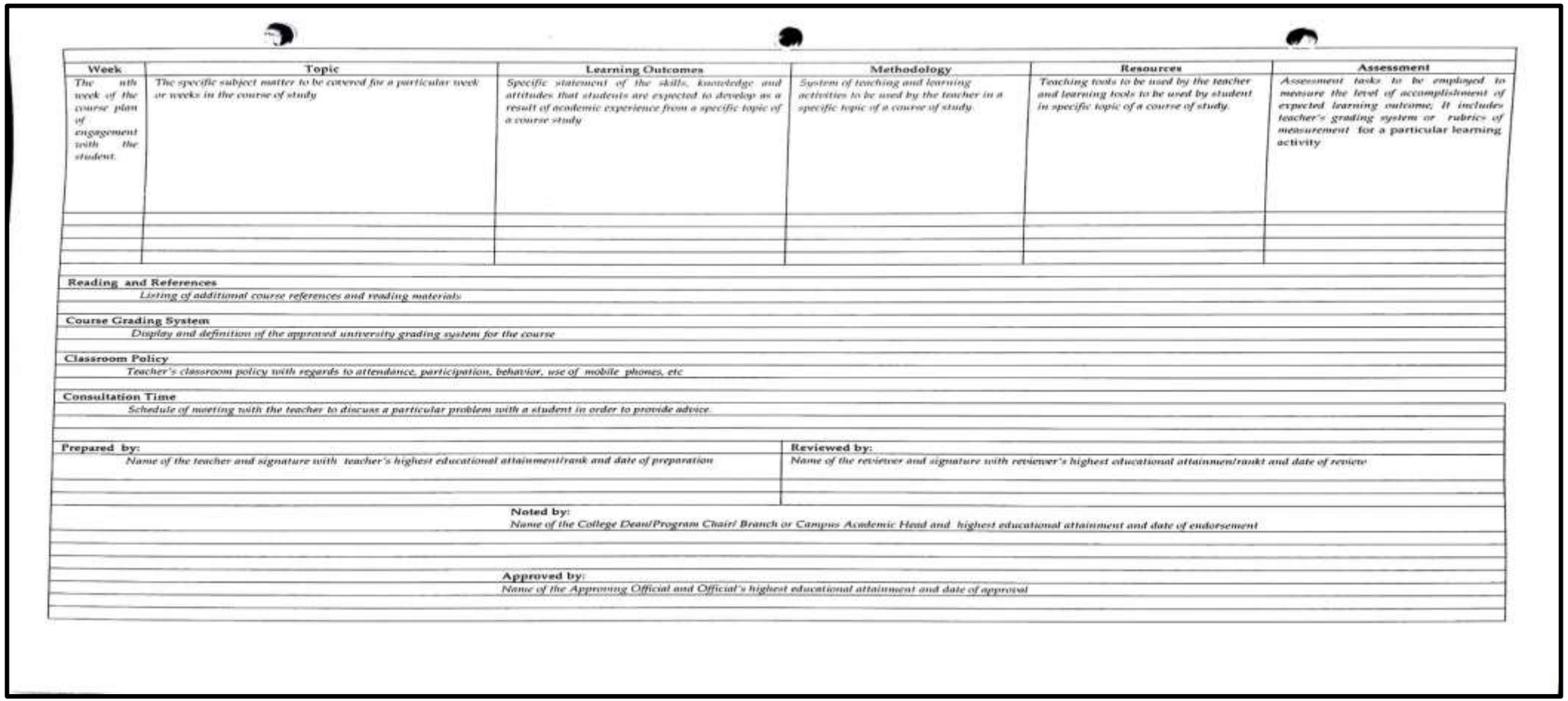


Polytechnic University of the Philippines
Name of College
Name of DEPARTMENT

COURSE TITLE	: *The name of the course that clearly indicate the subject matter of the course*
COURSE CODE	: *The alphanumeric symbol assigned to a course to distinguish whether the course is general education core course, general education elective course, fundamental or basic course, major or professional course, research and elective course. It is also discloses the course sequence and number of course credits*
CREDIT UNITS	: *Recognition earned of a course successfully completed expressed in terms of credit or semester hours per week*
COURSE PREREQUISITE	: *Course taken in advance to prepare student for a specific course*
COURSE DESCRIPTION	: *Brief information about the subject matter, approach, breadth, and applicability of the course.*

Institutional Learning Outcomes	Program Outcoones	Course Outcomes
1. **Creative and Critical Thinking** Graduates use their imaginative as well as a rational thinking abilities to life situations in order push boundaries, realize possibilities, and deepen their interdisciplinary and general understanding of the world. 2. **Effective Communication** Graduates are proficient in the four macro skills in communication (reading, writing, listening, and speaking) and are able to use these skills in solving problems. Making decisions, and articulating thoughts when engaging with people in various circumstances. 3. **Strong Service Orientation** Graduates exemplify the potentialities of an efficient, well-rounded and responsible professional deeply committed to service excellence. 4. **Community Engagement** Graduates take an active role in the promotion and fulfillment of various advocacies (educational, social and environmental) for the advancement of community welfare. 5. **Adeptness in the Responsible Use of Technology** Graduates demonstrate optimized use of digital learning abilities, including technical and numerical skills. 6. **Passion to Lifelong Learning** Graduates are enabled to perform and function in the society by taking responsibility in their quest to know more about the world through lifelong learning. 7. **High Level of Leadership and Organizational Skills** Graduates are developed to become the best professionals in their respective disciplines by manifesting the appropriate skills and leaderships qualities. 8. **Sense of Personal and Professional Ethics** Graduates show desirable attitudes and behavior either in their personal and professional circumstances. 9. **Sense of National and Global Responsiveness** Graduates' deep sense of national compliments the need to live in a global village where one's culture and other people culture are respected.	*Broad statements of the skills, knowledge and attitudes that students are expected to develop as a result of overall academic and non-academic experience from the program of study. The program outcomes should be aligned with the institutional learning outcomes.*	*Broad statement of the skills, knowledge and attitudes that students are expected to develop as a result of academic experience from a specific course of study. The program outcomes should be aligned with the program outcomes.*
Course Plan		

SCREENSHOT OF THE SAMPLE TEMPLATE OF THE REVISED OBE SYLLABUS



Week	Topic	Learning Outcomes	Methodology	Resources	Assessment
The nth week of the course plan of engagement with the student.	*The specific subject matter to be covered for a particular week or weeks in the course of study*	*Specific statement of the skills, knowledge and attitudes that students are expected to develop as a result of academic experience from a specific topic of a course study*	*System of teaching and learning activities to be used by the teacher in a specific topic of a course of study.*	*Teaching tools to be used by the teacher and learning tools to be used by student in specific topic of a course of study.*	*Assessment tasks to be employed to measure the level of accomplishment of expected learning outcome. It includes teacher's grading system or rubrics of measurement for a particular learning activity*

Reading and References
Listing of additional course references and reading materials

Course Grading System
Display and definition of the approved university grading system for the course

Classroom Policy
Teacher's classroom policy with regards to attendance, participation, behavior, use of mobile phones, etc

Consultation Time
Schedule of meeting with the teacher to discuss a particular problem with a student in order to provide advice

Prepared by:	**Reviewed by:**
Name of the teacher and signature with teacher's highest educational attainment/rank and date of preparation	*Name of the reviewer and signature with reviewer's highest educational attainment/rankt and date of reviete*

Noted by:
Name of the College Dean/Program Chair/ Branch or Campus Academic Head and highest educational attainment and date of endorsement

Approved by:
Name of the Approving Official and Official's highest educational attainment and date of approval

SCREENSHOT OF THE SAMPLE TEMPLATE OF THE REVISED OBE SYLLABUS

PHOTO OF THE OBE SEMINAR WORKSHOP CONDUCTED BY THE OVPAA

(02) 8713 5968 | dcoe_chair@gmail.com
RM322 CEA BLDG. NDC COMPOUND,
ANONAS COR. PUREZA STREETS, STA. MESA, MANILA

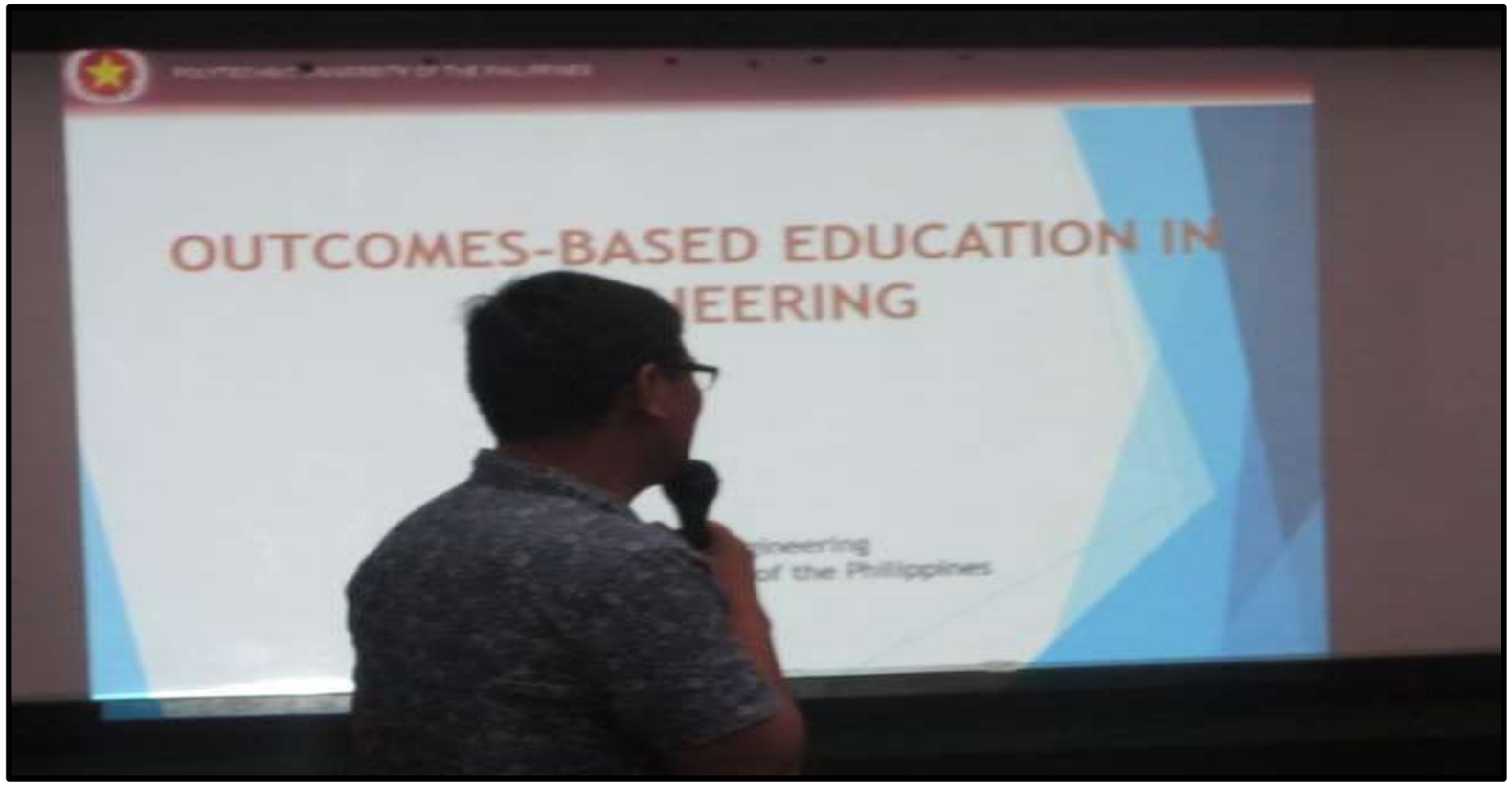


PHOTO OF THE OBE EDUCATION CONDUCTED FOR THE COLLEGE OF ENGINEERING

PHOTO OF FACULTY PARTICIPANTS IN THE OBE EDUCATION CONDUCTED FOR THE COLLEGE OF ENGINEERING

(02) 8713 5968 | dcoe_chair@gmail.com
RM322 CEA BLDG. NDC COMPOUND,
ANONAS COR. PUREZA STREETS, STA. MESA, MANILA

RECOMMENDATION #3

Copy of syllabus shall be filed in all concerned offices.

EVIDENCE OF COMPLIANCE

- Photos
- Screenshot of the Office Memo to the Dean's Office

(02) 8713 5968 | dcoe_chair@gmail.com
RM322 CEA BLDG. NDC COMPOUND,
ANONAS COR. PUREZA STREETS, STA. MESA, MANILA

CAPTURED SCREENSHOT OF TURN-OVER OF DEAN'S COPY OF THE SYLLABUS COMPILATION AT THE DEAN'S OFFICE

CAPTURED SCREENSHOT OF DEAN'S COPY OF THE SYLLABUS COMPILATION AT THE DEAN'S OFFICE

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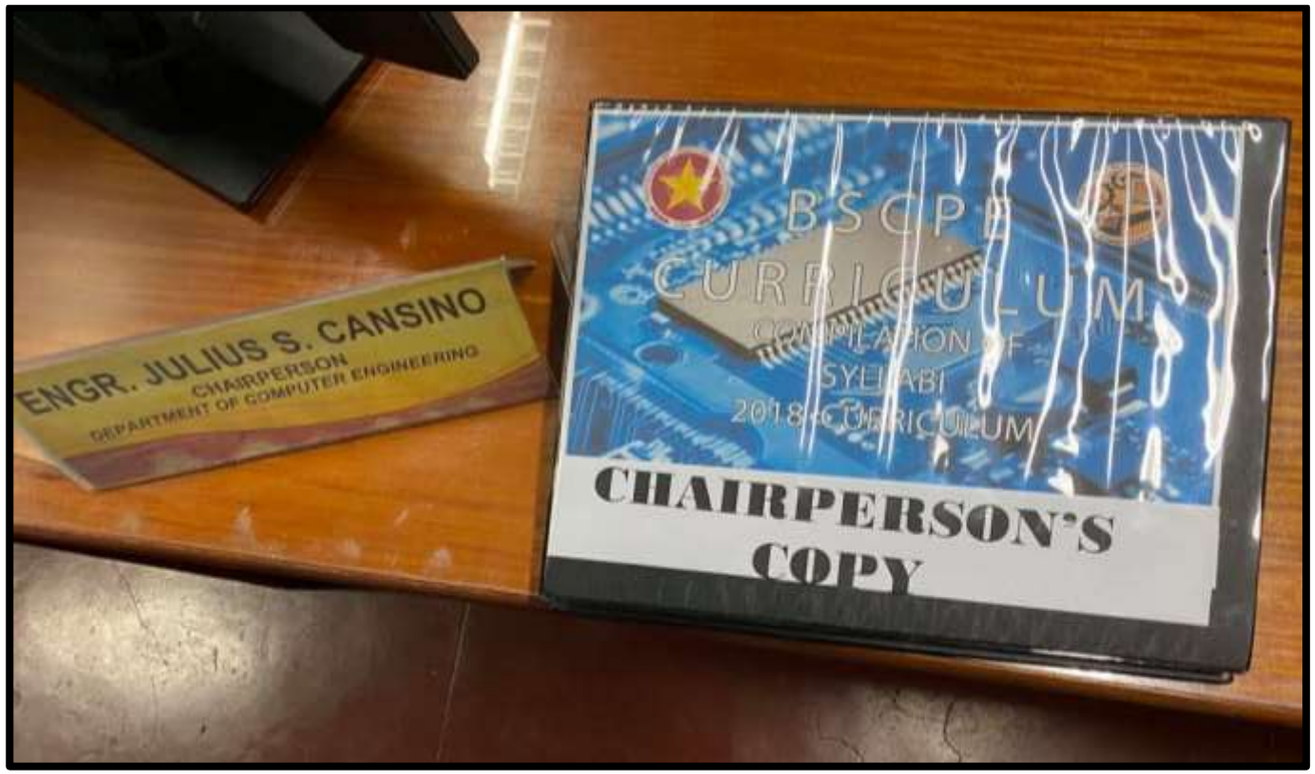

CAPTURED SCREENSHOT OF CHAIR'S COPY OF THE SYLLABUS COMPILATION AT THE CHAIRPERSON'S OFFICE

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CAPTURED SCREENSHOT OF CHAIR'S COPY OF THE SYLLABUS COMPILATION AT THE CHAIRPERSON'S OFFICE

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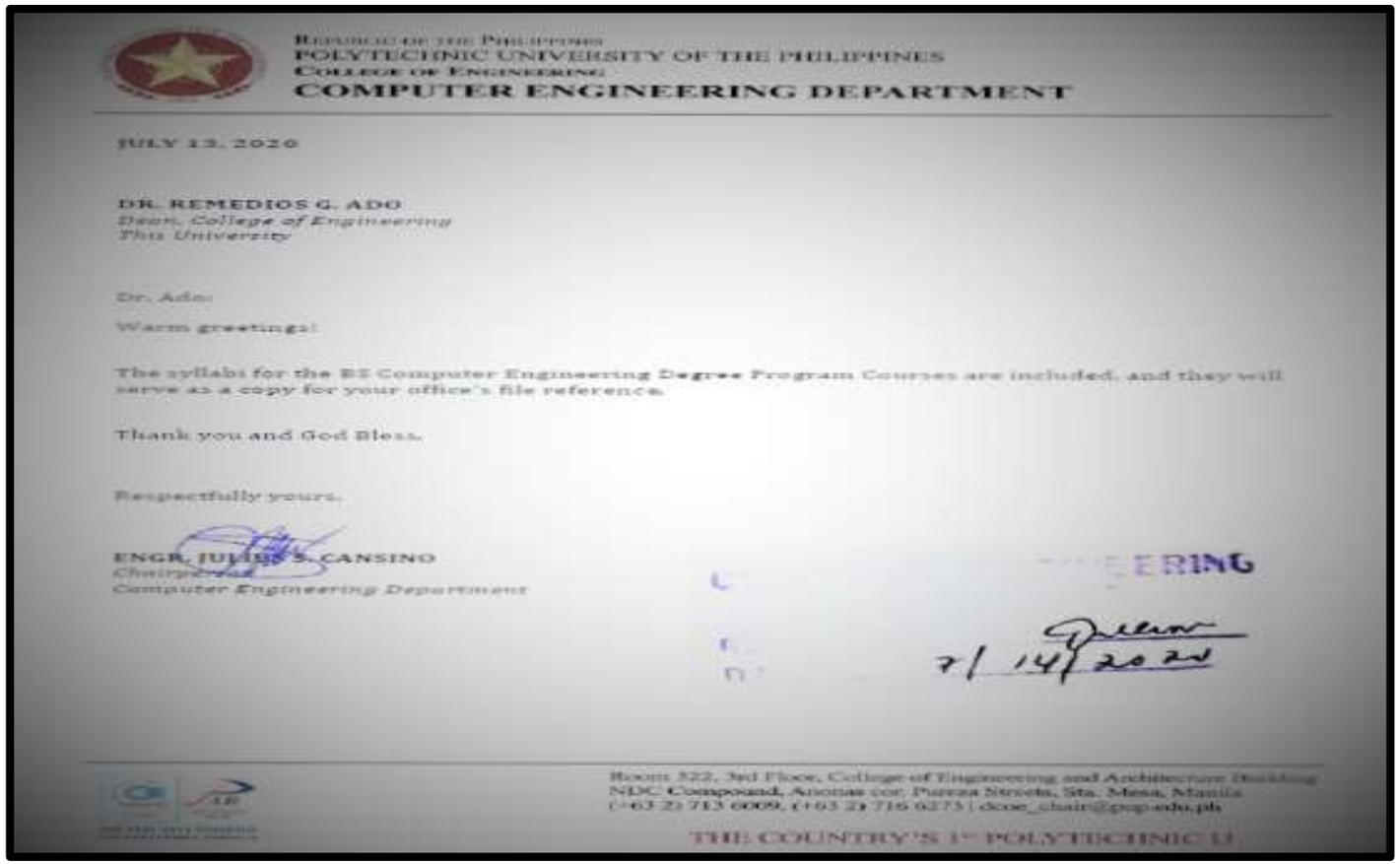

REPUBLIC OF THE PHILIPPINES
POLYTECHNIC UNIVERSITY OF THE PHILIPPINES
COLLEGE OF ENGINEERING
COMPUTER ENGINEERING DEPARTMENT

JULY 13, 2020

DR. REMEDIOS G. ADO
Dean, College of Engineering
This University

Dr. Ado:

Warm greetings!

The syllabi for the BS Computer Engineering Degree Program Courses are included, and they will serve as a copy for your office's file reference.

Thank you and God Bless.

Respectfully yours,

ENGR. JULIUS S. CANSINO
Chairperson
Computer Engineering Department

ERING

7/14/2020

Room 322, 3rd Floor, College of Engineering and Architecture Building
NDC Compound, Anonas cor. Pureza Streets, Sta. Mesa, Manila
(+63 2) 713 6009, (+63 2) 716 9273 | dcoe_chair@pup.edu.ph

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SCANNED COPY OF THE MEMO TO THE DEAN'S OFFICE FOR TURNING OVER THE COPY OF THE COMPILATION OF BSCpE COURSE SYLLABI

RECOMMENDATION #4

Creation of syllabi distribution list form may be considered.

EVIDENCE OF COMPLIANCE

- Photo of the previous form used in the syllabus distribution with students' signatures
- Screenshot of the revised form for syllabus distribution
- Screenshot of the Course Syllabus uploaded in MS-Teams for distribution in our Online Classes.

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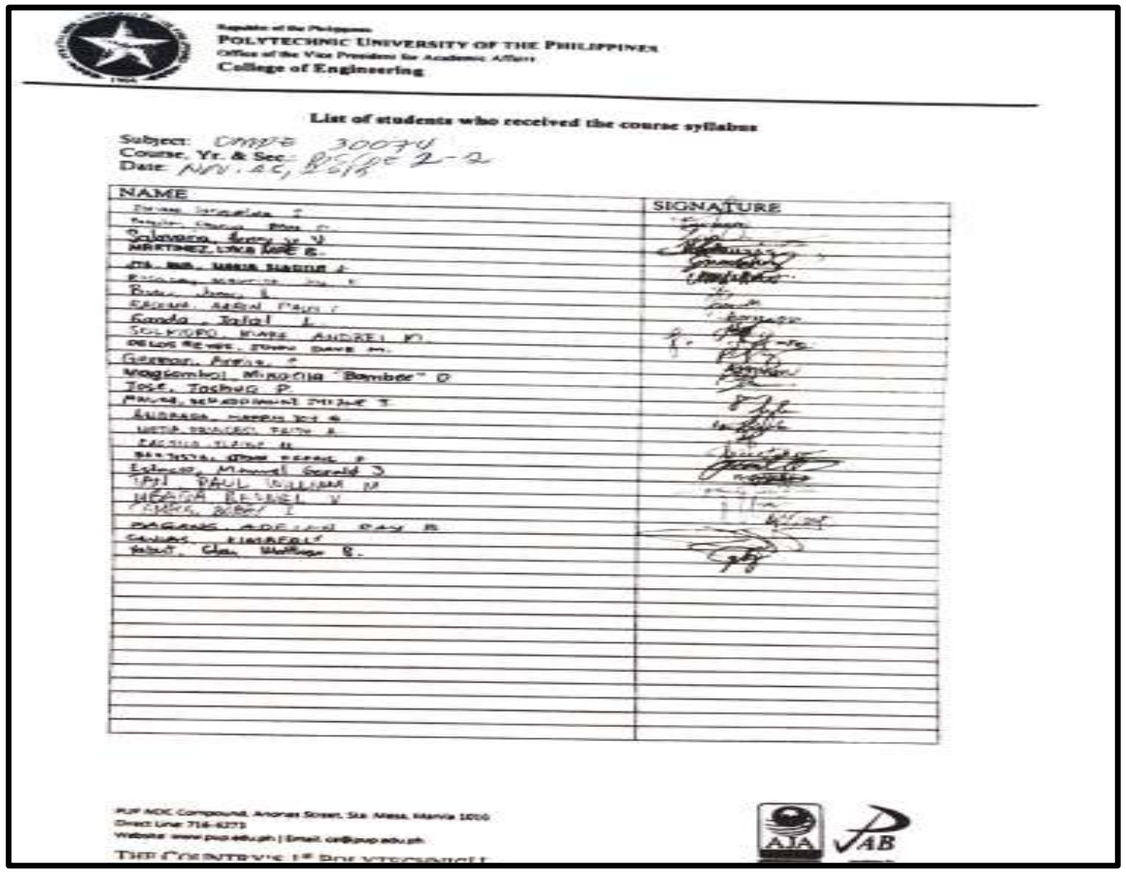

Republic of the Philippines
POLYTECHNIC UNIVERSITY OF THE PHILIPPINES
Office of the Vice President for Academic Affairs
College of Engineering

List of students who received the course syllabus

Subject: CMPE 30074
Course, Yr. & Sec.: BSCpE 2-2
Date: NOV. 26, 2016

NAME	SIGNATURE
[illegible]	[illegible]
[illegible]	[illegible]
Salavana, [illegible]	[illegible]
MARTINEZ, [illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
Gonda, Jalal L.	[illegible]
SOLMORO, [illegible] ANDREI M.	[illegible]
DELOS REYES, [illegible]	[illegible]
[illegible]	[illegible]
Magsombol, Mikaela "Bamber" D	[illegible]
Jose, Joshua P.	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
Estacio, Manuel Gerald J	[illegible]
[illegible] PAUL WILLIAM M	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]

PUP NDC Compound, Anonas Street, Sta. Mesa, Manila 1010
Direct Line: 716-6273
Website: www.pup.edu.ph | Email: ce@pup.edu.ph
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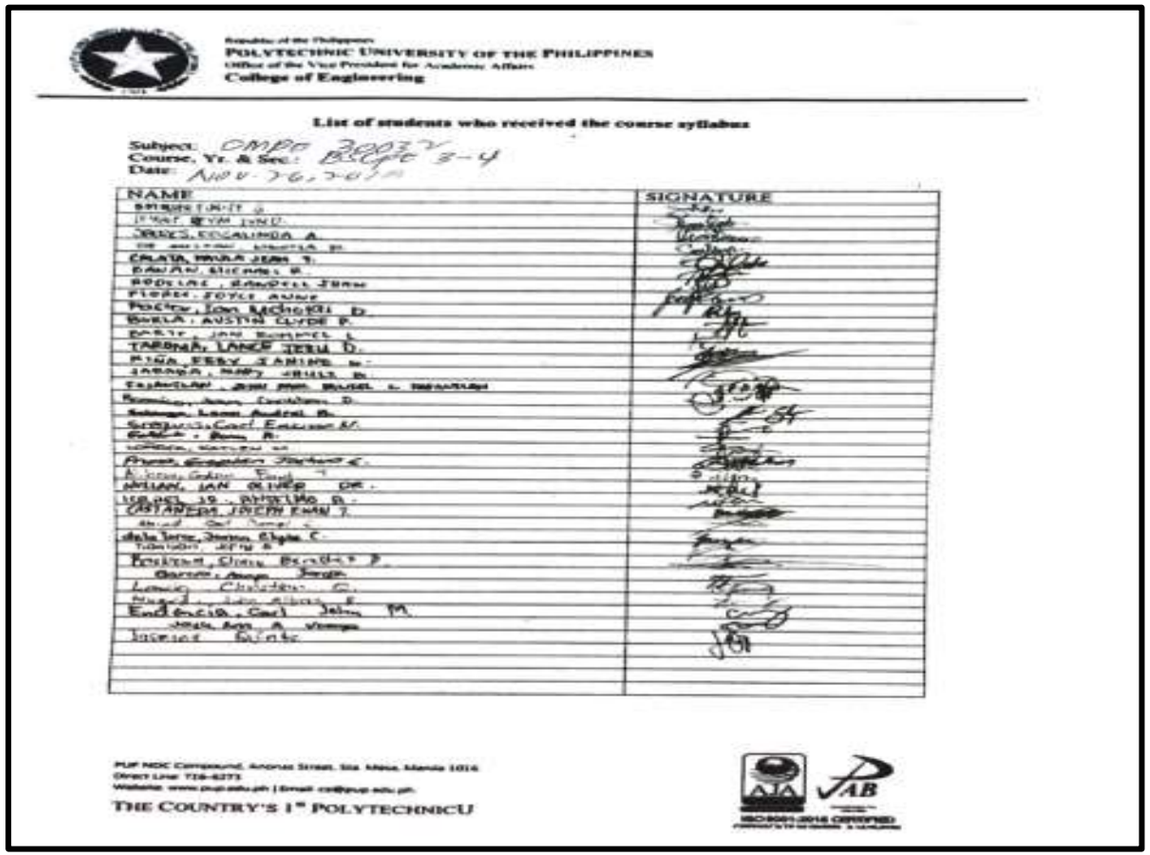
SCREENSHOT OF THE PREVIOUS FORM USED FOR SYLLABUS DISTRIBUTION WITH STUDENTS' SIGNATURES

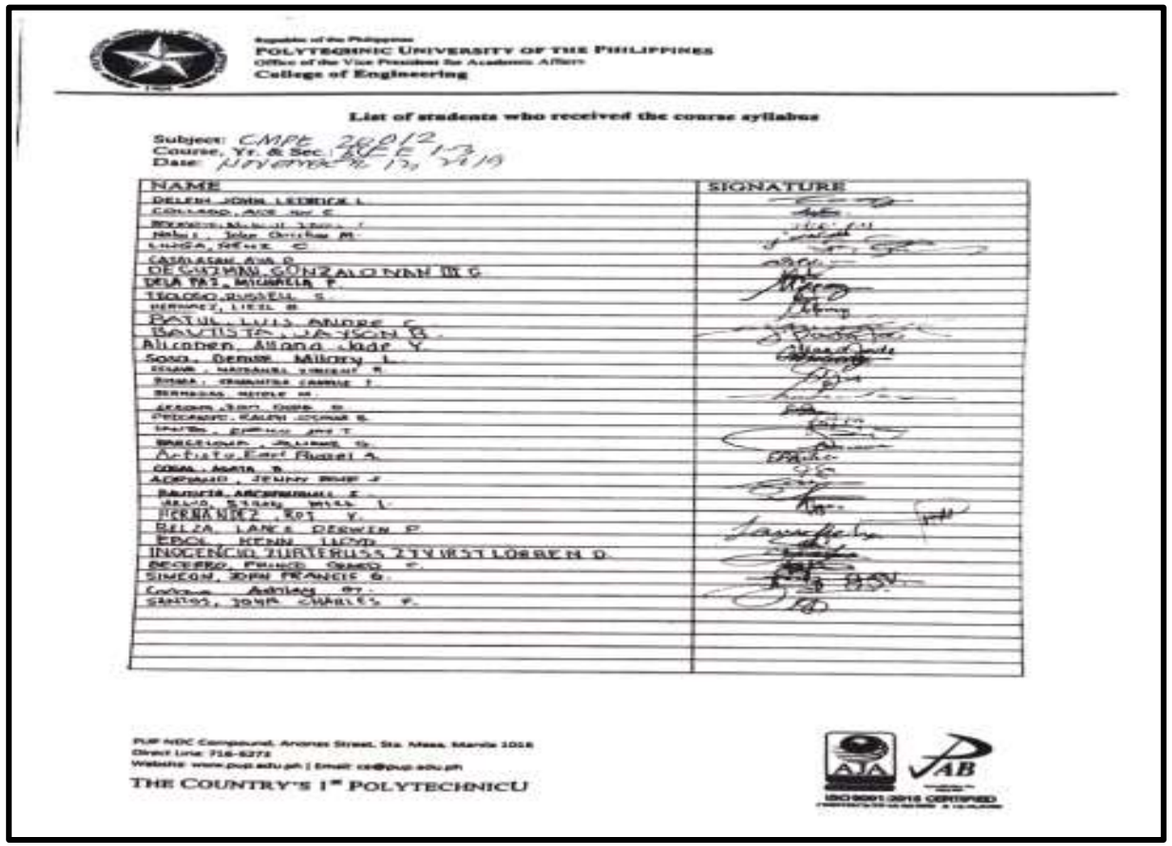


Republic of the Philippines
POLYTECHNIC UNIVERSITY OF THE PHILIPPINES
Office of the Vice President for Academic Affairs
College of Engineering

List of students who received the course syllabus

Subject: CMPE 30037
Course, Yr. & Sec: BSCpE 3-4
Date: Nov. 26, 2019

NAME	SIGNATURE
[illegible]	
[illegible]	
JOLICO, EDGALINDA A.	
[illegible]	
CALATA, MARIA JEAN T.	
BAGAY, SHERMAN B.	
BOCLIAE, ANGELI JEAN	
FLORES, JOYCE ANNE	
Pacion, Jon Michael D.	
BAELA, AUSTIN CLYDE P.	
BARTE, JAN RUPPEL L.	
TARONA, LANCE JESU D.	
PINA, FERY JANINE	
[illegible]	
[illegible]	
[illegible]



Republic of the Philippines
POLYTECHNIC UNIVERSITY OF THE PHILIPPINES
Office of the Vice President for Academic Affairs
College of Engineering

List of students who received the course syllabus

Subject: CMPE 20012
Course, Yr. & Sec.: BCE 1-3
Date: November 13, 2019

NAME	SIGNATURE
DELFIN JOHN LETRICK L.	
COLLADO, ACE [illegible] C.	
[illegible]	
[illegible], John Christian M.	
LINGA, [illegible] C.	
CASALAGAN, AYA D.	
DESUZMAN, GONZALO NAN III G.	
DELA PAZ, MICHAELA F.	
TEOLOGO, RUSSELL S.	
HERNANDEZ, LIEZL B.	
BATUL, LUIS ANDRE C.	
BAUTISTA, JAYSON B.	
Alicanen, Aliana Jade Y.	
Sosa, Denise Millary L.	
[illegible]	
[illegible]	
[illegible]	
[illegible]	
[illegible]	
[illegible]	
Artista, Earl Russel A.	
COSAL, AGATA B.	
ADRIANO, JENNY [illegible]	
[illegible]	
[illegible]	
HERNANDEZ, ROY Y.	
BELZA, LANCE DERWIN P.	
EBOL, KENN LLOYD	
INOCENCIO ZURTERUSS ZYVIRST LORREN D.	
BECERRO, PRINCE [illegible]	
SIMEON, JOHN FRANCIS G.	
[illegible]	
SANTOS, JOHN CHARLES F.	

PUP NDC Compound, Anonas Street, Sta. Mesa, Manila 1016
Direct Line: 716-6273
Website: www.pup.edu.ph | Email: ce@pup.edu.ph

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ISO 9001:2015 CERTIFIED

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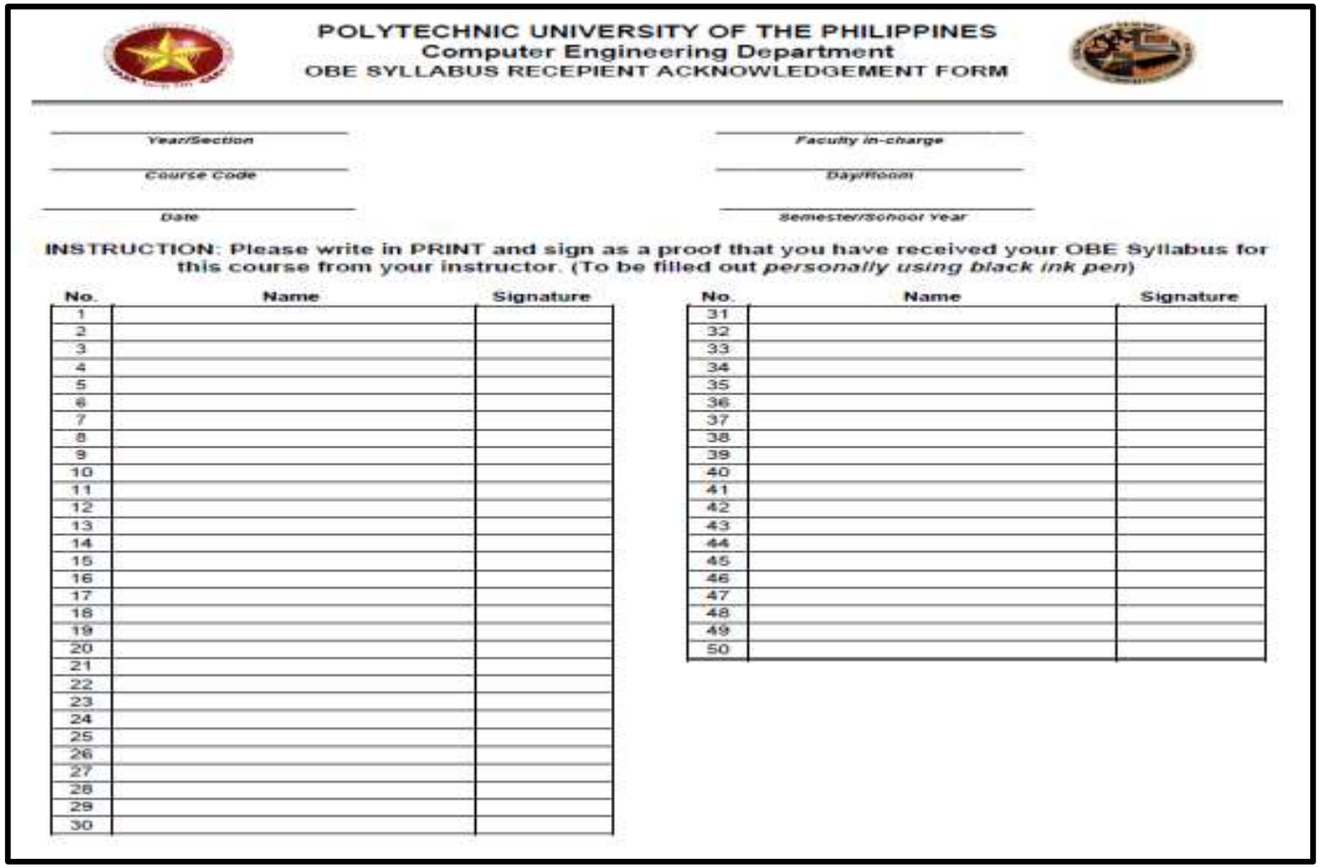

POLYTECHNIC UNIVERSITY OF THE PHILIPPINES
Computer Engineering Department
OBE SYLLABUS RECEPIENT ACKNOWLEDGEMENT FORM

Year/Section _____ Faculty in-charge _____

Course Code _____ Day/Room _____

Date _____ Semester/School Year _____

INSTRUCTION: Please write in PRINT and sign as a proof that you have received your OBE Syllabus for this course from your instructor. (To be filled out *personally using black ink pen*)

No.	Name	Signature
1		
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No.	Name	Signature
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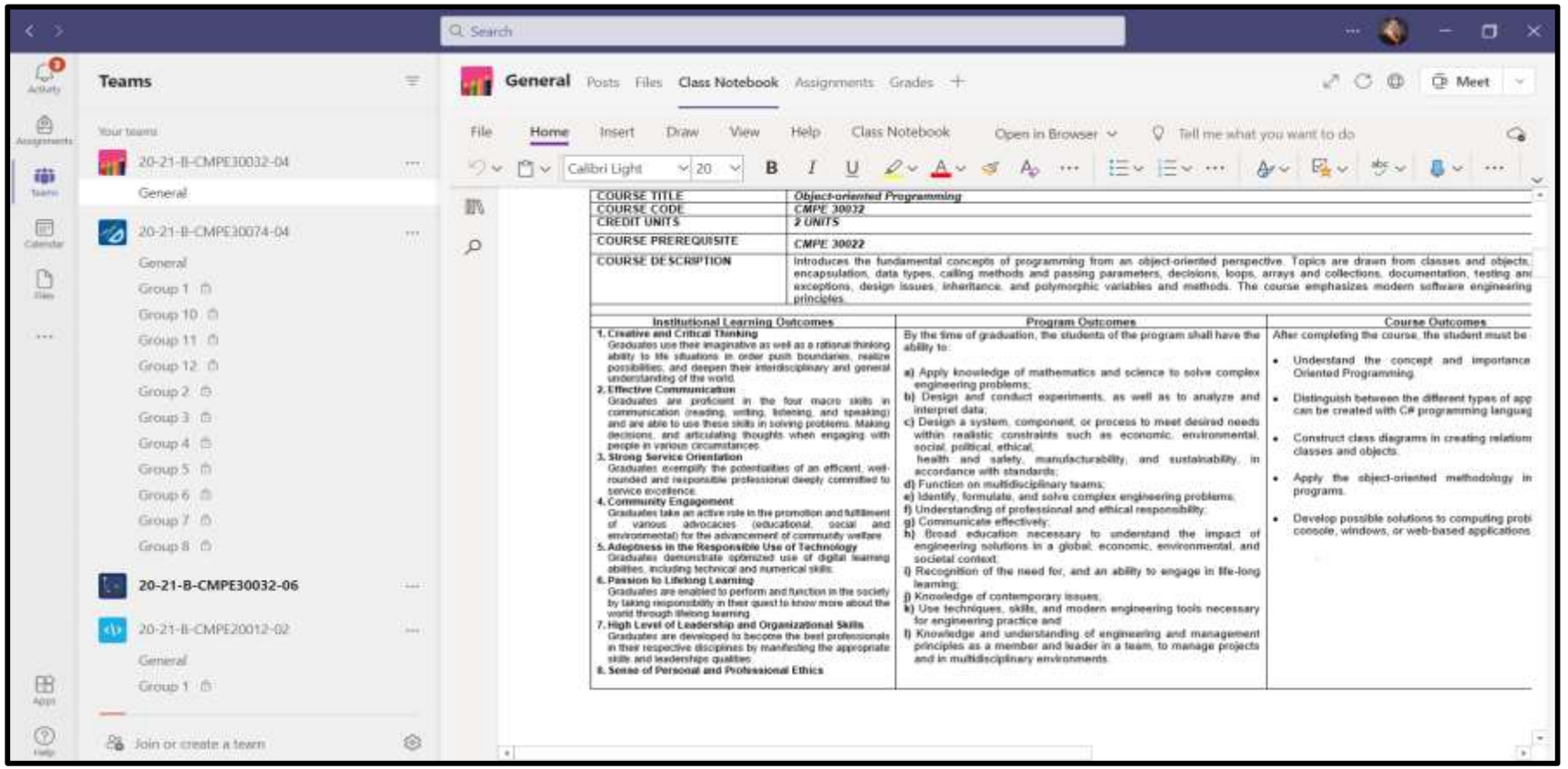
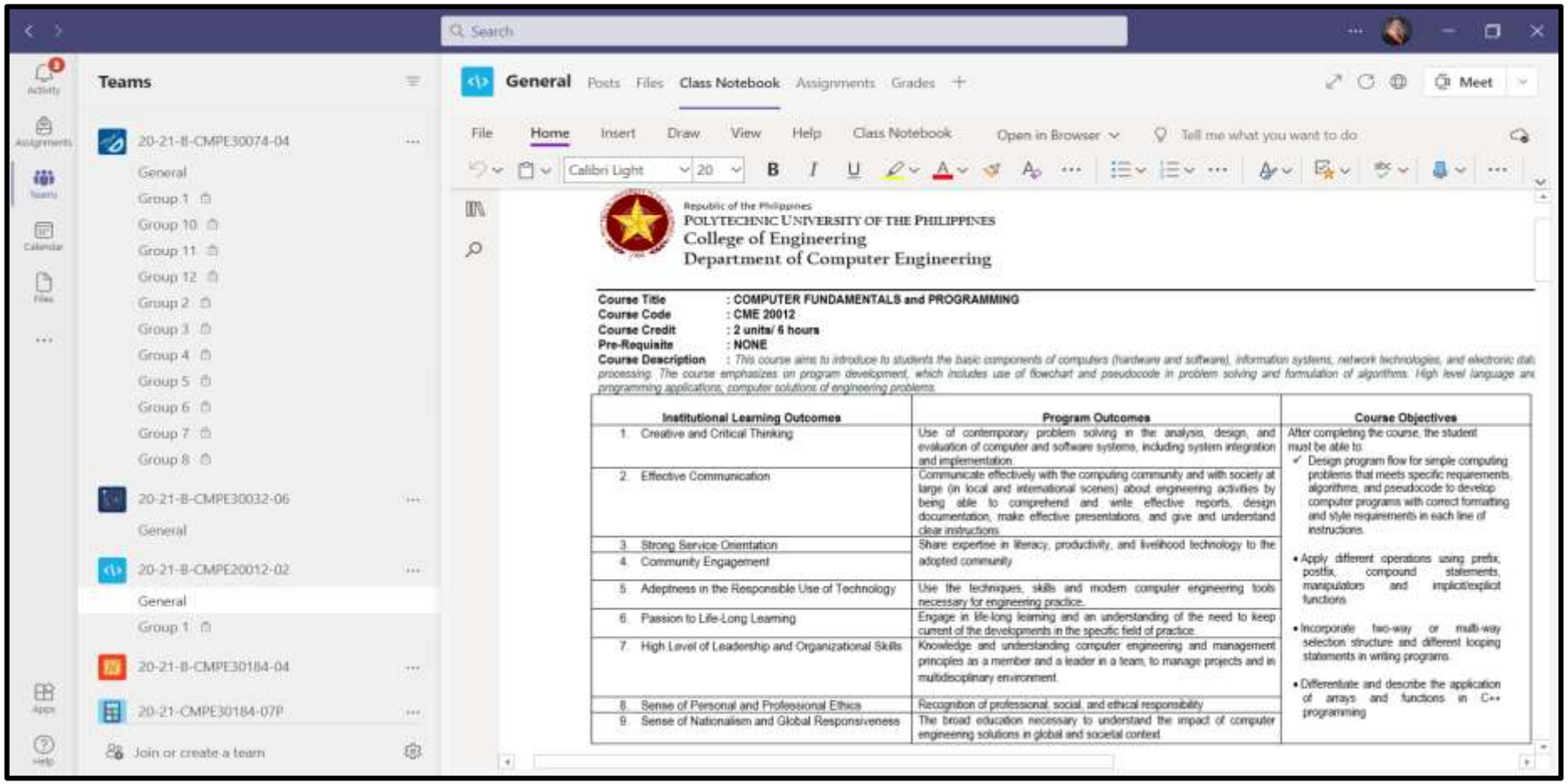
SCREENSHOT OF THE REVISED FORM FOR SYLLABUS DISTRIBUTION



SCREENSHOT OF THE COURSE SYLLABUS UPLOADED IN MS-TEAMS FOR DISTRIBUTION IN OUR ONLINE CLASSES



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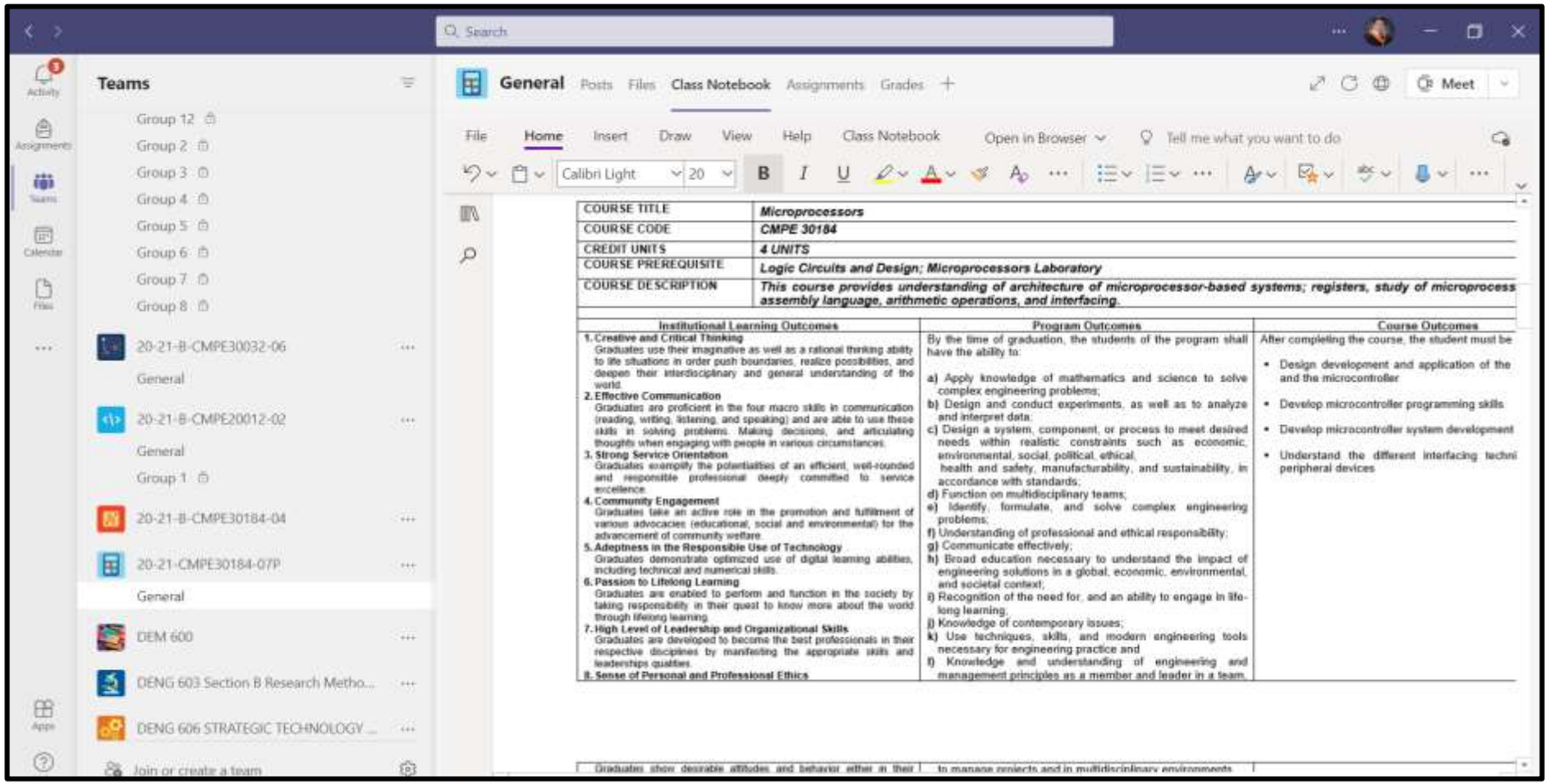

SCREENSHOT OF THE COURSE SYLLABUS UPLOADED IN MS-TEAMS FOR DISTRIBUTION IN OUR ONLINE CLASSES

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ISO 9001:2015 CERTIFIED
CERTIFICATE NUMBER: SCP6004130

RECOMMENDATION #5

The college may consider keeping a record of periodic and comprehensive faculty development plan.

EVIDENCE OF COMPLIANCE

- **Copy of the Faculty Development Plan submitted by the Department to Office of the Vice President of Academic Affairs.**

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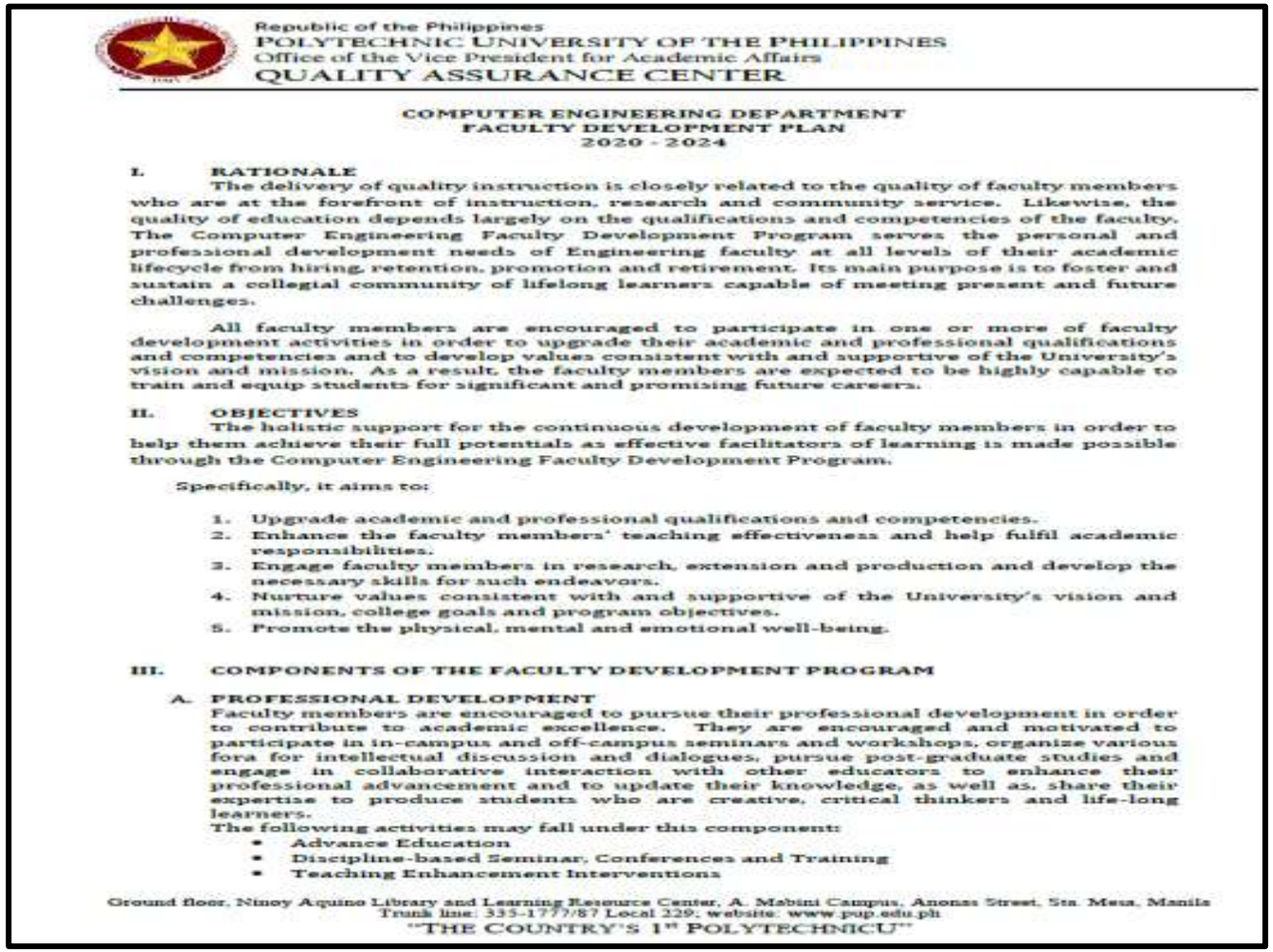
ANONAS COR. PUREZA STREETS, STA. MESA, MANILA



Republic of the Philippines
POLYTECHNIC UNIVERSITY OF THE PHILIPPINES
Office of the Vice President for Academic Affairs
QUALITY ASSURANCE CENTER

COMPUTER ENGINEERING DEPARTMENT
FACULTY DEVELOPMENT PLAN
2020 - 2024

I. RATIONALE

The delivery of quality instruction is closely related to the quality of faculty members who are at the forefront of instruction, research and community service. Likewise, the quality of education depends largely on the qualifications and competencies of the faculty. The Computer Engineering Faculty Development Program serves the personal and professional development needs of Engineering faculty at all levels of their academic lifecycle from hiring, retention, promotion and retirement. Its main purpose is to foster and sustain a collegial community of lifelong learners capable of meeting present and future challenges.

All faculty members are encouraged to participate in one or more of faculty development activities in order to upgrade their academic and professional qualifications and competencies and to develop values consistent with and supportive of the University's vision and mission. As a result, the faculty members are expected to be highly capable to train and equip students for significant and promising future careers.

II. OBJECTIVES

The holistic support for the continuous development of faculty members in order to help them achieve their full potentials as effective facilitators of learning is made possible through the Computer Engineering Faculty Development Program.

Specifically, it aims to:

1. Upgrade academic and professional qualifications and competencies.
2. Enhance the faculty members' teaching effectiveness and help fulfil academic responsibilities.
3. Engage faculty members in research, extension and production and develop the necessary skills for such endeavors.
4. Nurture values consistent with and supportive of the University's vision and mission, college goals and program objectives.
5. Promote the physical, mental and emotional well-being.

III. COMPONENTS OF THE FACULTY DEVELOPMENT PROGRAM

A. PROFESSIONAL DEVELOPMENT

Faculty members are encouraged to pursue their professional development in order to contribute to academic excellence. They are encouraged and motivated to participate in in-campus and off-campus seminars and workshops, organize various fora for intellectual discussion and dialogues, pursue post-graduate studies and engage in collaborative interaction with other educators to enhance their professional advancement and to update their knowledge, as well as, share their expertise to produce students who are creative, critical thinkers and life-long learners.

The following activities may fall under this component:

- Advance Education
- Discipline-based Seminar, Conferences and Training
- Teaching Enhancement Interventions

Ground floor, Ninoy Aquino Library and Learning Resource Center, A. Mabini Campus, Anonas Street, Sta. Mesa, Manila
Trunk line: 335-1777/87 Local 229; website: www.pup.edu.ph
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COPY OF THE COMPUTER ENGINEERING FACULTY DEVELOPMENT PLAN 2020 - 2024

Republic of the Philippines
POLYTECHNIC UNIVERSITY OF THE PHILIPPINES
Office of the Vice President for Academic Affairs
QUALITY ASSURANCE CENTER

B. **RESEARCH AND EXTENSION DEVELOPMENT**
Faculty members will be supported in their research endeavors through research funding, incentives and faculty exchange programs. They are encouraged to present their scholarly research outputs in various fora and publish in local, national and international publications and refereed academic journals.

Likewise, members of the faculty, both full-time and part-time, are encouraged to participate in the University's advocacy for community development consistent with its role as the "LIGHT OF THE NATION". It aims to fully integrate faculty members to the community and contribute in the upliftment of the people's quality of life through social and civic- oriented activities at the local and national levels.

The following activities may fall under this component:
- Research
- Extension
- Production

C. **PERSONAL, HEALTH AND INTEGRITY DEVELOPMENT**
If faculty members are to be effective in their role as educators, they are expected to be committed to their own personal development. The College is not only interested in the development of faculty members as responsible and competent professional but also concerned with their well-being. The objective is to attain a healthy mind in a healthy body. The program provides an environment conducive to teaching and learning. It prioritizes activities that promote good health, wellness and values development of faculty members so that they may better understand themselves, their colleagues and their students.

The following activities may fall under this component:
- Health and Wellness
- Values and Integrity Development
- Personality Development
- Leadership and Team-Building

OPERATIONAL DEFINITION:

Objectives – Targets to be achieve
Programs – Means to achieve the objectives. It may further be broken down into projects, activities and tasks.
Key Results Area (KRA) – Specific manifestations that the objective is being attained.
Performance Indicator – Numerical measurements attached to the KRA's. Theses PIs are the targeted performance outputs and outcomes.

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PROFESSIONAL DEVELOPMENT

OBJECTIVES	PROGRAM/ACTIVITIES	TARGET FACULTY	KEY RESULT AREAS (KRA)	PERFORMANCE INDICATOR/S	TIMELINE
Pillar 5: Empowered Faculty Members and Employees 1. To provide equal opportunities for career advancement and personal development of faculty and employees	Enroll in vertically aligned graduate programs. a. Master of Science in Computer Engineering b. Doctorate Degree in Engineering	1. Remedios G. Ado 2. Jake A. Binuya 3. Bucao, Bambi 4. Julius S. Cansino 5. John Dela Cruz 6. Norman David Delos Reyes 7. Julian Lorico Jr. 8. Rolito Mahaguay 9. Florinda Oquindo 10. Orlando Pajabera 11. Pedrito Tenerife Jr. 12.Joshua Benjamin Rodriguez 13.. Jan Reuelle Teña 14. Antonio Velasco	Improved faculty profile.	80% of the faculty (regular and part-time) with improved profile	2020-2024
				Percentage of plantilla faculty with MS/MA and Doctorate degrees	2021 – 80% (MA/ MS)
				Percentage increase in the number of faculty pursuing studies.	2021 – 60% (MA/ MS) 2024 – 10% PhD

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RESEARCH AND EXTENSION DEVELOPMENT

OBJECTIVES	PROGRAM/ACTIVITIES	TARGET FACULTY	KEY RESULT AREAS (KRA)	PERFORMANCE INDICATOR	TIMELINE
Pillar 6: Vigorous Research Production and Utilization 1. To intensify production of basic, applied, technology-based, and solution-oriented researches.	1. Engage in collaborative research (student and faculty): a. Present researches b. Publish researches	1. Remedios G. Ado 2. Julius S. Cansino 3. Arvin De La Cruz 4. John Dela Cruz 5. Rolito Mahaguay 6. Florinda Oquindo 7. Orlando Pajabera 8. Lutzer U. Reyes 9. joshua Benjamin Rodriguez 10. Jan Reuelle Teña 11. Pedrito Tenerife Jr. 12. Antonio Velasco	Research-oriented faculty members	70% of the regular faculty members are research oriented (production, presentation, and publication)	2020=30% 2021=40%
	2. Writeshop/ workshop on internally/ externally funded research proposals 3. Apply for internally/ externally funded research	1. Remedios G. Ado 2. Julius S. Cansino 3. Arvin De La Cruz 4. John Dela Cruz 5. Rolito Mahaguay 6. Florinda Oquindo 7. Orlando Pajabera 8. Lutzer U. Reyes 9. joshua Benjamin Rodriguez 10. Jan Reuelle Teña 11. Pedrito Tenerife Jr. 12. Antonio Velasco	Institutionally/ Externally Funded industry/government/non-government agency-driven research projects	At least one (1) industry-driven research projects initiated by the college/department	2021 – 1 2022 - 2
2. To provide more opportunities for dissemination of research outputs	1. Present researches in international conferences.	1. Remedios G. Ado 2. Julius S. Cansino 3. Arvin De La Cruz 4. John Dela Cruz 5. Rolito Mahaguay	Research outputs presented in recognized national and international conferences/forums.	70% of the regular faculty members presented their research works in various recognized	2021=40%

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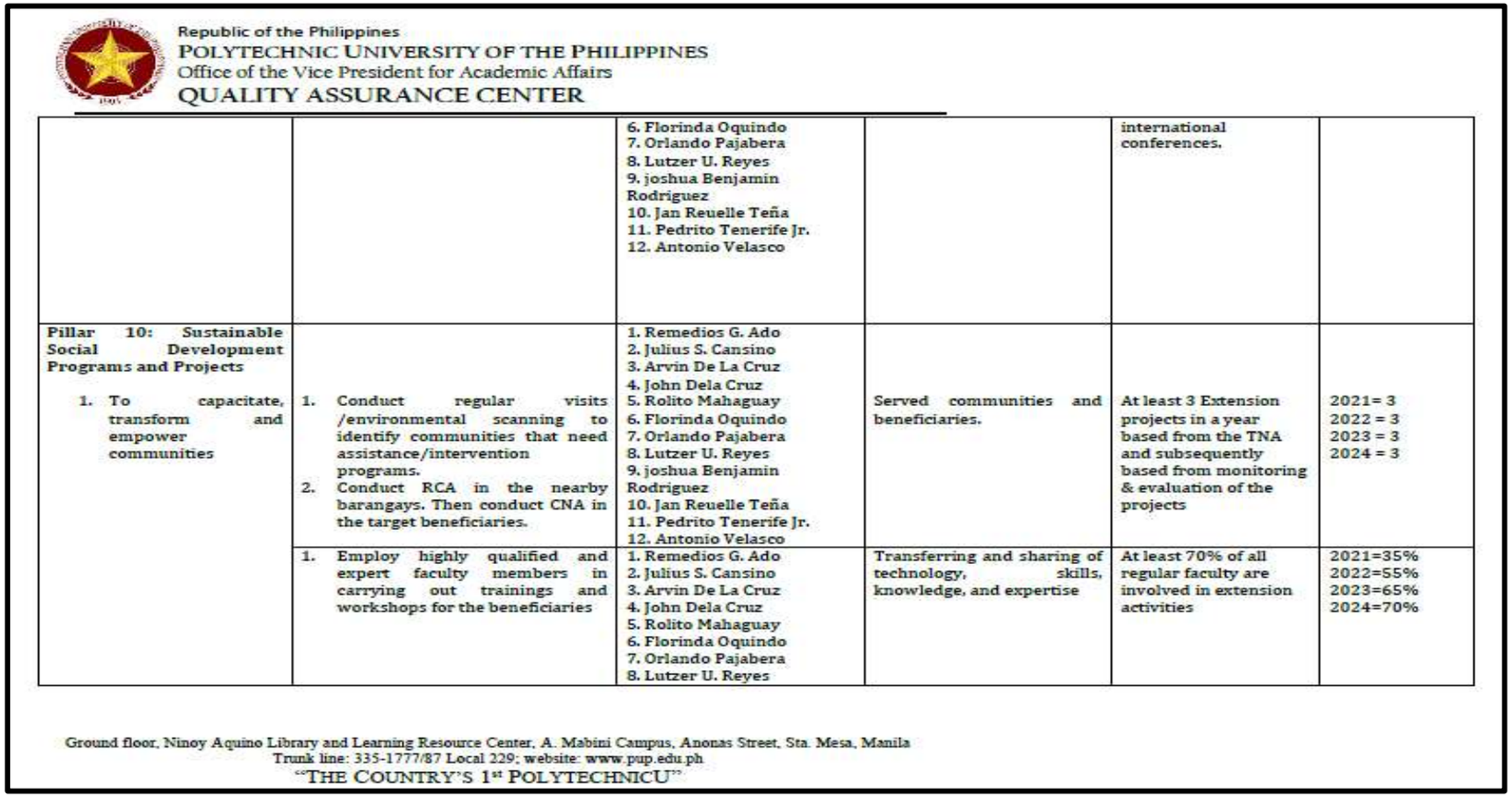

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		6. Florinda Oquindo 7. Orlando Pajabera 8. Lutzer U. Reyes 9. joshua Benjamin Rodriguez 10. Jan Reuelle Teña 11. Pedrito Tenerife Jr. 12. Antonio Velasco		international conferences.	
Pillar 10: Sustainable Social Development Programs and Projects 1. To capacitate, transform and empower communities	1. Conduct regular visits /environmental scanning to identify communities that need assistance/intervention programs. 2. Conduct RCA in the nearby barangays. Then conduct CNA in the target beneficiaries.	1. Remedios G. Ado 2. Julius S. Cansino 3. Arvin De La Cruz 4. John Dela Cruz 5. Rolito Mahaguay 6. Florinda Oquindo 7. Orlando Pajabera 8. Lutzer U. Reyes 9. joshua Benjamin Rodriguez 10. Jan Reuelle Teña 11. Pedrito Tenerife Jr. 12. Antonio Velasco	Served communities and beneficiaries.	At least 3 Extension projects in a year based from the TNA and subsequently based from monitoring & evaluation of the projects	2021= 3 2022 = 3 2023 = 3 2024 = 3
	1. Employ highly qualified and expert faculty members in carrying out trainings and workshops for the beneficiaries	1. Remedios G. Ado 2. Julius S. Cansino 3. Arvin De La Cruz 4. John Dela Cruz 5. Rolito Mahaguay 6. Florinda Oquindo 7. Orlando Pajabera 8. Lutzer U. Reyes	Transferring and sharing of technology, skills, knowledge, and expertise	At least 70% of all regular faculty are involved in extension activities	2021=35% 2022=55% 2023=65% 2024=70%

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		9. joshua Benjamin Rodriguez 10. Jan Reuelle Teña 11. Pedrito Tenerife Jr. 12. Antonio Velasco			
	1. Inclusion of gender-related project proposals and extension projects.	1. Remedios G. Ado 2. Julius S. Cansino 3. Arvin De La Cruz 4. John Dela Cruz 5. Rolito Mahaguay 6. Florinda Oquindo 7. Orlando Pajabera 8. Lutzer U. Reyes 9. joshua Benjamin Rodriguez 10. Jan Reuelle Teña 11. Pedrito Tenerife Jr. 12. Antonio Velasco	Gender responsive extension programs (Basis: CMO No. 1, series of 2015, Part VII)	25% of extension projects involves women, single parents, senior citizen, PWDs, LGBTQ+ and other vulnerable sector of communities as participants	2021=10% 2022=15% 2023=20% 2024 =25%
2. To provide technical and or expert services programs	1. Conduct Extension Capability Building Seminars and Activities	1. Remedios G. Ado 2. Julius S. Cansino 3. Arvin De La Cruz 4. John Dela Cruz 5. Rolito Mahaguay 6. Florinda Oquindo 7. Orlando Pajabera 8. Lutzer U. Reyes 9. joshua Benjamin Rodriguez 10. Jan Reuelle Teña 11. Pedrito Tenerife Jr. 12. Antonio Velasco	Research-based extension activities	Conduct Extension Capability Building Seminars and Activities	2021=100% 2022=100% 2023=100% 2024=100%
3. To provide sustainable Extension Programs	1. Encourage the continuous development and maintenance of relationships/	1. Remedios G. Ado 2. Julius S. Cansino 3. Arvin De La Cruz	Established linkages/ partnerships with International, National and	5% increase in the number of established MOA/MOU per year.	2021=2% 2022=3% 2023=4%

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	partnerships with various institutions.	4. John Dela Cruz 5. Rolito Mahaguay 6. Florinda Oquindo 7. Orlando Pajabera 8. Lutzer U. Reyes 9. joshua Benjamin Rodriguez 10. Jan Reuelle Teña 11. Pedrito Tenerife Jr. 12. Antonio Velasco	Local Government Units/Agencies, Non-Government Organizations, private organizations and other education institutions		2024=5%

PERSONAL, HEALTH AND INTEGRITY DEVELOPMENT

OBJECTIVES	PROGRAM/ACTIVITIES	TARGET FACULTY	KEY RESULT AREAS (KRA)	PERFORMANCE INDICATOR	TIMELINE
Pillar 1: Dynamic, Transformational, and Responsible Leadership 1. To implement a judicious system of rewards and sanctions	Be involved in formulation of new monetary or non-monetary incentives for officials and employees who significantly contribute to the attainment of the university's vision, mission, goals and objectives	1. Remedios G. Ado 2. Julius S. Cansino 3. Arvin De La Cruz 4. John Dela Cruz 5. Rolito Mahaguay 6. Florinda Oquindo 7. Orlando Pajabera 8. Lutzer U. Reyes 9. joshua Benjamin Rodriguez 10. Jan Reuelle Teña 11. Pedrito Tenerife Jr. 12. Antonio Velasco	Incentivizing and rewarding University personnel that demonstrate highest degree of professionalism and observed established legal and ethical standards	Number of new and upgraded performance-based incentives and rewards programs for faculty and employees.	At least one (1) new and one (1) upgraded performance-based incentive and reward program per year
Pillar 3: Enabling and Productive Learning Environment		1. Remedios G. Ado 2. Julius S. Cansino 3. Arvin De La Cruz 4. John Dela Cruz 5. Rolito Mahaguay			2021 = 90%

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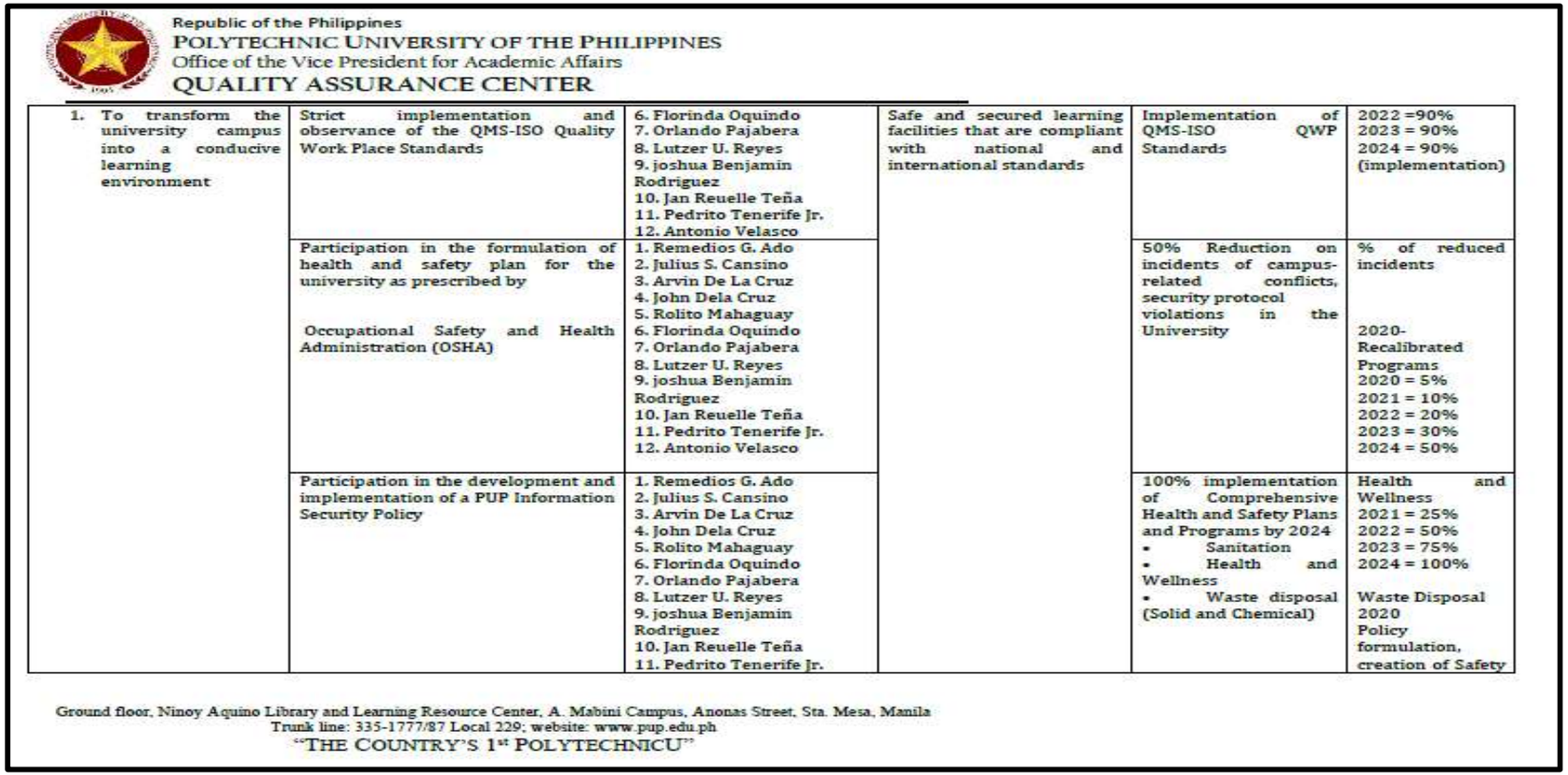

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1. To transform the university campus into a conducive learning environment	Strict implementation and observance of the QMS-ISO Quality Work Place Standards	6. Florinda Oquindo 7. Orlando Pajabera 8. Lutzer U. Reyes 9. joshua Benjamin Rodriguez 10. Jan Reuelle Teña 11. Pedrito Tenerife Jr. 12. Antonio Velasco	Safe and secured learning facilities that are compliant with national and international standards	Implementation of QMS-ISO QWP Standards	2022 =90% 2023 = 90% 2024 = 90% (implementation)
	Participation in the formulation of health and safety plan for the university as prescribed by Occupational Safety and Health Administration (OSHA)	1. Remedios G. Ado 2. Julius S. Cansino 3. Arvin De La Cruz 4. John Dela Cruz 5. Rolito Mahaguay 6. Florinda Oquindo 7. Orlando Pajabera 8. Lutzer U. Reyes 9. joshua Benjamin Rodriguez 10. Jan Reuelle Teña 11. Pedrito Tenerife Jr. 12. Antonio Velasco		50% Reduction on incidents of campus-related conflicts, security protocol violations in the University	% of reduced incidents 2020-Recalibrated Programs 2020 = 5% 2021 = 10% 2022 = 20% 2023 = 30% 2024 = 50%
	Participation in the development and implementation of a PUP Information Security Policy	1. Remedios G. Ado 2. Julius S. Cansino 3. Arvin De La Cruz 4. John Dela Cruz 5. Rolito Mahaguay 6. Florinda Oquindo 7. Orlando Pajabera 8. Lutzer U. Reyes 9. joshua Benjamin Rodriguez 10. Jan Reuelle Teña 11. Pedrito Tenerife Jr.		100% implementation of Comprehensive Health and Safety Plans and Programs by 2024 • Sanitation • Health and Wellness • Waste disposal (Solid and Chemical)	Health and Wellness 2021 = 25% 2022 = 50% 2023 = 75% 2024 = 100% Waste Disposal 2020 Policy formulation, creation of Safety

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		12. Antonio Velasco			plan and accreditation of safety officers by 2021. Vision of 2023 Zero Accident. 20% Appraisal and Disposal for items for disposal based on returned items
2. To adopt and utilize advanced technology and equipment to improve teaching and learning and provide educational opportunities	Participation in the development and submission of a University-wide ICT Modernization Project Plan for Congressional Budgeting FY 2022.	1. Remedios G. Ado 2. Julius S. Cansino 3. Arvin De La Cruz 4. John Dela Cruz 5. Rolito Mahaguay 6. Florinda Oquindo 7. Orlando Pajabera 8. Lutzer U. Reyes 9. joshua Benjamin Rodriguez 10. Jan Reuelle Teña 11. Pedrito Tenerife Jr. 12. Antonio Velasco	State-of-the-art ICT facilities and equipment	80% Implementation of ICT Modernization Project Plan (Hardware and Software)	2020: 0% 2021: 50% 2022: 60% 2023: 70% 2024: 80%

PREPARED BY:

ENGR. JULIUS S. CANSINO
Chairperson, CpE DepartmentAPPROVED BY:

DR. REMEDIOS G. ADO
Dean, College of Engineering

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RECOMMENDATION #6

It is suggested to conduct a periodic graduate tracer study.

EVIDENCE OF COMPLIANCE

- **Copy of the PUP Graduates Tracer Study conducted by the PUP-IDSA**

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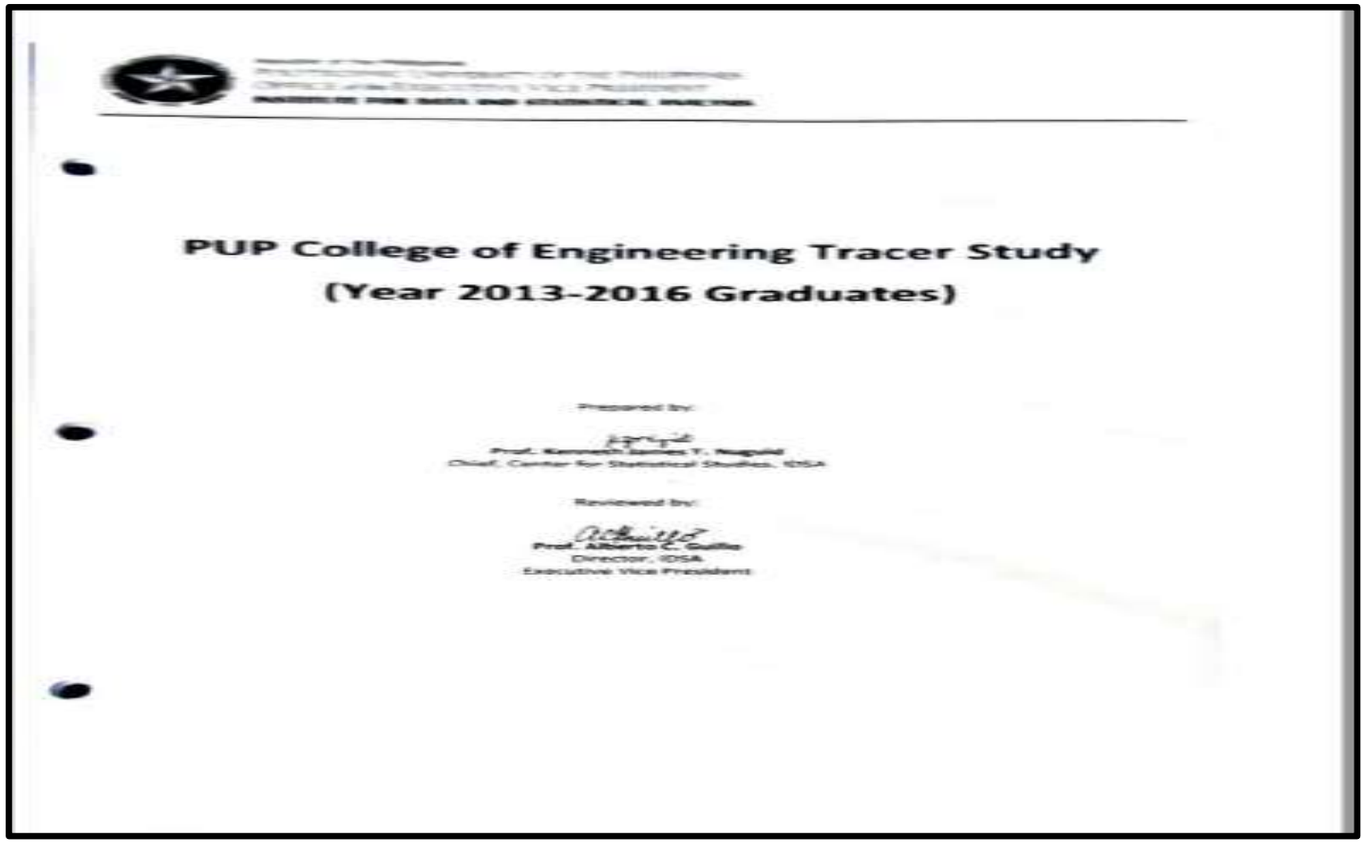

PUP College of Engineering Tracer Study
(Year 2013-2016 Graduates)

Prepared by:

Prof. Kenneth [illegible] T. Nagpal
Chief, Center for Statistical Studies, IDSA

Reviewed by:

Prof. Alberto C. Gallos
Director, IDSA
Executive Vice President

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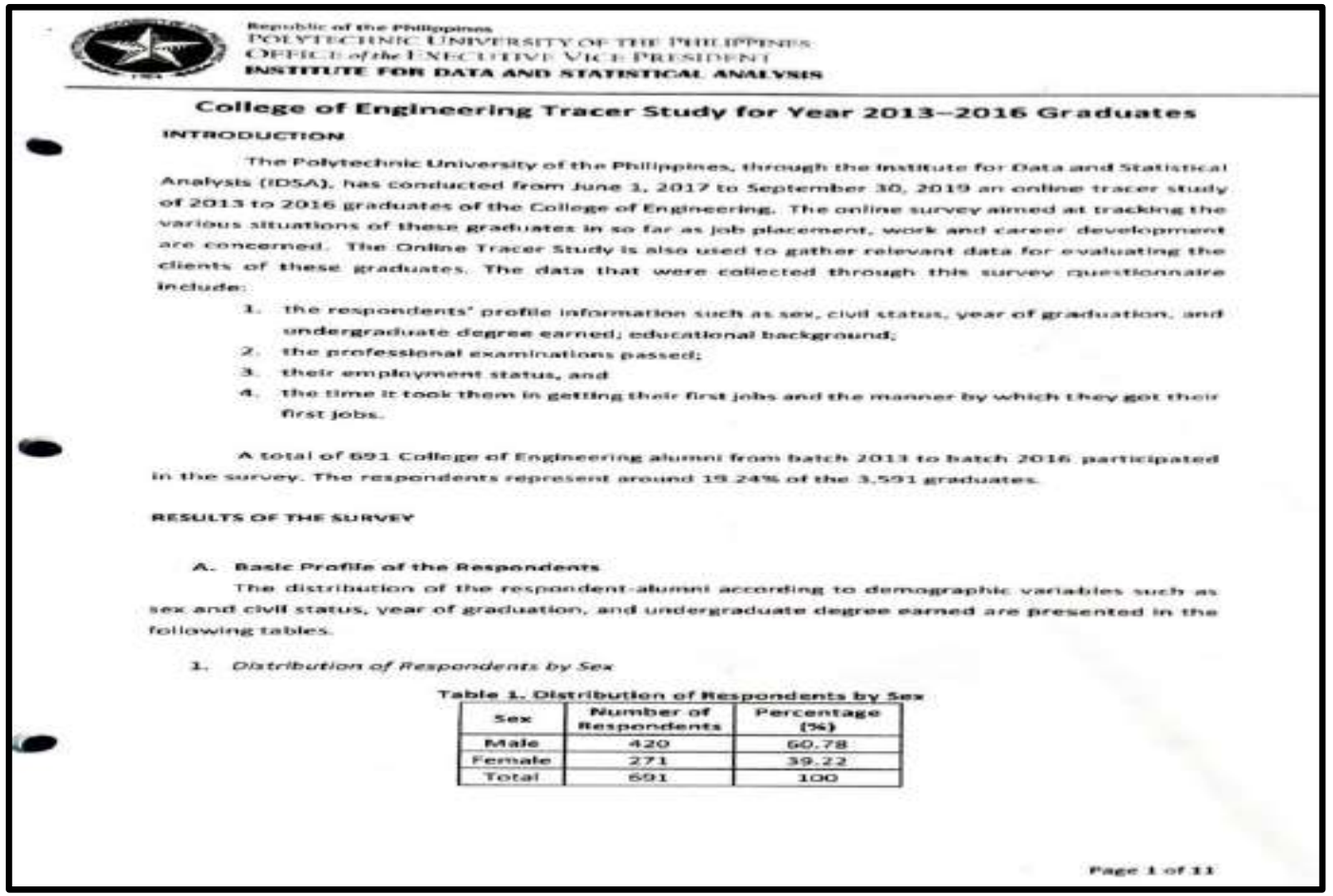

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College of Engineering Tracer Study for Year 2013–2016 Graduates

INTRODUCTION

The Polytechnic University of the Philippines, through the Institute for Data and Statistical Analysis (IDSA), has conducted from June 1, 2017 to September 30, 2019 an online tracer study of 2013 to 2016 graduates of the College of Engineering. The online survey aimed at tracking the various situations of these graduates in so far as job placement, work and career development are concerned. The Online Tracer Study is also used to gather relevant data for evaluating the clients of these graduates. The data that were collected through this survey questionnaire include:

1. the respondents' profile information such as sex, civil status, year of graduation, and undergraduate degree earned; educational background;
2. the professional examinations passed;
3. their employment status, and
4. the time it took them in getting their first jobs and the manner by which they got their first jobs.

A total of 691 College of Engineering alumni from batch 2013 to batch 2016 participated in the survey. The respondents represent around 19.24% of the 3,591 graduates.

RESULTS OF THE SURVEY

A. Basic Profile of the Respondents

The distribution of the respondent-alumni according to demographic variables such as sex and civil status, year of graduation, and undergraduate degree earned are presented in the following tables.

1. *Distribution of Respondents by Sex*

Table 1. Distribution of Respondents by Sex

Sex	Number of Respondents	Percentage (%)
Male	420	60.78
Female	271	39.22
Total	691	100

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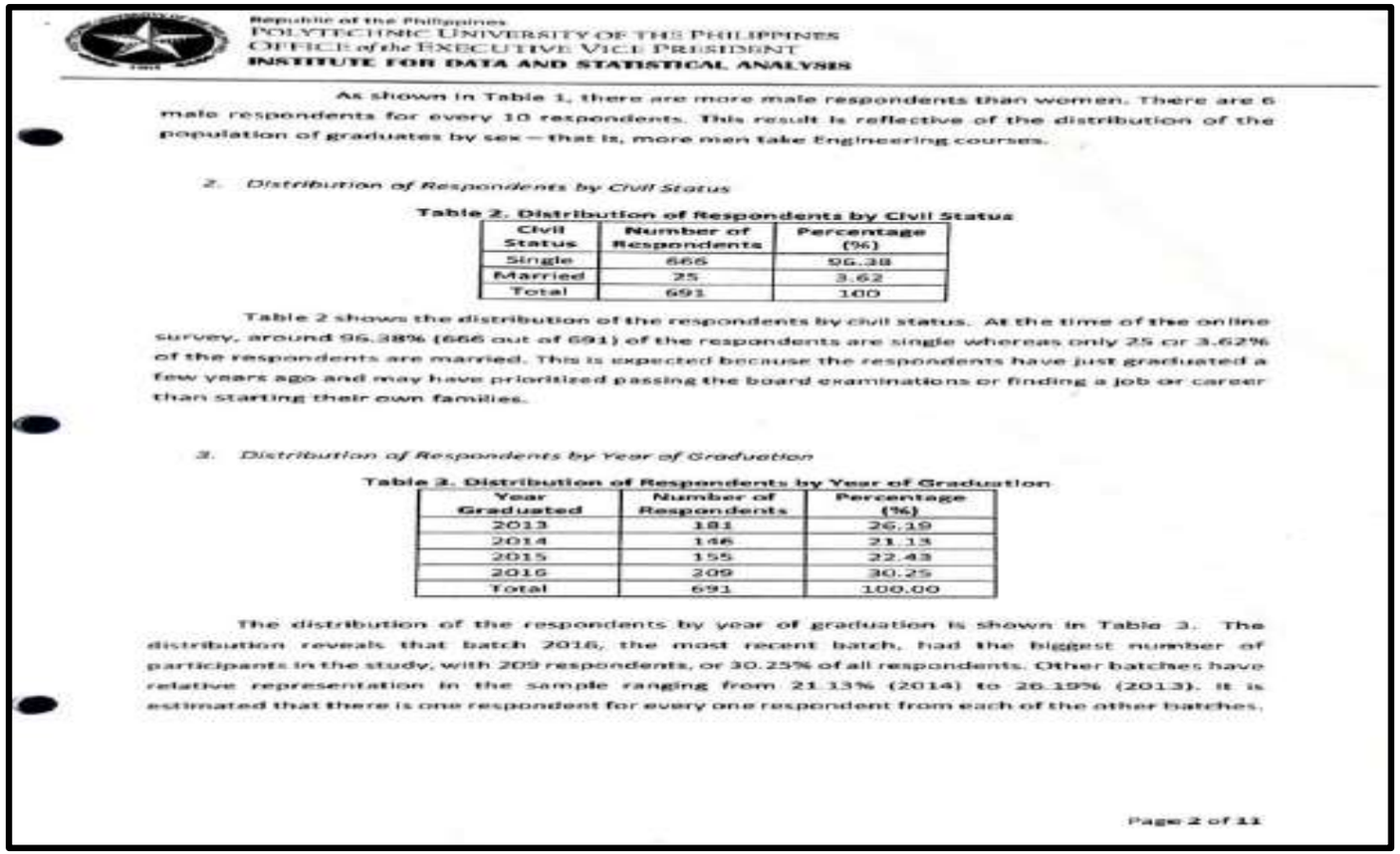

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As shown in Table 1, there are more male respondents than women. There are 6 male respondents for every 10 respondents. This result is reflective of the distribution of the population of graduates by sex — that is, more men take Engineering courses.

2. *Distribution of Respondents by Civil Status*

Table 2. Distribution of Respondents by Civil Status

Civil Status	Number of Respondents	Percentage (%)
Single	665	96.38
Married	25	3.62
Total	691	100

Table 2 shows the distribution of the respondents by civil status. At the time of the online survey, around 96.38% (666 out of 691) of the respondents are single whereas only 25 or 3.62% of the respondents are married. This is expected because the respondents have just graduated a few years ago and may have prioritized passing the board examinations or finding a job or career than starting their own families.

3. *Distribution of Respondents by Year of Graduation*

Table 3. Distribution of Respondents by Year of Graduation

Year Graduated	Number of Respondents	Percentage (%)
2013	181	26.19
2014	146	21.13
2015	155	22.43
2016	209	30.25
Total	691	100.00

The distribution of the respondents by year of graduation is shown in Table 3. The distribution reveals that batch 2016, the most recent batch, had the biggest number of participants in the study, with 209 respondents, or 30.25% of all respondents. Other batches have relative representation in the sample ranging from 21.13% (2014) to 26.19% (2013). It is estimated that there is one respondent for every one respondent from each of the other batches.

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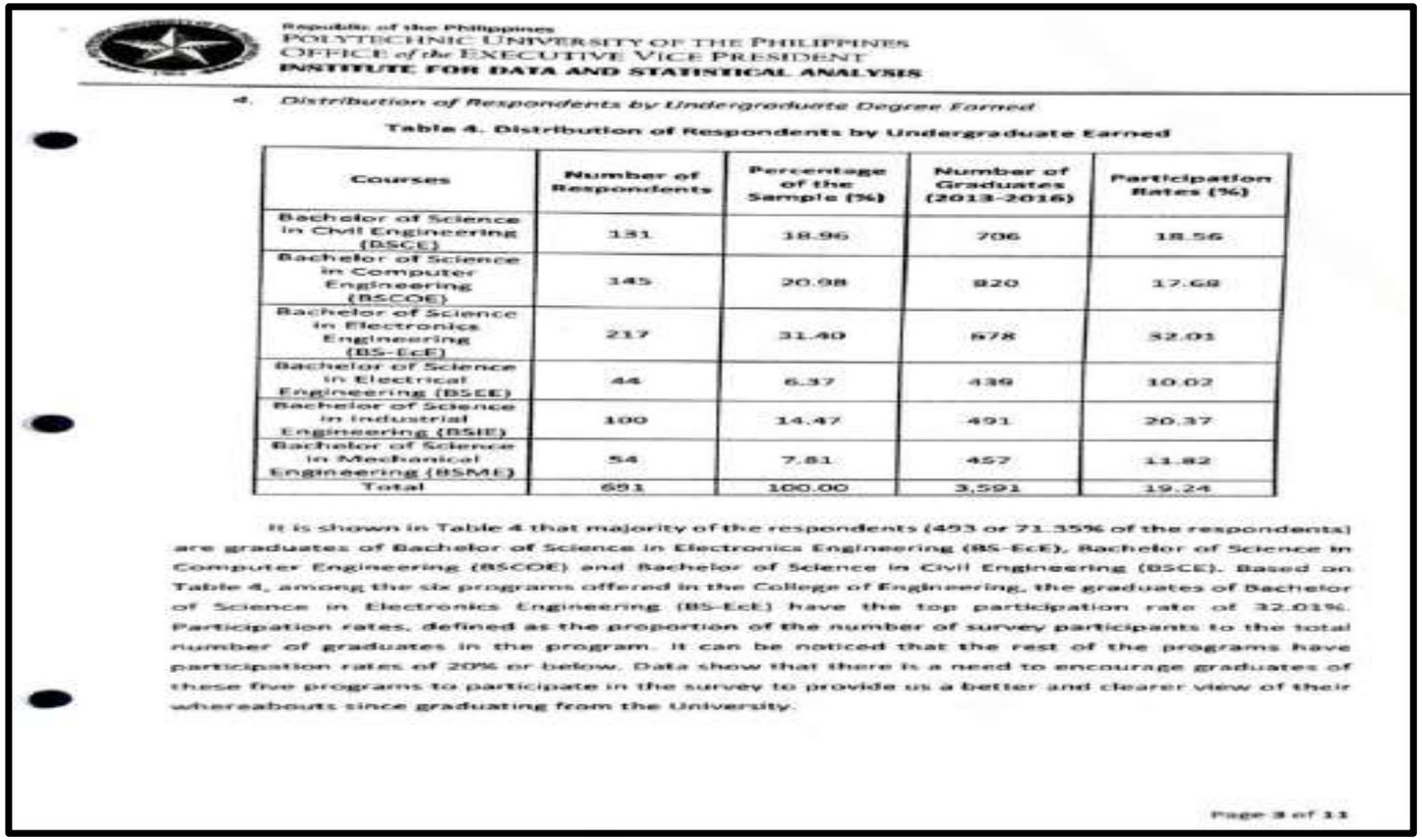

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4. *Distribution of Respondents by Undergraduate Degree Earned*

Table 4. Distribution of Respondents by Undergraduate Earned

Courses	Number of Respondents	Percentage of the Sample (%)	Number of Graduates (2013-2016)	Participation Rates (%)
Bachelor of Science in Civil Engineering (BSCE)	131	18.96	706	18.56
Bachelor of Science in Computer Engineering (BSCOE)	145	20.98	820	17.68
Bachelor of Science in Electronics Engineering (BS-EcE)	217	31.40	678	32.01
Bachelor of Science in Electrical Engineering (BSEE)	44	6.37	439	10.02
Bachelor of Science in Industrial Engineering (BSIE)	100	14.47	491	20.37
Bachelor of Science in Mechanical Engineering (BSME)	54	7.81	457	11.82
Total	691	100.00	3,591	19.24

It is shown in Table 4 that majority of the respondents (493 or 71.35% of the respondents) are graduates of Bachelor of Science in Electronics Engineering (BS-EcE), Bachelor of Science in Computer Engineering (BSCOE) and Bachelor of Science in Civil Engineering (BSCE). Based on Table 4, among the six programs offered in the College of Engineering, the graduates of Bachelor of Science in Electronics Engineering (BS-EcE) have the top participation rate of 32.01%. Participation rates, defined as the proportion of the number of survey participants to the total number of graduates in the program. It can be noticed that the rest of the programs have participation rates of 20% or below. Data show that there is a need to encourage graduates of these five programs to participate in the survey to provide us a better and clearer view of their whereabouts since graduating from the University.

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B. Higher Education, Achievements and Employment Profile of Respondents

The respondent-alumni are further described in the following tables based on their advanced educational achievements, professional examinations passed, employment status, job classification of their first job after graduation, the means by which these respondents found their first job and, lastly, the length of time it took these graduates to land their first job.

5. *Distribution of Respondents by Educational Background:*

Table 5. Distribution of Respondents by Educational Background

Educational Background	Number of Respondents	Percentage (%)
College Degree	637	92.19
With earned units in Master's degree	46	6.66
Master's Degree	7	1.01
With earned units in a Doctorate Degree	1	0.14
Total	691	100

As presented in Table 5, nine-in-every-10, or 92.19%, of the respondents have only completed college or undergraduate degrees at the time of their participation in the survey. Less than ten percent (7.81%) of the respondents have either earned units in post-graduate degrees or have post-graduate degrees at the time of their participation in the survey. These data indicate that most of the PUP College of Engineering graduates are either not yet motivated or not yet ready to pursue graduate studies a few years after graduation. Possibly these graduates would prefer to have a stable job first before enrolling in any graduate program.

6. *Distribution of Respondents by Professional Examinations Passed:*

Table 6a. Distribution of Respondents by Professional Licensure Examination Passed

Professional Examination Passed	Number of Respondents	Percentage (%)
Board examination	366	52.97
CSE Professional Examination	45	6.51
CSE Sub Professional Examination	2	0.29
No Response	263	38.06
Others	15	1.59
Total	691	100

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As shown in Table 6a, more than half of the respondents, or 428 out of 691 respondents have passed either a respective Professional Licensure Examination, Civil Service Eligibility Examination or Professional Skill Certification. This is expected since four of the six degree programs require passing a Professional Licensure Examination to legally practice their profession. The remaining 263 respondents either are not required to pass a Professional Licensure Examination or have not yet taken or did not pass a Professional Licensure Examination. It is good to know that some of our respondents (15 or 1.59% of the respondents) have taken Professional Skills Certification as Industrial Engineers or has certification for other technical skills like CISCO certification. Only 6.80% of the 691 respondents have indicated that they have passed the Civil Service Eligibility Examination which signifies that either only a few are interested in practicing their profession in the public sector or passing a professional licensure examination is creditable as civil service eligibility.

Table 6b. Distribution of Respondents by Degree Programs with Professional Licensure Examination Passed

Courses	Number of Board Passers (2013-2016)	Percentage* (%)
BSCE	111	84.73
BS-ECE	165	76.04
BSEE	41	93.18
BSMC	49	90.74
Total	366	82.06

*Percentages are based from the total number of students in each course that require passing a professional licensure examination.

Based on Table 6b, three hundred sixty-six (366), or 82.06% of the 466 respondents from degree programs with Professional Licensure Examinations have indicated that they have passed the PRC Board Exam for their respective professions. This is a strong indication of the capacity of the University to produce professional engineers.

7. Distribution of Respondents by Employment Status of the Respondents:

Table 7 shows the employment status of the respondent at the time of their participation in the survey. The table shows a very high employment rate of 95.81% (662 out of 691 respondents) are employed. This indicates 19 out of 20 respondents are either employed or self-employed. These statistics indicate that the PUP College of Science graduates are highly employable.

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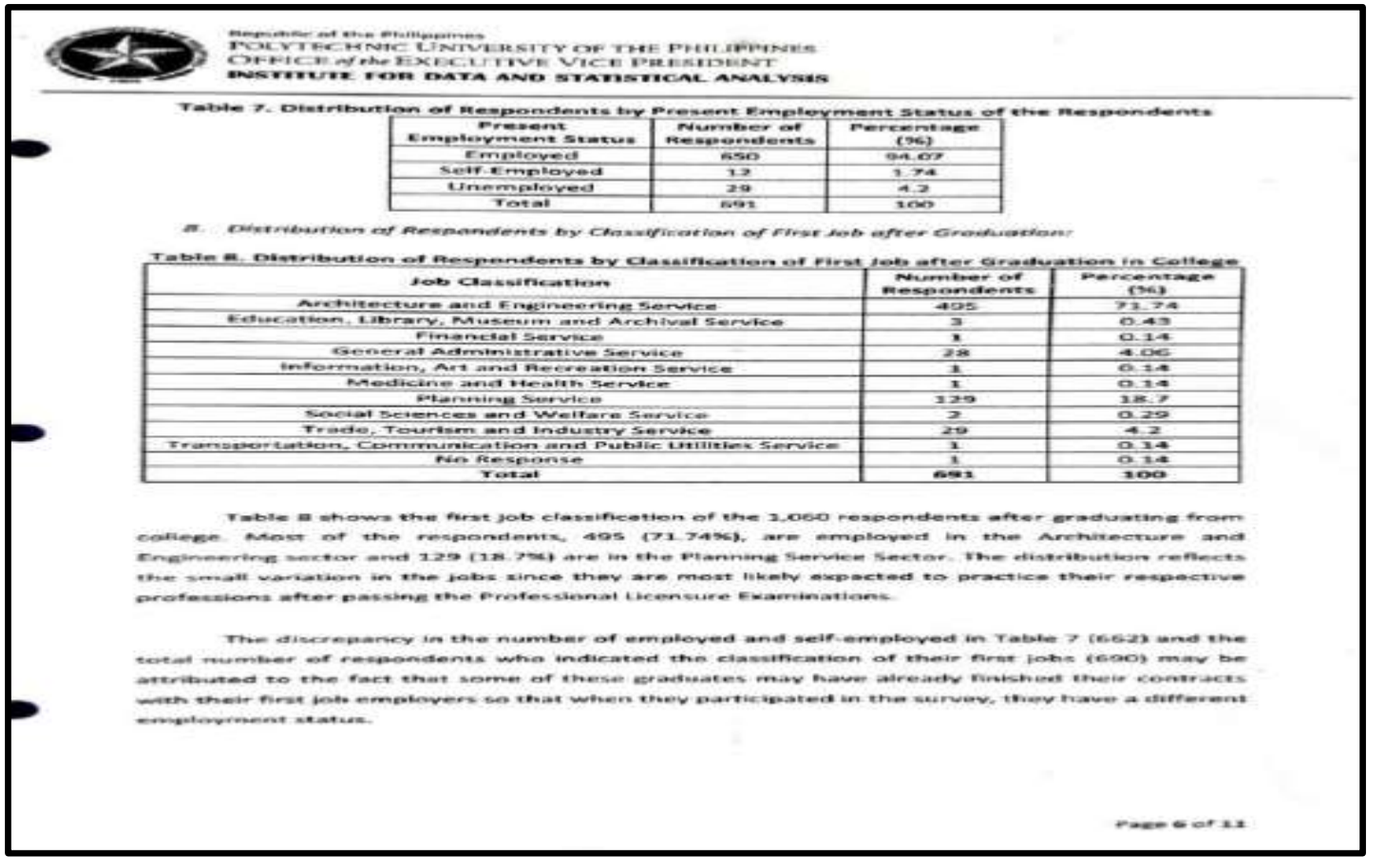

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Table 7. Distribution of Respondents by Present Employment Status of the Respondents

Present Employment Status	Number of Respondents	Percentage (%)
Employed	650	94.07
Self-Employed	12	1.74
Unemployed	29	4.2
Total	691	100

8. Distribution of Respondents by Classification of First Job after Graduation:

Table 8. Distribution of Respondents by Classification of First Job after Graduation in College

Job Classification	Number of Respondents	Percentage (%)
Architecture and Engineering Service	495	71.74
Education, Library, Museum and Archival Service	3	0.43
Financial Service	1	0.14
General Administrative Service	28	4.06
Information, Art and Recreation Service	1	0.14
Medicine and Health Service	1	0.14
Planning Service	129	18.7
Social Sciences and Welfare Service	2	0.29
Trade, Tourism and Industry Service	29	4.2
Transportation, Communication and Public Utilities Service	1	0.14
No Response	1	0.14
Total	**691**	**100**

Table 8 shows the first job classification of the 1,060 respondents after graduating from college. Most of the respondents, 495 (71.74%), are employed in the Architecture and Engineering sector and 129 (18.7%) are in the Planning Service Sector. The distribution reflects the small variation in the jobs since they are most likely expected to practice their respective professions after passing the Professional Licensure Examinations.

The discrepancy in the number of employed and self-employed in Table 7 (662) and the total number of respondents who indicated the classification of their first jobs (690) may be attributed to the fact that some of these graduates may have already finished their contracts with their first job employers so that when they participated in the survey, they have a different employment status.

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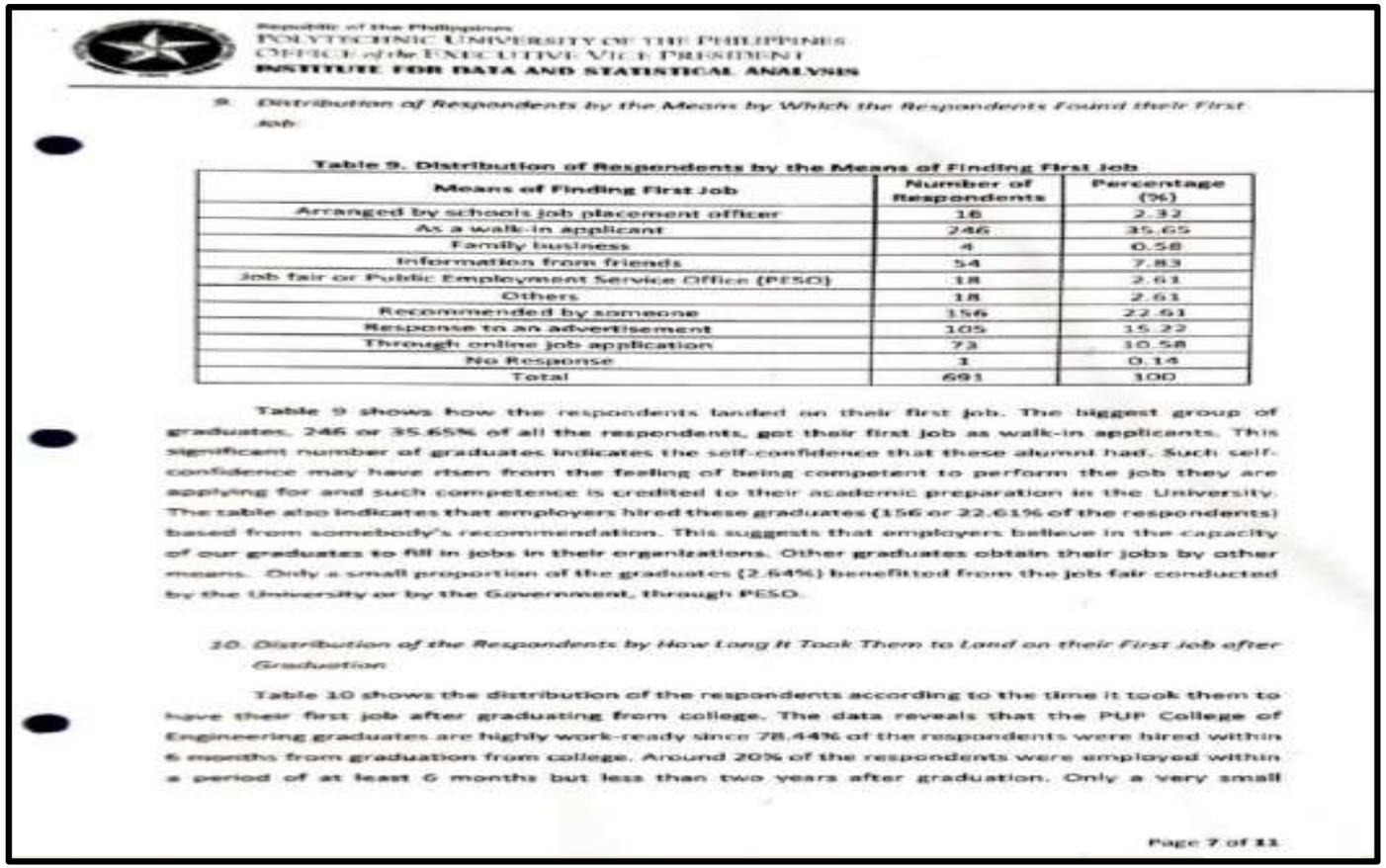

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9. *Distribution of Respondents by the Means by Which the Respondents Found their First Job*

Table 9. Distribution of Respondents by the Means of Finding First Job

Means of Finding First Job	Number of Respondents	Percentage (%)
Arranged by schools job placement officer	16	2.32
As a walk-in applicant	246	35.65
Family business	4	0.58
Information from friends	54	7.83
Job fair or Public Employment Service Office (PESO)	18	2.61
Others	18	2.61
Recommended by someone	156	22.61
Response to an advertisement	105	15.22
Through online job application	73	10.58
No Response	1	0.14
Total	691	100

Table 9 shows how the respondents landed on their first job. The biggest group of graduates, 246 or 35.65% of all the respondents, got their first job as walk-in applicants. This significant number of graduates indicates the self-confidence that these alumni had. Such self-confidence may have risen from the feeling of being competent to perform the job they are applying for and such competence is credited to their academic preparation in the University. The table also indicates that employers hired these graduates (156 or 22.61% of the respondents) based from somebody's recommendation. This suggests that employers believe in the capacity of our graduates to fill in jobs in their organizations. Other graduates obtain their jobs by other means. Only a small proportion of the graduates (2.64%) benefitted from the job fair conducted by the University or by the Government, through PESO.

10. *Distribution of the Respondents by How Long It Took Them to Land on their First Job after Graduation*

Table 10 shows the distribution of the respondents according to the time it took them to have their first job after graduating from college. The data reveals that the PUP College of Engineering graduates are highly work-ready since 78.44% of the respondents were hired within 6 months from graduation from college. Around 20% of the respondents were employed within a period of at least 6 months but less than two years after graduation. Only a very small

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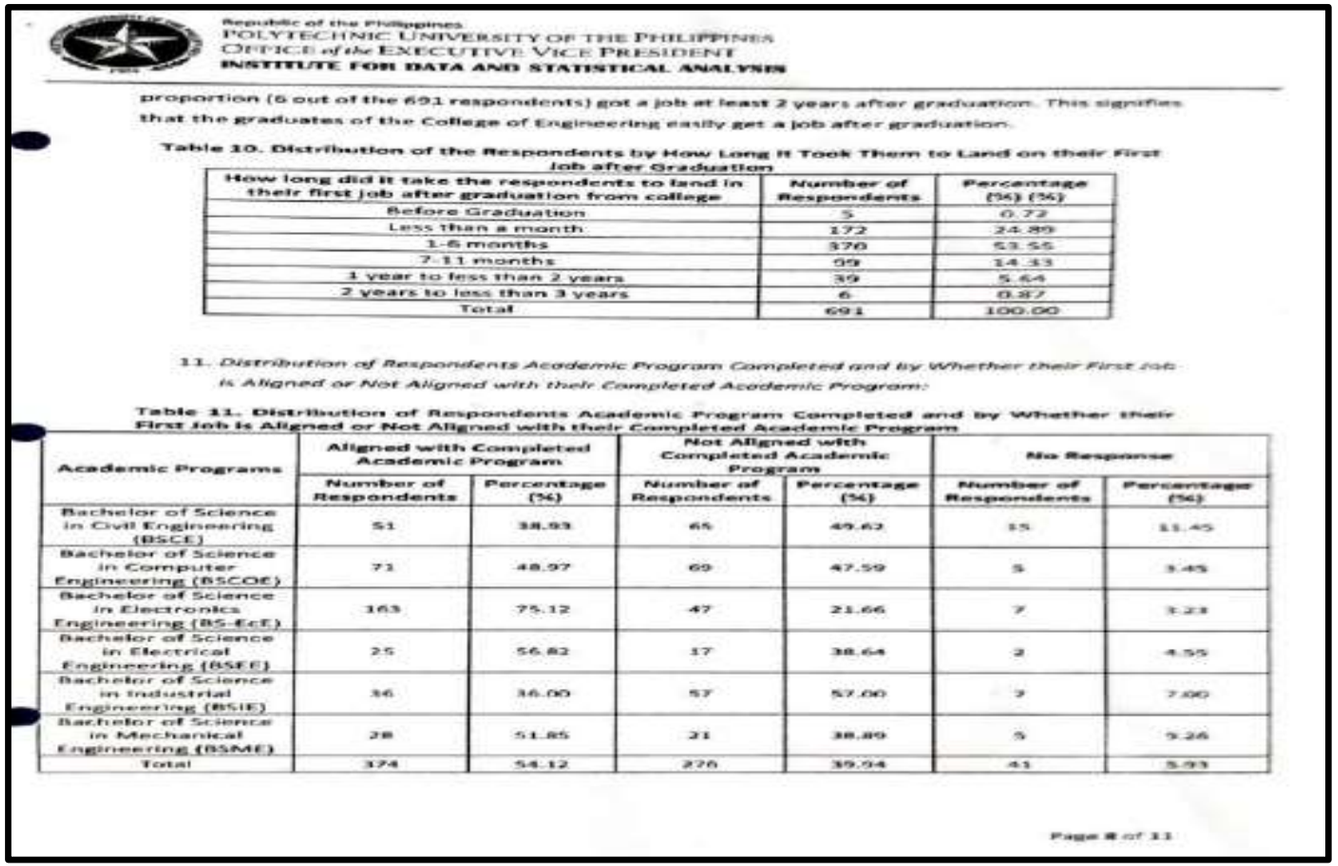

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proportion (6 out of the 691 respondents) got a job at least 2 years after graduation. This signifies that the graduates of the College of Engineering easily get a job after graduation.

Table 10. Distribution of the Respondents by How Long It Took Them to Land on their First Job after Graduation

How long did it take the respondents to land in their first job after graduation from college	Number of Respondents	Percentage (%) (%)
Before Graduation	5	0.72
Less than a month	172	24.89
1-6 months	370	53.55
7-11 months	99	14.33
1 year to less than 2 years	39	5.64
2 years to less than 3 years	6	0.87
Total	691	100.00

11. *Distribution of Respondents Academic Program Completed and by Whether their First Job is Aligned or Not Aligned with their Completed Academic Program:*

Table 11. Distribution of Respondents Academic Program Completed and by Whether their First Job is Aligned or Not Aligned with their Completed Academic Program

Academic Programs	Aligned with Completed Academic Program		Not Aligned with Completed Academic Program		No Response	
	Number of Respondents	Percentage (%)	Number of Respondents	Percentage (%)	Number of Respondents	Percentage (%)
Bachelor of Science in Civil Engineering (BSCE)	51	38.93	65	49.62	15	11.45
Bachelor of Science in Computer Engineering (BSCOE)	71	48.97	69	47.59	5	3.45
Bachelor of Science in Electronics Engineering (BS-ECE)	163	75.12	47	21.66	7	3.23
Bachelor of Science in Electrical Engineering (BSEE)	25	56.82	17	38.64	2	4.55
Bachelor of Science in Industrial Engineering (BSIE)	36	36.00	57	57.00	7	7.00
Bachelor of Science in Mechanical Engineering (BSME)	28	51.85	21	38.89	5	9.26
Total	374	54.12	276	39.94	41	5.93

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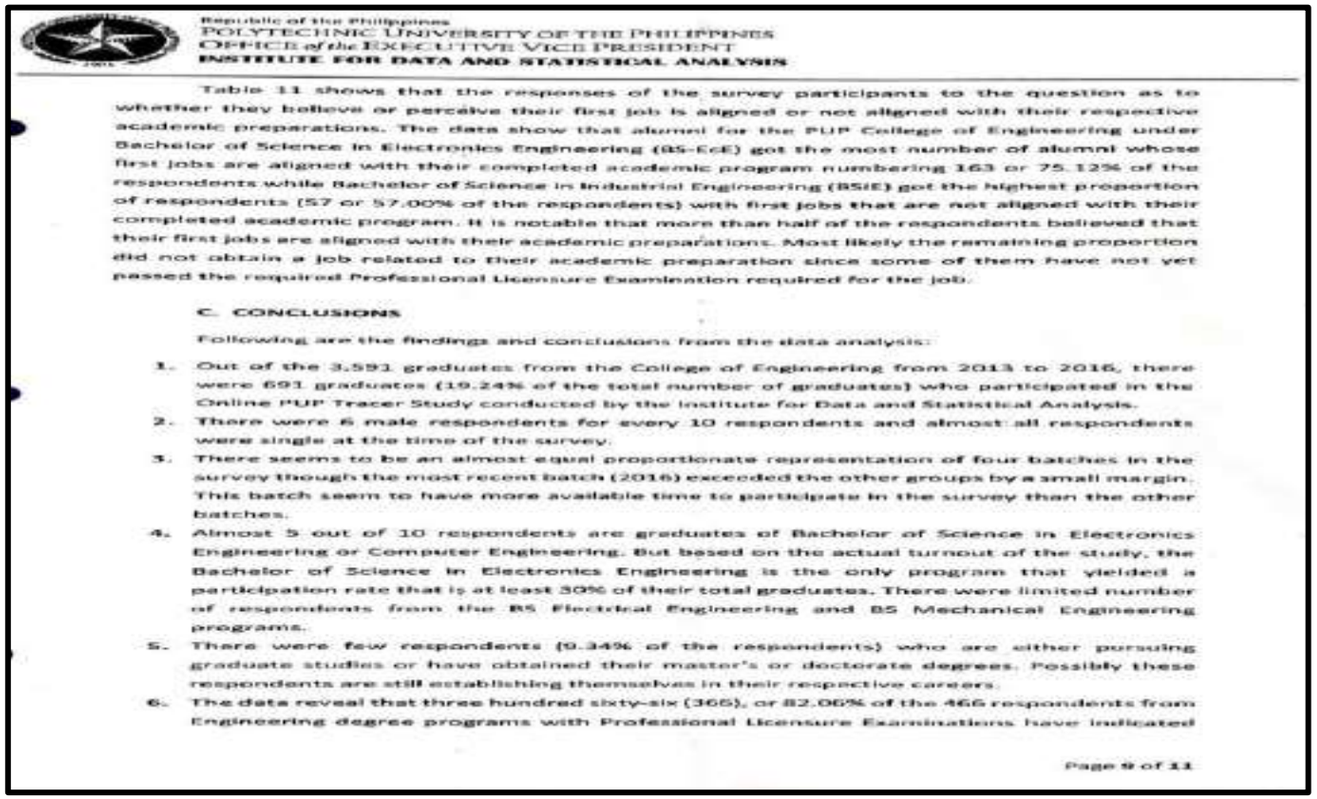

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Table 11 shows that the responses of the survey participants to the question as to whether they believe or perceive their first job is aligned or not aligned with their respective academic preparations. The data show that alumni for the PUP College of Engineering under Bachelor of Science in Electronics Engineering (BS-ECE) got the most number of alumni whose first jobs are aligned with their completed academic program numbering 163 or 75.12% of the respondents while Bachelor of Science in Industrial Engineering (BSIE) got the highest proportion of respondents (57 or 57.00% of the respondents) with first jobs that are not aligned with their completed academic program. It is notable that more than half of the respondents believed that their first jobs are aligned with their academic preparations. Most likely the remaining proportion did not obtain a job related to their academic preparation since some of them have not yet passed the required Professional Licensure Examination required for the job.

C. CONCLUSIONS

Following are the findings and conclusions from the data analysis:

1. Out of the 3,591 graduates from the College of Engineering from 2013 to 2016, there were 691 graduates (19.24% of the total number of graduates) who participated in the Online PUP Tracer Study conducted by the Institute for Data and Statistical Analysis.
2. There were 6 male respondents for every 10 respondents and almost all respondents were single at the time of the survey.
3. There seems to be an almost equal proportionate representation of four batches in the survey though the most recent batch (2016) exceeded the other groups by a small margin. This batch seem to have more available time to participate in the survey than the other batches.
4. Almost 5 out of 10 respondents are graduates of Bachelor of Science in Electronics Engineering or Computer Engineering. But based on the actual turnout of the study, the Bachelor of Science in Electronics Engineering is the only program that yielded a participation rate that is at least 30% of their total graduates. There were limited number of respondents from the BS Electrical Engineering and BS Mechanical Engineering programs.
5. There were few respondents (0.34% of the respondents) who are either pursuing graduate studies or have obtained their master's or doctorate degrees. Possibly these respondents are still establishing themselves in their respective careers.
6. The data reveal that three hundred sixty-six (366), or 82.06% of the 466 respondents from Engineering degree programs with Professional Licensure Examinations have indicated

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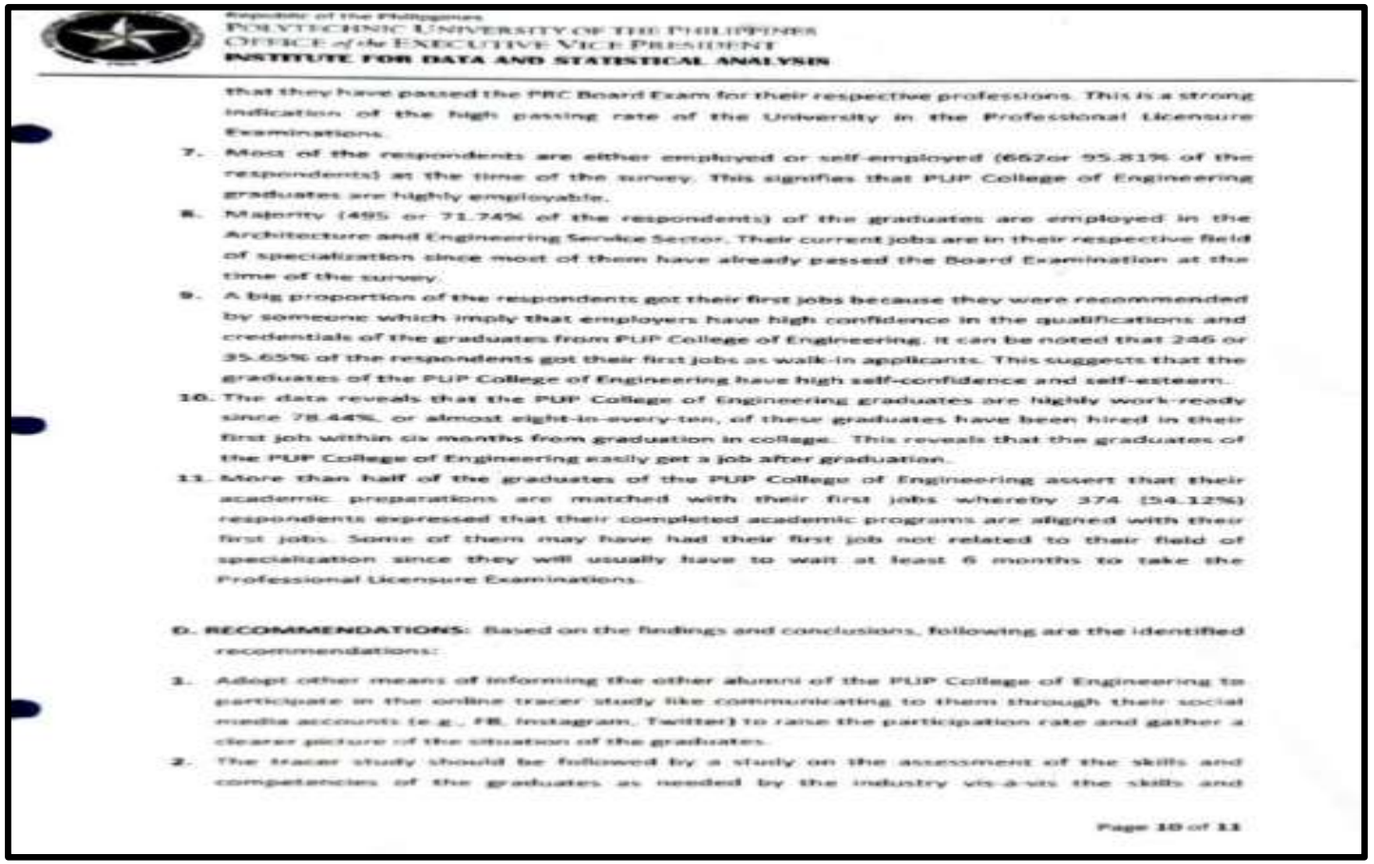

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that they have passed the PRC Board Exam for their respective professions. This is a strong indication of the high passing rate of the University in the Professional Licensure Examinations.

7. Most of the respondents are either employed or self-employed (662or 95.81% of the respondents) at the time of the survey. This signifies that PUP College of Engineering graduates are highly employable.
8. Majority (495 or 71.74% of the respondents) of the graduates are employed in the Architecture and Engineering Service Sector. Their current jobs are in their respective field of specialization since most of them have already passed the Board Examination at the time of the survey.
9. A big proportion of the respondents got their first jobs because they were recommended by someone which imply that employers have high confidence in the qualifications and credentials of the graduates from PUP College of Engineering. It can be noted that 246 or 35.65% of the respondents got their first jobs as walk-in applicants. This suggests that the graduates of the PUP College of Engineering have high self-confidence and self-esteem.
10. The data reveals that the PUP College of Engineering graduates are highly work-ready since 78.44%, or almost eight-in-every-ten, of these graduates have been hired in their first job within six months from graduation in college. This reveals that the graduates of the PUP College of Engineering easily get a job after graduation.
11. More than half of the graduates of the PUP College of Engineering assert that their academic preparations are matched with their first jobs whereby 374 (54.12%) respondents expressed that their completed academic programs are aligned with their first jobs. Some of them may have had their first job not related to their field of specialization since they will usually have to wait at least 6 months to take the Professional Licensure Examinations.

D. RECOMMENDATIONS: Based on the findings and conclusions, following are the identified recommendations:

1. Adopt other means of informing the other alumni of the PUP College of Engineering to participate in the online tracer study like communicating to them through their social media accounts (e.g., FB, Instagram, Twitter) to raise the participation rate and gather a clearer picture of the situation of the graduates.
2. The tracer study should be followed by a study on the assessment of the skills and competencies of the graduates as needed by the industry vis-à-vis the skills and

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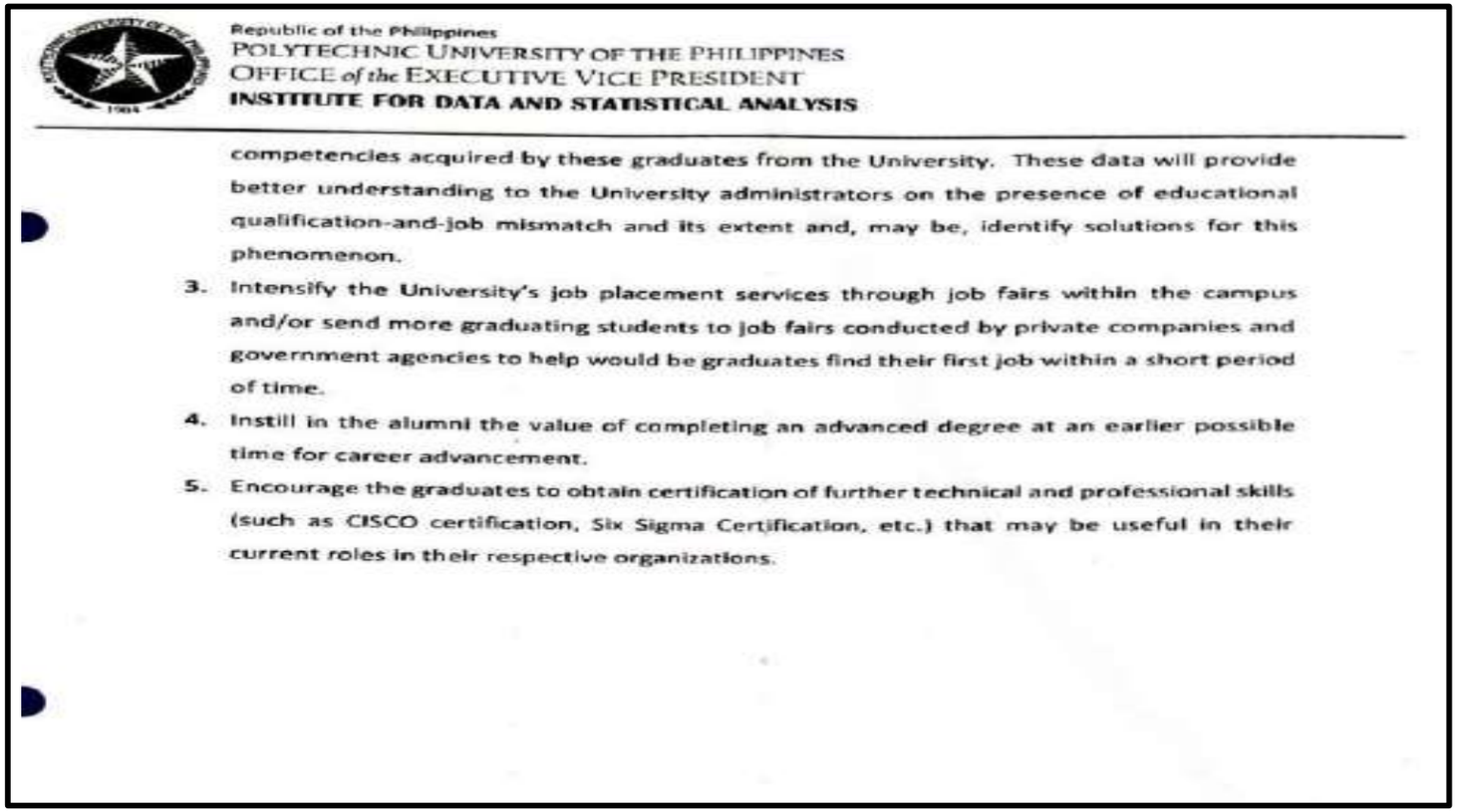

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competencies acquired by these graduates from the University. These data will provide better understanding to the University administrators on the presence of educational qualification-and-job mismatch and its extent and, may be, identify solutions for this phenomenon.

3. Intensify the University's job placement services through job fairs within the campus and/or send more graduating students to job fairs conducted by private companies and government agencies to help would be graduates find their first job within a short period of time.
4. Instill in the alumni the value of completing an advanced degree at an earlier possible time for career advancement.
5. Encourage the graduates to obtain certification of further technical and professional skills (such as CISCO certification, Six Sigma Certification, etc.) that may be useful in their current roles in their respective organizations.

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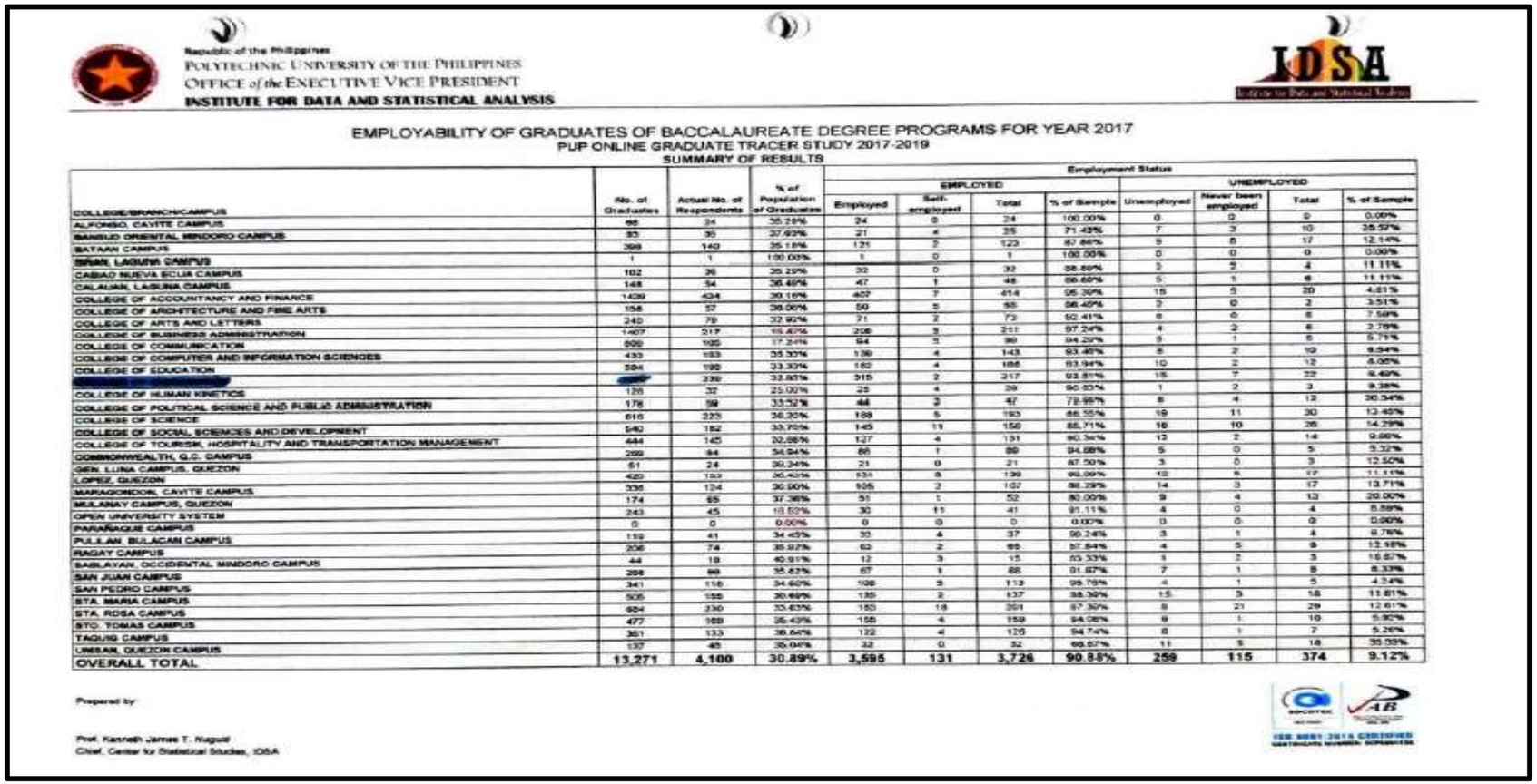

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IDSA

EMPLOYABILITY OF GRADUATES OF BACCALAUREATE DEGREE PROGRAMS FOR YEAR 2017
PUP ONLINE GRADUATE TRACER STUDY 2017-2019
SUMMARY OF RESULTS

COLLEGE/BRANCH/CAMPUS	No. of Graduates	Actual No. of Respondents	% of Population of Graduates	Employment Status							
				EMPLOYED				UNEMPLOYED			
				Employed	Self-employed	Total	% of Sample	Unemployed	Never been employed	Total	% of Sample
ALFONSO, CAVITE CAMPUS	68	24	35.29%	24	0	24	100.00%	0	0	0	0.00%
BANSUD ORIENTAL MINDORO CAMPUS	85	35	37.93%	21	4	25	71.43%	7	3	10	28.57%
BATAAN CAMPUS	399	140	35.18%	121	2	123	87.86%	5	6	17	12.14%
BIÑAN, LAGUNA CAMPUS	1	1	100.00%	1	0	1	100.00%	0	0	0	0.00%
CABIAO NUEVA ECIJA CAMPUS	102	36	35.29%	32	0	32	88.89%	3	1	4	11.11%
CALAUAN, LAGUNA CAMPUS	148	54	36.49%	47	1	48	88.89%	5	1	6	11.11%
COLLEGE OF ACCOUNTANCY AND FINANCE	1439	424	29.46%	407	7	414	95.39%	15	5	20	4.61%
COLLEGE OF ARCHITECTURE AND FINE ARTS	156	57	36.06%	50	5	55	96.49%	2	0	2	3.51%
COLLEGE OF ARTS AND LETTERS	240	79	32.92%	71	2	73	92.41%	6	0	6	7.59%
COLLEGE OF BUSINESS ADMINISTRATION	1407	317	22.53%	208	3	211	97.24%	4	2	6	2.76%
COLLEGE OF COMMUNICATION	600	185	17.24%	84	5	89	94.29%	5	1	6	5.71%
COLLEGE OF COMPUTER AND INFORMATION SCIENCES	433	163	35.30%	139	4	143	93.46%	8	2	10	6.54%
COLLEGE OF EDUCATION	594	198	33.33%	182	4	186	93.94%	10	2	12	6.06%
[redacted]		239	32.85%	315	2	317	93.51%	15	7	22	6.49%
COLLEGE OF HUMAN KINETICS	126	32	25.00%	25	4	29	90.63%	1	2	3	9.38%
COLLEGE OF POLITICAL SCIENCE AND PUBLIC ADMINISTRATION	178	59	33.52%	44	3	47	79.66%	8	4	12	20.34%
COLLEGE OF SCIENCE	616	225	36.20%	188	5	193	85.78%	19	11	30	13.46%
COLLEGE OF SOCIAL SCIENCES AND DEVELOPMENT	540	182	33.70%	145	11	156	85.71%	16	10	26	14.29%
COLLEGE OF TOURISM, HOSPITALITY AND TRANSPORTATION MANAGEMENT	444	145	32.66%	127	4	131	90.34%	12	2	14	9.66%
COMMONWEALTH, Q.C. CAMPUS	269	94	34.94%	88	1	89	94.68%	5	0	5	5.32%
GEN. LUNA CAMPUS, QUEZON	61	24	39.34%	21	0	21	87.50%	3	0	3	12.50%
LOPEZ, QUEZON	420	153	36.43%	131	5	136	88.89%	12	5	17	11.11%
MARAGONDON, CAVITE CAMPUS	336	124	36.90%	105	2	107	86.29%	14	3	17	13.71%
MULANAY CAMPUS, QUEZON	174	65	37.36%	51	1	52	80.00%	9	4	13	20.00%
OPEN UNIVERSITY SYSTEM	243	45	18.52%	30	11	41	91.11%	4	0	4	8.89%
PARAÑAQUE CAMPUS	0	0	0.00%	0	0	0	0.00%	0	0	0	0.00%
PULILAN, BULACAN CAMPUS	159	41	34.45%	33	4	37	90.24%	3	1	4	9.76%
RAGAY CAMPUS	206	74	35.92%	63	2	65	87.84%	4	5	9	12.16%
SABLAYAN, OCCIDENTAL MINDORO CAMPUS	44	18	40.91%	12	3	15	83.33%	1	2	3	16.67%
SAN JUAN CAMPUS	268	90	35.82%	67	1	68	91.67%	7	1	8	8.33%
SAN PEDRO CAMPUS	341	118	34.60%	108	5	113	95.76%	4	1	5	4.24%
STA. MARIA CAMPUS	505	155	30.69%	135	2	137	88.39%	15	3	18	11.61%
STA. ROSA CAMPUS	664	230	33.63%	183	18	201	87.39%	8	21	29	12.61%
STO. TOMAS CAMPUS	477	169	35.43%	155	4	159	94.08%	9	1	10	5.92%
TAGUIG CAMPUS	361	133	36.84%	122	4	126	94.74%	6	1	7	5.26%
URBAN, QUEZON CAMPUS	137	45	32.84%	32	0	32	66.67%	11	5	16	33.33%
OVERALL TOTAL	**13,271**	**4,100**	**30.89%**	**3,595**	**131**	**3,726**	**90.85%**	**259**	**115**	**374**	**9.12%**

Prepared by:

Prof. Kenneth James T. Nuguid
Chief, Center for Statistical Studies, IDSA

CAPTURED SCREENSHOT OF EMPLOYABILITY OF GRADUATES OF BACCALAURETTE DEGREE PROGRAMS FROM PUP-IDSA

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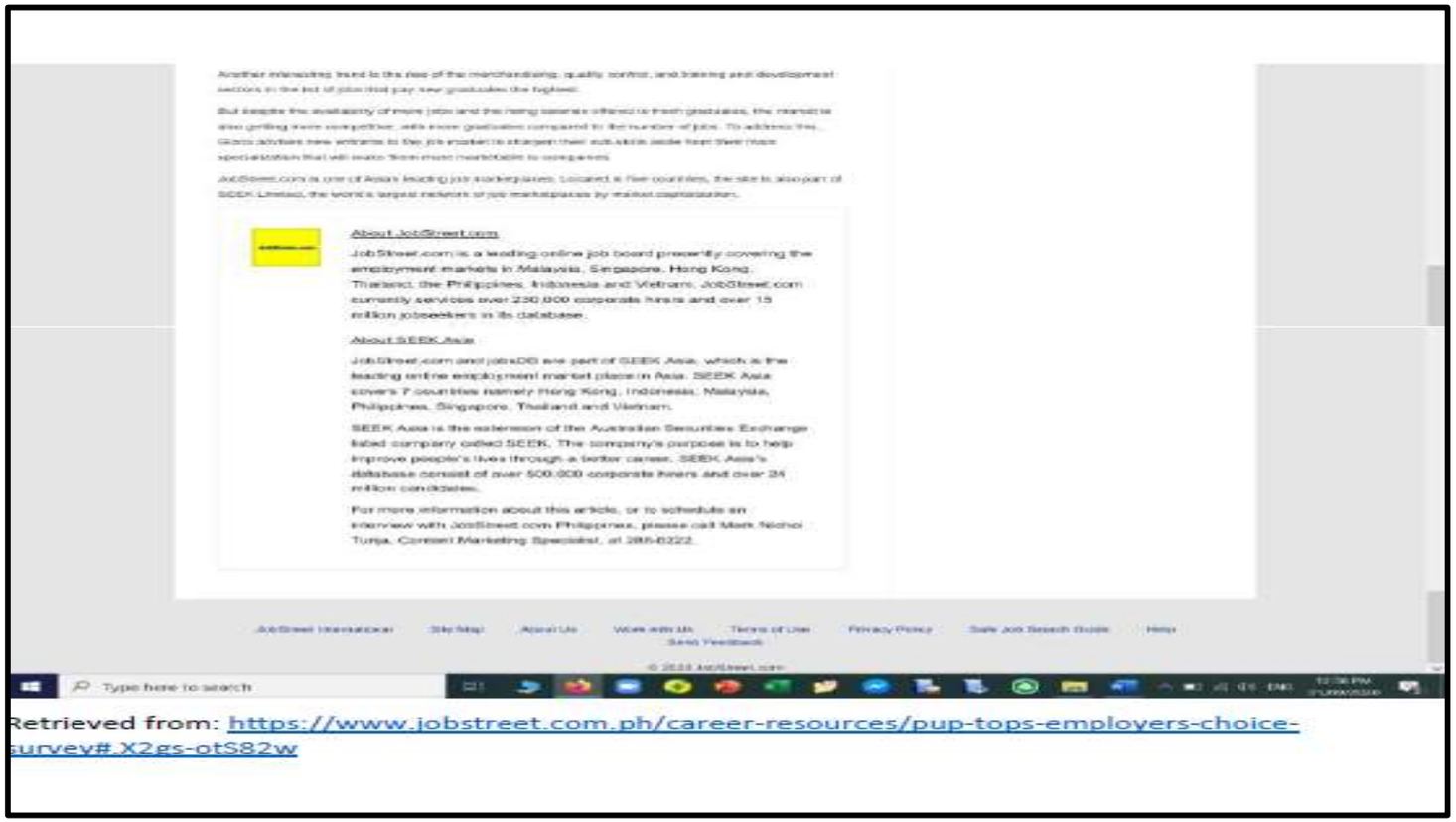

Another interesting trend is the rise of the merchandising, quality control, and training and development sectors in the list of jobs that pay new graduates the highest.

But despite the availability of more jobs and the rising salaries offered to fresh graduates, the market is also getting more competitive, with more graduates compared to the number of jobs. To address this, Glenn advises new entrants to the job market to sharpen their soft skills aside from their more specialization that will make them more marketable to companies.

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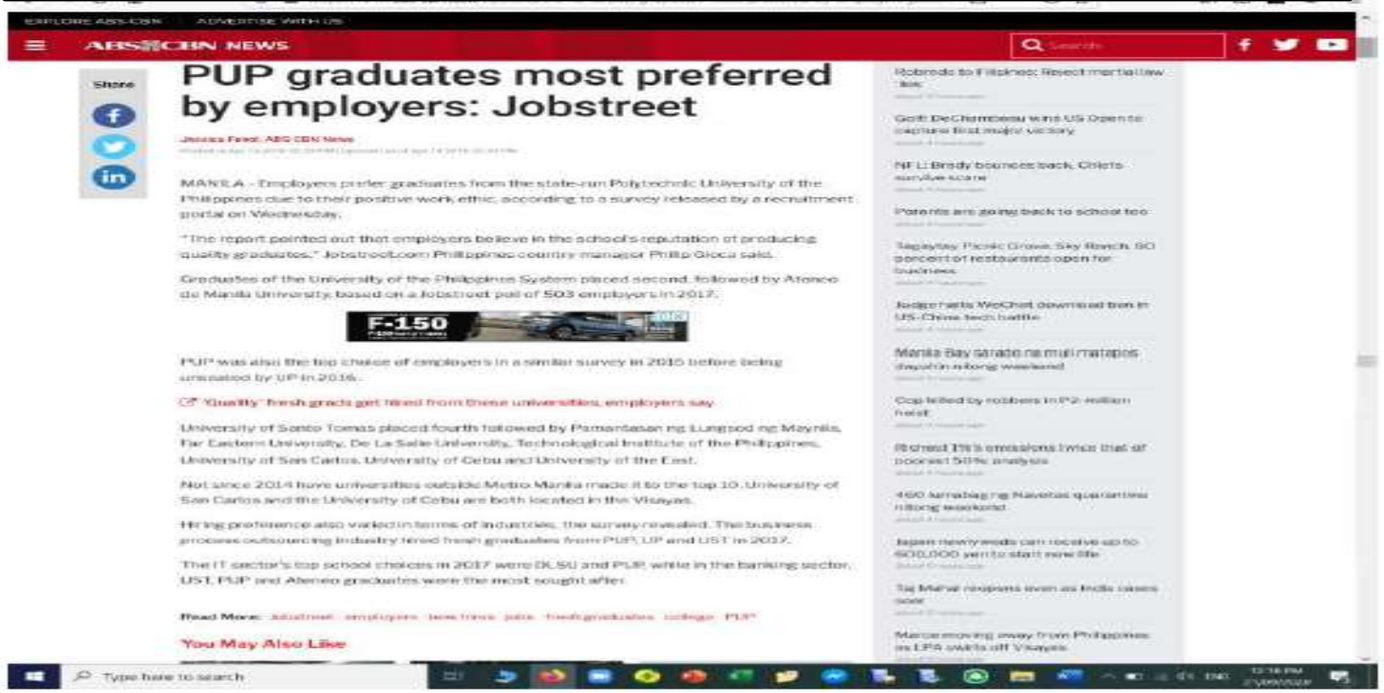

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RECOMMENDATION #7

The faculty members are encouraged to subject their develop IMs to University Textbook and IM Review Committee

EVIDENCE OF COMPLIANCE

- **Copy of the instructional materials cover page produced by the faculty per semester**
- **Copy of memo for financial incentives for instructional materials writers**
- **Copy of an IM produced by CpE Faculty**
- **Copy of memo from President or VPAA for development of IMs.**

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- **Copy of Certification issued by the VPAA (Chairman, Instructional Materials and Management Committee)**

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Republic of the Philippines
POLYTECHNIC UNIVERSITY OF THE PHILIPPINES
Office of the Vice President for Academic Affairs

Memorandum Order
No. 29, Series of 2020

DATE	:	AUGUST 3, 2020
TO	:	ALL DEANS, BRANCH/CAMPUS DIRECTORS DEPARTMENT/ACADEMIC HEADS OUS EXECUTIVE DIRECTOR SHS PRINCIPAL LHS PRINCIPAL FACULTY MEMBERS
SUBJECT	:	GUIDELINES ON THE PREPARATION AND UTILIZATION OF INSTRUCTIONAL MATERIALS

This memorandum is issued to recapitulate and enhance the contents of IMADE designed by our OUS Instructional Materials Development Office which was sent to you as guide in developing instructional materials, and to provide details on every part for further guidance.

- Definition and Descriptions
  - ✓ Instructional Materials (IMs) are teaching or learning materials including resources that teachers utilize to help them achieve desired academic objectives. There are two types of instructional materials that faculty members shall prepare: (1) IMs for online teaching and (2) IMs for offline teaching or what we call the correspondence mode.
  - ✓ Instructional Materials for online teaching may include the use of PowerPoint presentations, videos, vlogs, etc. as these are permissible only with students who have internet connectivity.
  - ✓ Instructional Materials for offline teaching or the correspondence mode are for students without internet connectivity. These IMs shall be reproduced by the University and shall be distributed to the students via courier.

    As teachers will not be with the students to clarify concepts, thorough and comprehensible discussion of lessons in the correspondence mode of instructional materials must be ensured.
- Parts of the Correspondence Type of Instructional Materials
  - ✓ Introduction/Overview = Introduction or overview is a short, attention-grabbing discussion of the core of the entire instructional material, its purpose, and expectations.

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COPY OF MEMO FROM OVPAA ON GUIDELINES ON THE PREPARATION AND UTILIZATION OF INSTRUCTIONAL MATERIALS

- ✓ Table of Contents
- ✓ Course Outcomes – Broad statement of the knowledge, skills, and attitudes that students are expected to develop as a result of academic experience from the specific course of study
- ✓ Learning Outcomes – Specific statement of knowledge, skills, and attitudes that students are expected to develop as a result of academic experience from a specific topic/lesson
- ✓ Course Materials – These are materials that will be provided for students to facilitate and/or demonstrate the learning. Here is where the contents/lessons are discussed.

  Course materials may include list of extended or suggested readings, samples, case studies, etc.
- ✓ Activities/Assessments – This is the part where the learners get to apply the knowledge and skills they have acquired from the lesson.

  Please note that assessment must be well aligned with the intended learning outcomes.
- ✓ Grading System – The grading system for both online and offline teaching shall be modified. While faculty members still can have 70% for class standing and 30% for midterm/final exam, they can limit class standing to portfolio/e-portfolio, projects, case analysis, summative test (long or unit test).

  Attendance, recitation, and oral reports shall no longer be part of the class standing as they are not possible for offline teaching where students will just be receiving the corresponce mode of instructional materials sent to them and will work on the tasks on their own pace.

  Faculty members cannot check the attendance and require recitation or oral report even in their online meetings as not everybody in the class has internet access every time. It will be unfair to the students especially those with limited access to the internet and/or lack technological gadgets if teachers will require them to participate in online meetings. Teachers can just encourage their students to join online sessions because it is an advantage to maximize learning but they cannot require them.
- ✓ References

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Direct Line: 8713-3532/8335-1718|Trunk Line: 335-1787 or 335-1777 local 206
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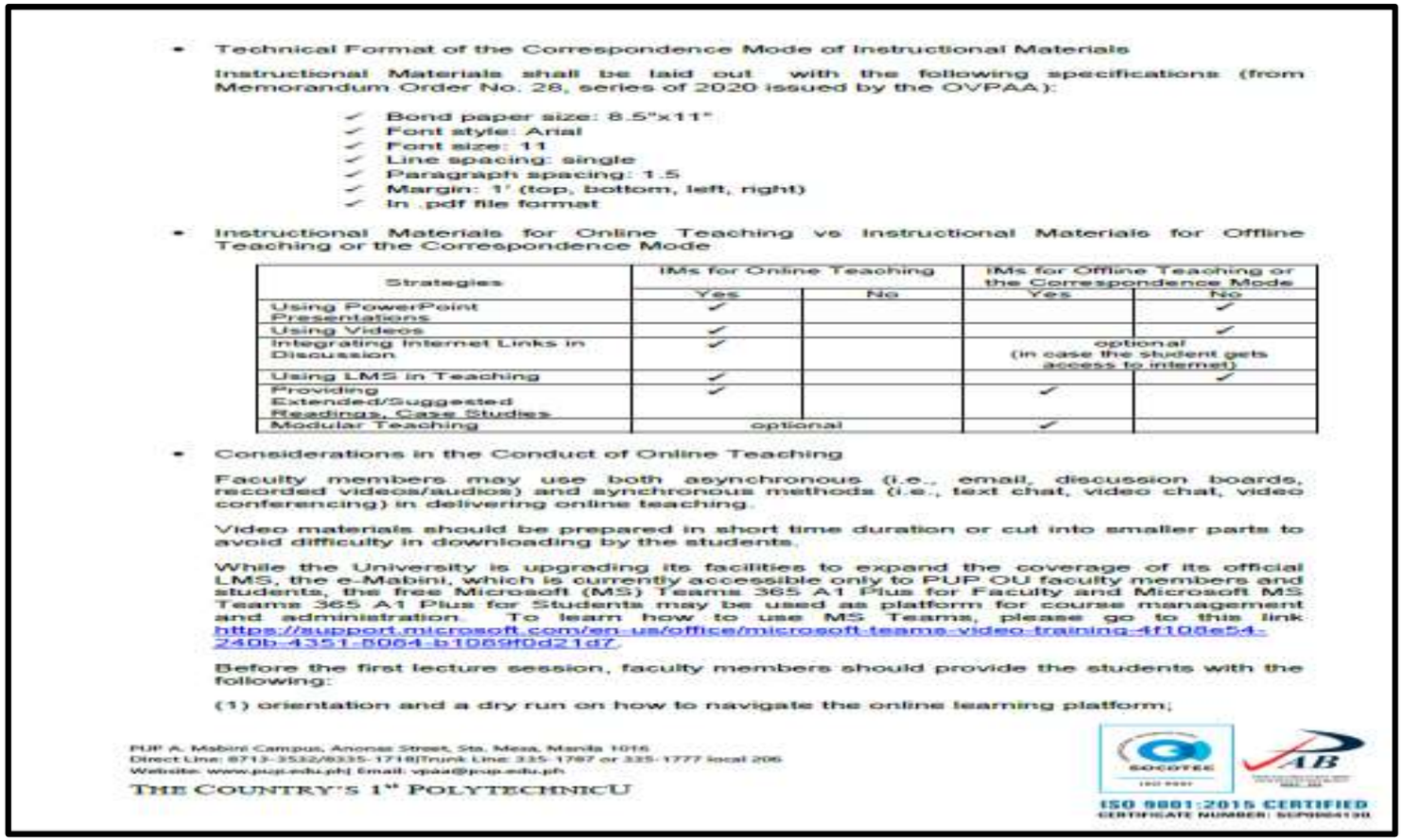
COPY OF MEMO FROM OVPAA ON GUIDELINES ON THE PREPARATION AND UTILIZATION OF INSTRUCTIONAL MATERIALS



- Technical Format of the Correspondence Mode of Instructional Materials

  Instructional Materials shall be laid out with the following specifications (from Memorandum Order No. 28, series of 2020 issued by the OVPAA):

  - ✓ Bond paper size: 8.5"x11"
  - ✓ Font style: Arial
  - ✓ Font size: 11
  - ✓ Line spacing: single
  - ✓ Paragraph spacing: 1.5
  - ✓ Margin: 1" (top, bottom, left, right)
  - ✓ In .pdf file format

- Instructional Materials for Online Teaching vs Instructional Materials for Offline Teaching or the Correspondence Mode

Strategies	IMs for Online Teaching		IMs for Offline Teaching or the Correspondence Mode	
	Yes	No	Yes	No
Using PowerPoint Presentations	✓			✓
Using Videos	✓			✓
Integrating Internet Links in Discussion	✓		optional (in case the student gets access to internet)	
Using LMS in Teaching	✓			✓
Providing Extended/Suggested Readings, Case Studies	✓		✓	
Modular Teaching	optional		✓	

- Considerations in the Conduct of Online Teaching

  Faculty members may use both asynchronous (i.e., email, discussion boards, recorded videos/audios) and synchronous methods (i.e., text chat, video chat, video conferencing) in delivering online teaching.

  Video materials should be prepared in short time duration or cut into smaller parts to avoid difficulty in downloading by the students.

  While the University is upgrading its facilities to expand the coverage of its official LMS, the e-Mabini, which is currently accessible only to PUP OU faculty members and students, the free Microsoft (MS) Teams 365 A1 Plus for Faculty and Microsoft MS Teams 365 A1 Plus for Students may be used as platform for course management and administration. To learn how to use MS Teams, please go to this link https://support.microsoft.com/en-us/office/microsoft-teams-video-training-4f108e54-240b-4351-8004-b1069f0d21d7.

  Before the first lecture session, faculty members should provide the students with the following:

  (1) orientation and a dry run on how to navigate the online learning platform;

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COPY OF MEMO FROM OVPAA ON GUIDELINES ON THE PREPARATION AND UTILIZATION OF INSTRUCTIONAL MATERIALS

(2) virtual classroom rules;
(3) course learning objectives, expectations/outcomes, and content;
(4) course requirements and grading system.

Aside from the video conferencing facility of the MS Teams, faculty members may also use other video conferencing platforms such as zoom, Webex and Google Meet. The University will make available to faculty members, on a limited basis, subscribed zoom accounts to host online class meetings. The ICTO will release a separate set of Guidelines on the use of the PUP-subscribed zoom accounts.

Faculty members may conduct up to six (6) video conferencing lecture sessions with their students per section per course in a semester. Each session may last up to three (3) hours. The limit is set in consideration of the internet or mobile data cost that will be incurred by the students and faculty members. The schedule of these lecture sessions should be announced during the course orientation.

To maximize the use of the limited hours of video conferencing engagement, the faculty member should send the lecture materials to students at least a week before the actual discussion of the lesson either through email or by uploading in the group storage device, or in the LMS itself.

For storage of learning materials to be accessed by the students, the cloud-based Microsoft OneDrive may be used. To learn how to use OneDrive, please go to this link https://support.microsoft.com/en-us/office/onedrive-video-training-1f6085184-b7e6-43ca-8753-2ff879203132.

The Office of the Vice President for Academic Affairs (OVPAA) has formed a committee that will provide orientation to faculty members on the use of the MS Teams and the Zoom Video Conferencing Application. The schedule of the said orientation will be announced by this committee soon.

Please be guided accordingly.

(Sgd)EMANUEL C. DE GUZMAN, PhD
Vice President

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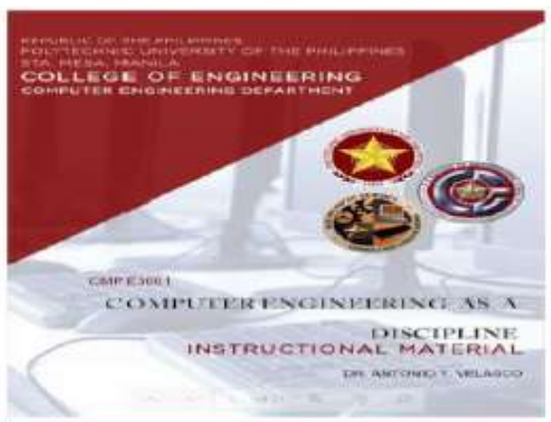
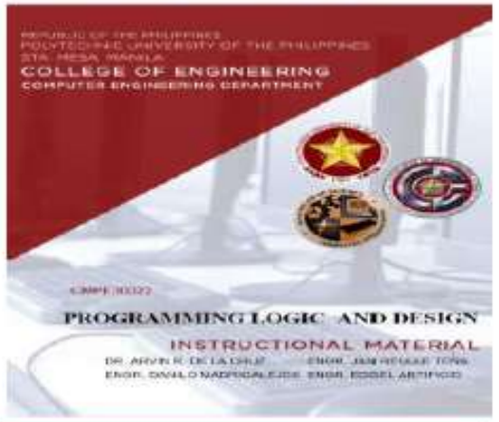
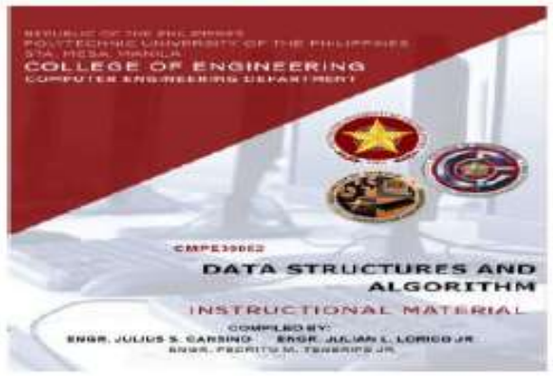
COPY OF MEMO FROM OVPAA ON GUIDELINES ON THE PREPARATION AND UTILIZATION OF INSTRUCTIONAL MATERIALS

LIST OF INSTRUCTIONAL MATERIALS PREPARED BY THE CPE FACULTY FOR 1st SEMESTER, SY 2020-2021







COVER PAGES OF INSTRUCTIONAL MATERIAL DEVELOPED BY THE CPE DEPARTMENT FACULTY

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RM322 CEA BLDG. NDC COMPOUND,
ANONAS COR. PUREZA STREETS, STA. MESA, MANILA

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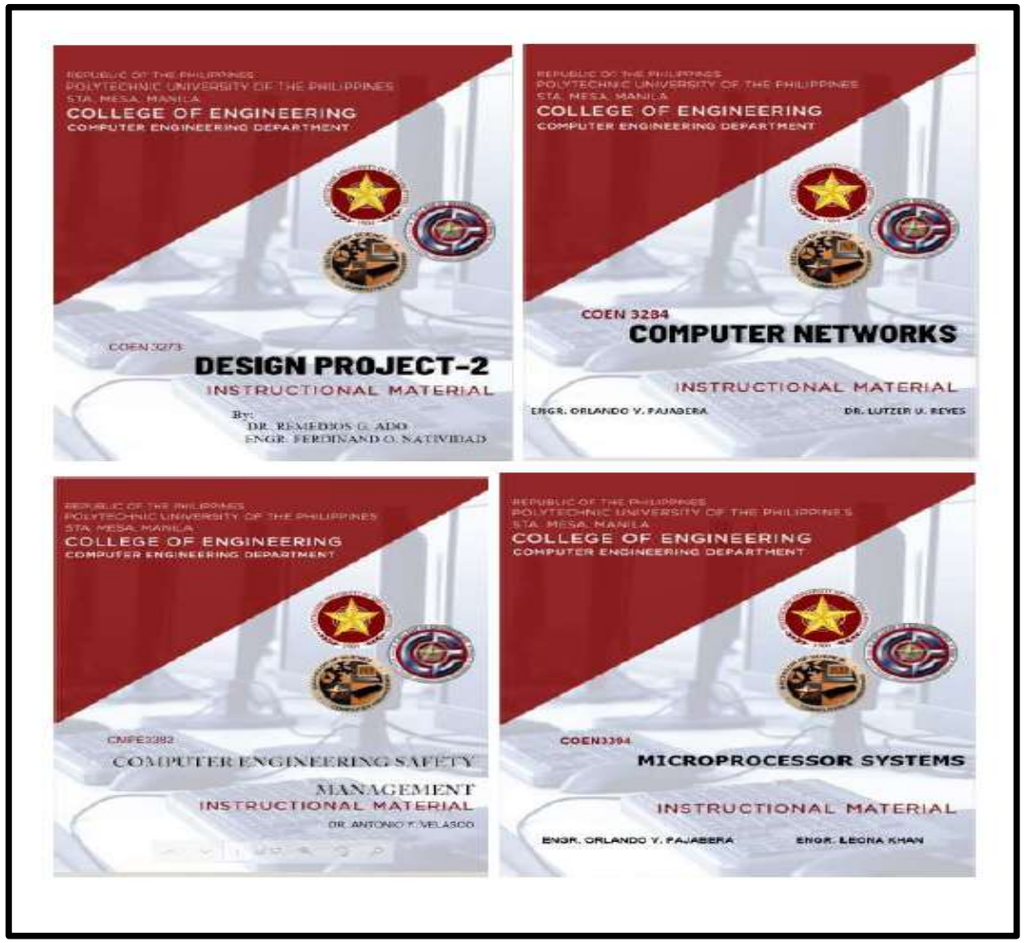

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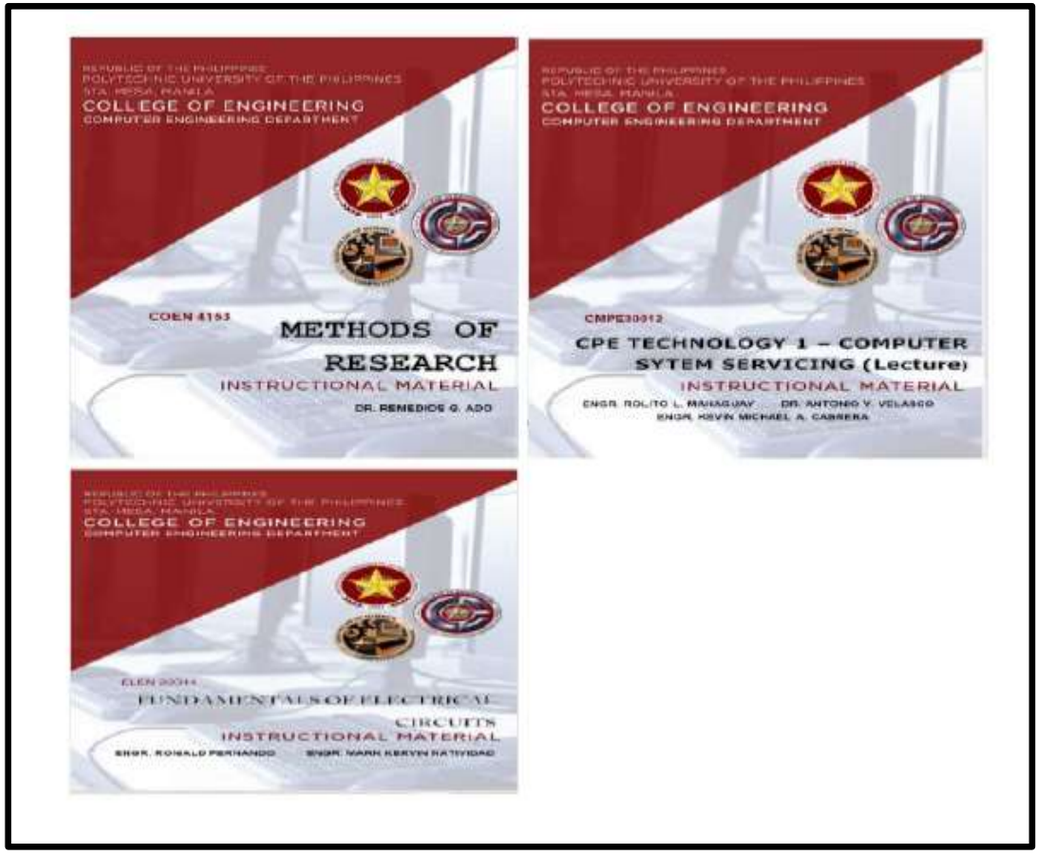

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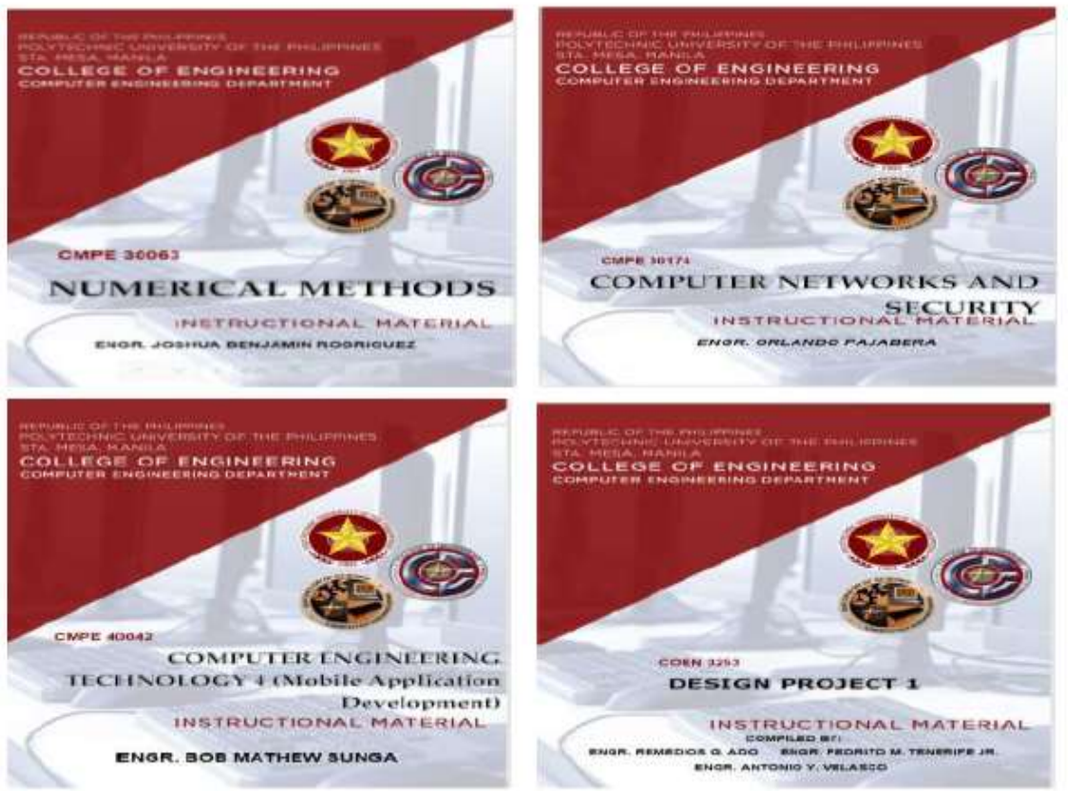
LIST OF INSTRUCTION MATERIALS PRODUCED BY FACULTY OF THE CPE DEPT



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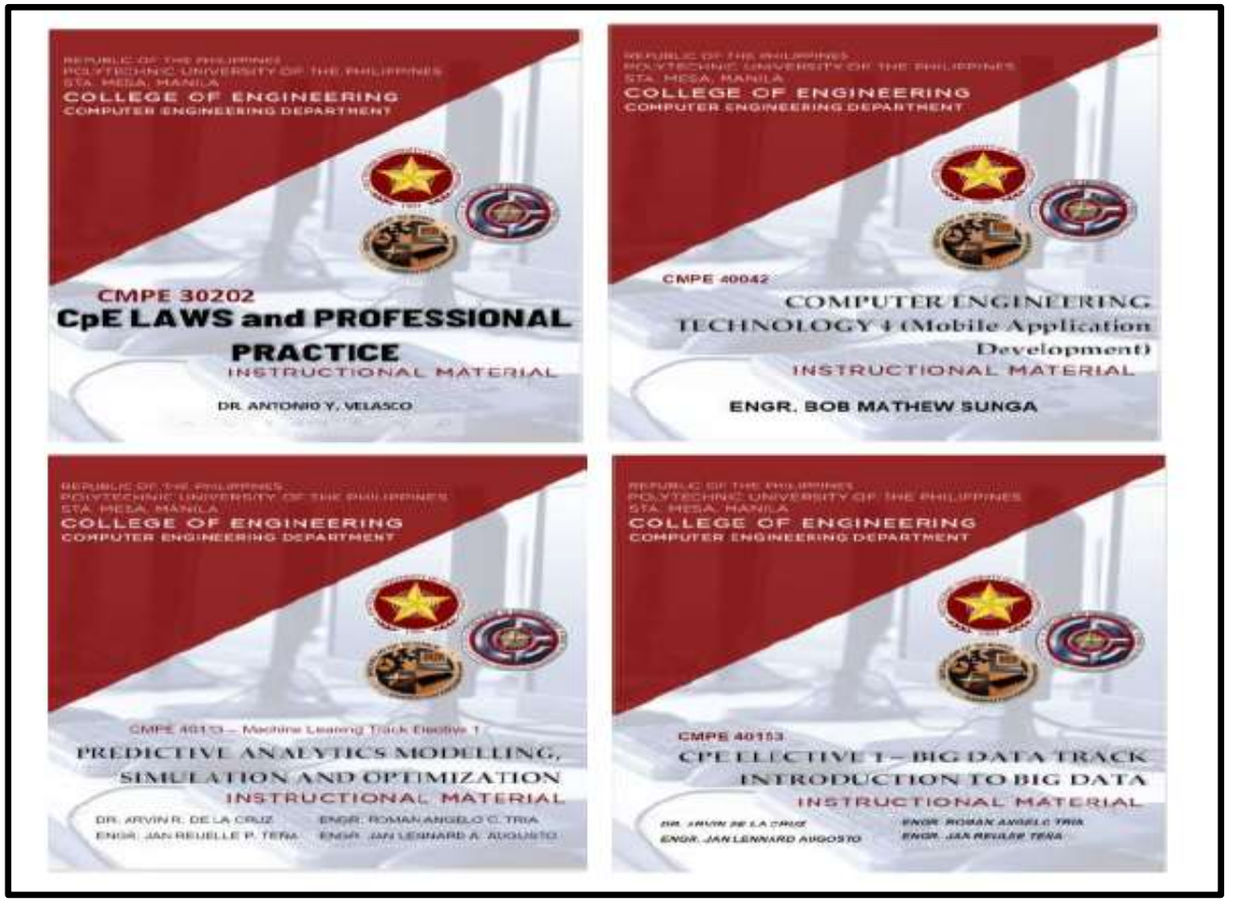

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COVER PAGES OF INSTRUCTIONAL MATERIAL DEVELOPED BY THE CPE DEPARTMENT FACULTY

Republic of the Philippines
POLYTECHNIC UNIVERSITY OF THE PHILIPPINES
OFFICE OF THE PRESIDENT

EXECUTIVE ORDER
No. 22, Series of 2020

TO : ALL CONCERNED

SUBJECT : **GUIDELINES FOR PAYMENT TO PART TIME FACULTY MEMBERS FOR PREPARATION OF INSTRUCTIONAL MATERIALS**

DATE : November 17, 2020

I. BACKGROUND

Following the ban on face-to-face classes due to the coronavirus pandemic, the University adopted the Flexible Technology Enhanced Learning to be implemented beginning SY 2020-2021. The delivery modes of teaching and learning are online mode and correspondence mode.

To comply with the requirements of the Flexible Technology Enhanced Learning, the University directed all its regular faculty members to prepare instructional materials (IMs) for distribution to students who will choose correspondence mode. These instructional materials will be sent by PUP via its official courier (in the case of Main Campus) and via the respective barangays (in the case of branches and satellite campuses). Considering the urgency of the need and due to very limited time to prepare the materials before the school year opens, the University needs to engage the services of part time faculty members who are experts on the subject/course.

Their final output shall be submitted to the Department Chairperson and the college Dean for review before submission to the Instructional Materials Production and Distribution Management Committee for evaluation. If the same complied with the prescribed format and once approved, the instructional material shall become University property and are added to the list of published materials of the University.

II. GUIDELINES AND CONDITIONS FOR PAYMENT TO PART TIME FACULTY MEMBERS FOR PREPARATION OF INSTRUCTIONAL MATERIALS

This Guideline shall be subject to availability of funds and the provisions set for in CSC-COA-DBM Joint Circular No. 1, s. 2017 - Rules and Regulations Governing Contract of Service and Job Order Workers in the Government, as amended and all pertinent accounting and auditing guidelines.

Part time faculty members shall be hired on a job order basis to prepare instructional material for specific subject/course. The contract amount for every instructional material shall be Ten Thousand Pesos (PhP10, 000).

[illegible] Floor South Wing PUP A. Mabini Campus Anonas Street, Sta. Mesa, Manila
Phone: [illegible] Telefax: [illegible] Local [illegible]
website: [illegible] | e-mail: [illegible]

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Payment for every piece of work shall be subject to the following conditions:

1. The Part Time Faculty Member shall be willing to enter a Job Order Contract with the University and undertake that the work submitted:
   a. is original and no part of the instructional material was taken from or based on any other literary, dramatic, musical, film, or graphic arts, except as identified in the writing by the Author;
   b. does not infringe upon any copyright, privacy rights, rights of a third party, or any law and does not contain any material of a libelous or obscene nature;
   c. is not the public domain, and has not been published in any format with any University or any publisher that may still own such rights to the work; and
   d. to the best of Author's knowledge and belief, all statements of fact contained in the work are true and based on appropriate and diligent research.
2. Author agrees to deliver to the University, thru channels (Chairperson, Deans or Branch/Campus Director) a complete electronic text of the work in Word Format and Portable Document Format (PDF) on the deadline set by the College/Branch.
3. Author (Part Time Faculty Member) agrees to hold PUP harmless and indemnify PUP against any claim, demand, action, suit, proceeding or any expense whatsoever, arising for claims of infringement of copyright or proprietary rights, or claims of libel, obscenity, invasion of privacy, or any other unlawfulness based upon or arising from the publication of the submitted Instructional Material or any matter pertaining to the submitted work.
4. Copyright to the work shall belong to the University and all subsidiary and derivative rights and PUP shall have the right to make changes in, additions to, or eliminations from the draft submitted by the Faculty member. Changes may include sentence re-writes, grammatical and mechanical changes, reorganization of paragraphs, chapters, and images (photos, art, charts, graphics, or any non-text elements), correction of typographical errors and punctuation, and any other changes to the work.

III. **LIMITATIONS**

1. Part time Faculty Members who are employed in other government agencies must submit authority to practice profession in accordance with the limitations set under the Civil Service Law and R.A 6713.
2. If there are two or more authors, the amount of PhP 10, 000 shall be divided equally among all the authors. If one of the authors is a regular faculty member, his/her share shall not be paid.

[illegible] Floor South Wing PUP A. Mabini Campus Anonas Street, Sta. Mesa, Manila
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website: www.pup.edu.ph | e-mail: [illegible]

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3. Part time faculty members may only claim payment for a maximum of three (3) instructional materials whether as sole author or as co-author.

IV. SOURCE OF FUND

Payment of services shall be charged against the Special Trust Fund/General Fund- Maintenance and Other Operating Expense.

V. EFFECTIVITY

These internal guidelines shall take effect on October 23, 2020 upon the approval of PUP Board of Regents.

(Sgd.) MANUEL M. MUHI, DTech, ASEAN Engr.
President

2nd floor South Wing PUP A. Mabini Campus Anonas Street, Sta. Mesa, Manila
Phone: (Direct Line) 8716-2644; Telefax: 8714-1143 (Trunk Line) 5335-1777/178 (Local 301/302/658/659
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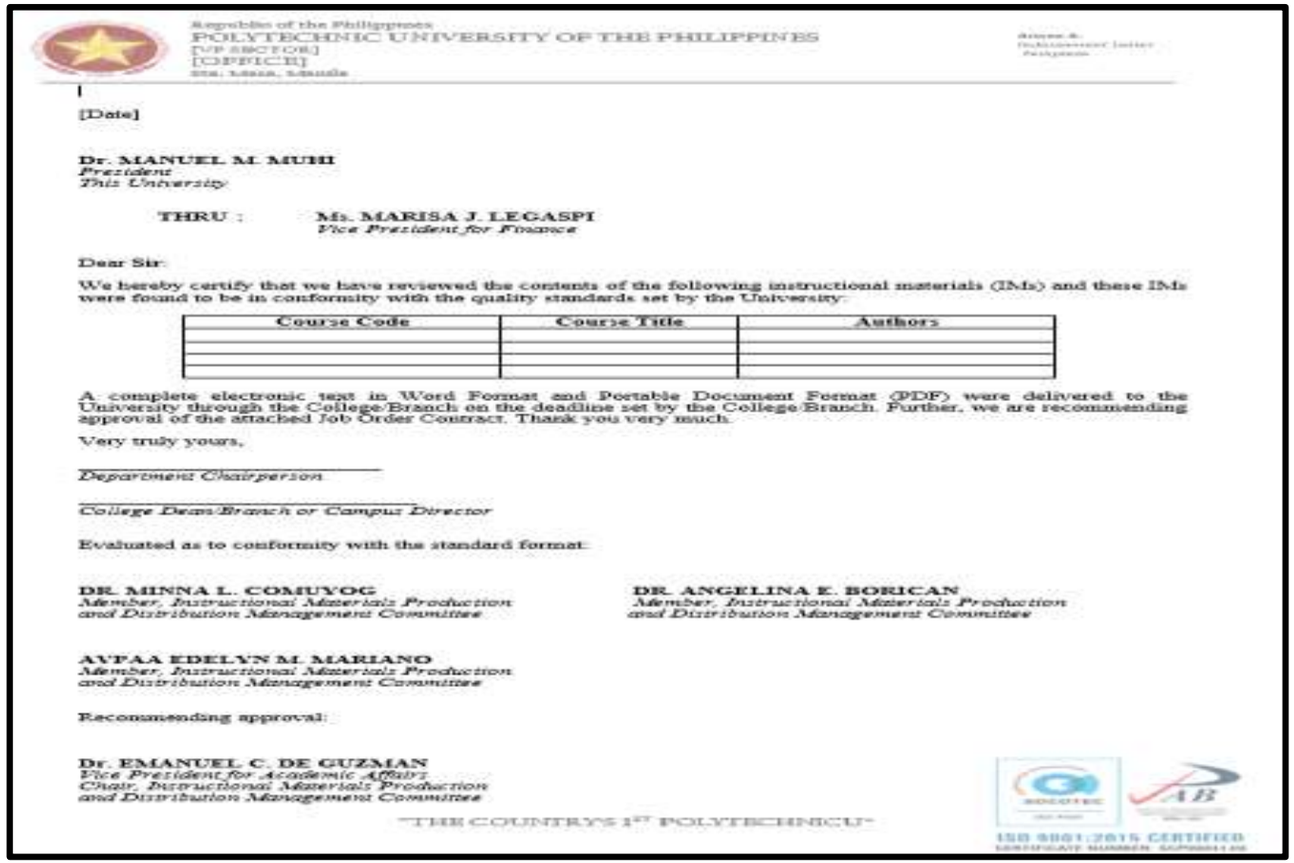

Republic of the Philippines
POLYTECHNIC UNIVERSITY OF THE PHILIPPINES
[VP ABCTFOR]
[OFFICE]
Sta. Mesa, Manila

[Date]

Dr. MANUEL M. MUHI
President
This University

THRU : **Ms. MARISA J. LEGASPI**
Vice President for Finance

Dear Sir:

We hereby certify that we have reviewed the contents of the following instructional materials (IMs) and these IMs were found to be in conformity with the quality standards set by the University:

Course Code	Course Title	Authors

A complete electronic text in Word Format and Portable Document Format (PDF) were delivered to the University through the College/Branch on the deadline set by the College/Branch. Further, we are recommending approval of the attached Job Order Contract. Thank you very much.

Very truly yours,

Department Chairperson

College Dean/Branch or Campus Director

Evaluated as to conformity with the standard format:

DR. MINNA L. COMUYOG
Member, Instructional Materials Production and Distribution Management Committee

DR. ANGELINA E. BORICAN
Member, Instructional Materials Production and Distribution Management Committee

AVPAA EDELYN M. MARIANO
Member, Instructional Materials Production and Distribution Management Committee

Recommending approval:

Dr. EMANUEL C. DE GUZMAN
Vice President for Academic Affairs
Chair, Instructional Materials Production and Distribution Management Committee

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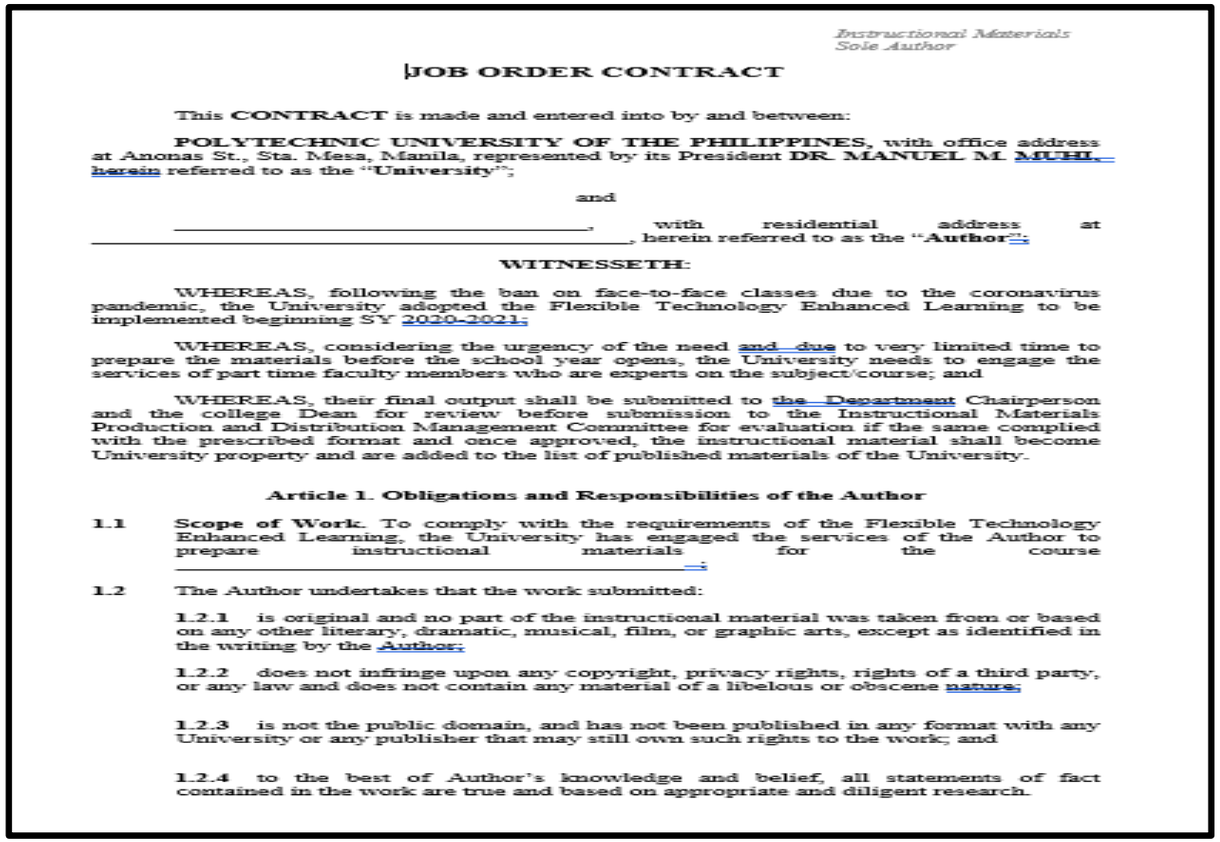
COPY OF ENDORSEMENT LETTER TEMPLATE FOR PAYMENT TO PART-TIME FACULTY MEMBERS FOR PREPARATION OF INSTRUCTIONAL MATERIALS



Instructional Materials
Sole Author

JOB ORDER CONTRACT

This **CONTRACT** is made and entered into by and between:

POLYTECHNIC UNIVERSITY OF THE PHILIPPINES, with office address at Anonas St., Sta. Mesa, Manila, represented by its President **DR. MANUEL M. MUHI,** ~~herein~~ referred to as the "**University**";

and

_____, with residential address at _____, herein referred to as the "**Author**";

WITNESSETH:

WHEREAS, following the ban on face-to-face classes due to the coronavirus pandemic, the University adopted the Flexible Technology Enhanced Learning to be implemented beginning SY 2020-2021;

WHEREAS, considering the urgency of the need ~~and due~~ to very limited time to prepare the materials before the school year opens, the University needs to engage the services of part time faculty members who are experts on the subject/course; and

WHEREAS, their final output shall be submitted to ~~the Department~~ Chairperson and the college Dean for review before submission to the Instructional Materials Production and Distribution Management Committee for evaluation if the same complied with the prescribed format and once approved, the instructional material shall become University property and are added to the list of published materials of the University.

Article 1. Obligations and Responsibilities of the Author

1.1 **Scope of Work**. To comply with the requirements of the Flexible Technology Enhanced Learning, the University has engaged the services of the Author to prepare instructional materials for the course _____;

1.2 The Author undertakes that the work submitted:

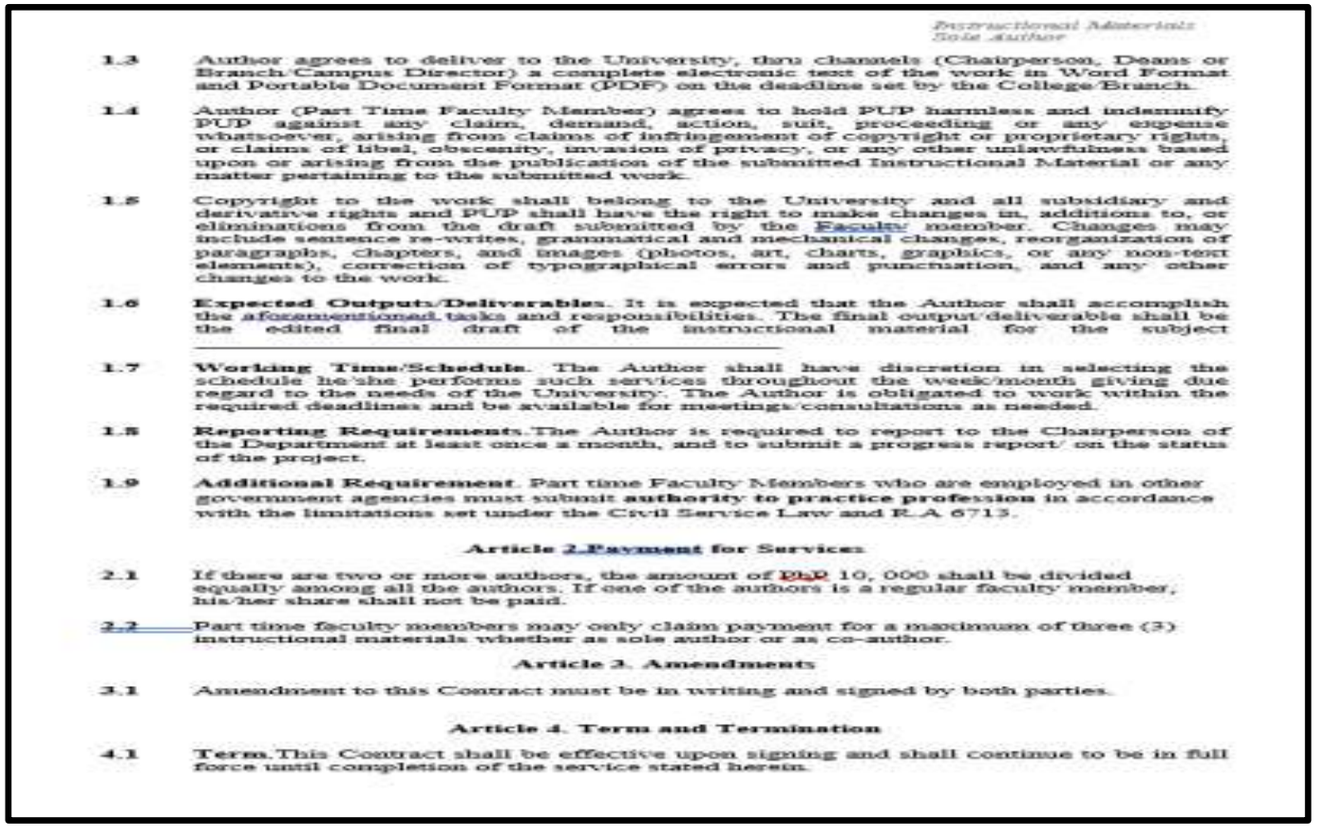
1.2.1 is original and no part of the instructional material was taken from or based on any other literary, dramatic, musical, film, or graphic arts, except as identified in the writing by the ~~Author;~~

1.2.2 does not infringe upon any copyright, privacy rights, rights of a third party, or any law and does not contain any material of a libelous or obscene ~~nature;~~

1.2.3 is not the public domain, and has not been published in any format with any University or any publisher that may still own such rights to the work; and

1.2.4 to the best of Author's knowledge and belief, all statements of fact contained in the work are true and based on appropriate and diligent research.

COPY OF JOB ORDER CONTRACT FOR PAYMENT TO PART-TIME FACULTY MEMBERS FOR PREPARATION OF INSTRUCTIONAL MATERIALS



Instructional Materials
Sole Author

1.3 Author agrees to deliver to the University, thru channels (Chairperson, Deans or Branch/Campus Director) a complete electronic text of the work in Word Format and Portable Document Format (PDF) on the deadline set by the College/Branch.

1.4 Author (Part Time Faculty Member) agrees to hold PUP harmless and indemnify PUP against any claim, demand, action, suit, proceeding or any expense whatsoever, arising from claims of infringement of copyright or proprietary rights, or claims of libel, obscenity, invasion of privacy, or any other unlawfulness based upon or arising from the publication of the submitted Instructional Material or any matter pertaining to the submitted work.

1.5 Copyright to the work shall belong to the University and all subsidiary and derivative rights and PUP shall have the right to make changes in, additions to, or eliminations from the draft submitted by the Faculty member. Changes may include sentence re-writes, grammatical and mechanical changes, reorganization of paragraphs, chapters, and images (photos, art, charts, graphics, or any non-text elements), correction of typographical errors and punctuation, and any other changes to the work.

1.6 **Expected Outputs/Deliverables**. It is expected that the Author shall accomplish the aforementioned tasks and responsibilities. The final output/deliverable shall be the edited final draft of the instructional material for the subject

1.7 **Working Time/Schedule**. The Author shall have discretion in selecting the schedule he/she performs such services throughout the week/month giving due regard to the needs of the University. The Author is obligated to work within the required deadlines and be available for meetings/consultations as needed.

1.8 **Reporting Requirements**.The Author is required to report to the Chairperson of the Department at least once a month, and to submit a progress report/ on the status of the project.

1.9 **Additional Requirement**. Part time Faculty Members who are employed in other government agencies must submit **authority to practice profession** in accordance with the limitations set under the Civil Service Law and R.A 6713.

Article 2.Payment for Services

2.1 If there are two or more authors, the amount of PhP 10, 000 shall be divided equally among all the authors. If one of the authors is a regular faculty member, his/her share shall not be paid.

2.2 Part time faculty members may only claim payment for a maximum of three (3) instructional materials whether as sole author or as co-author.

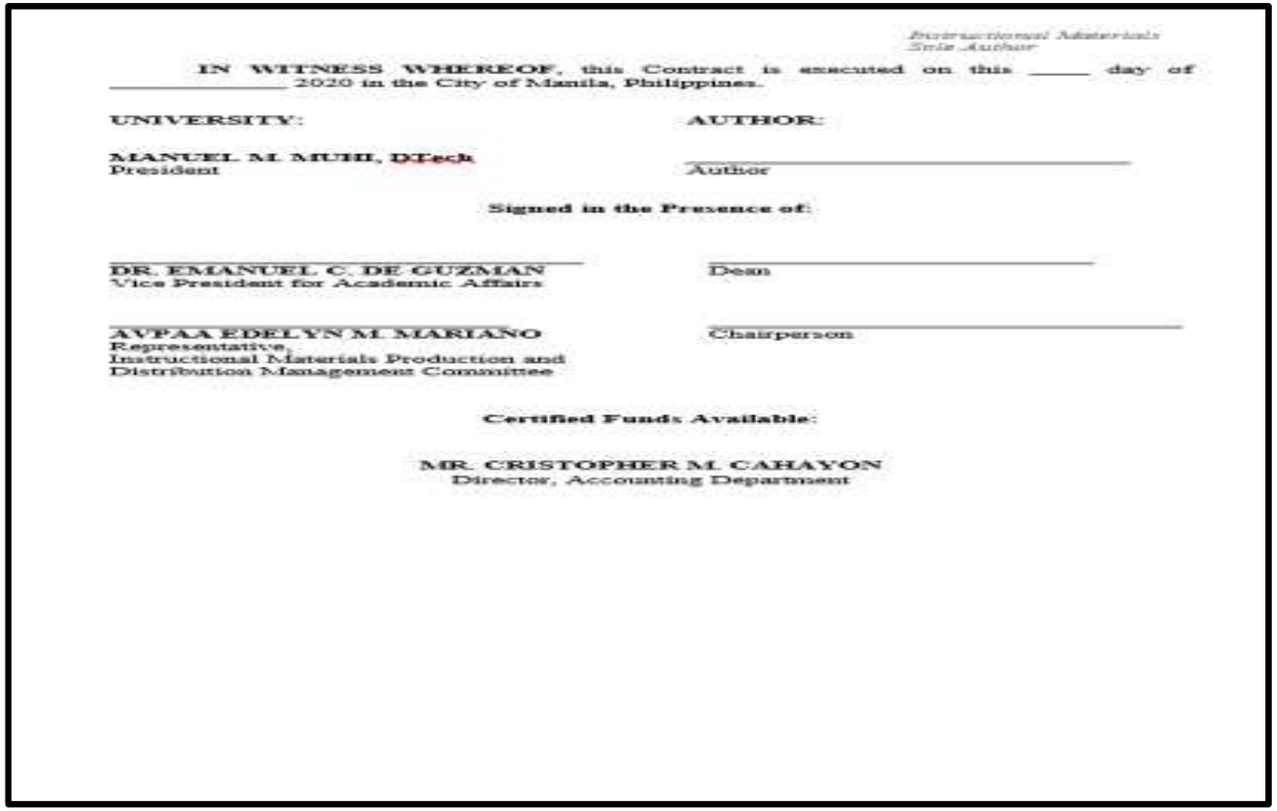
Article 3. Amendments

3.1 Amendment to this Contract must be in writing and signed by both parties.

Article 4. Term and Termination

4.1 **Term.**This Contract shall be effective upon signing and shall continue to be in full force until completion of the service stated herein.

COPY OF JOB ORDER CONTRACT FOR PAYMENT TO PART-TIME FACULTY MEMBERS FOR PREPARATION OF INSTRUCTIONAL MATERIALS



Instructional Materials Sole Author

IN WITNESS WHEREOF, this Contract is executed on this _____ day of _____ 2020 in the City of Manila, Philippines.

UNIVERSITY:

MANUEL M. MUHH, DTech
President

AUTHOR:

_____
Author

Signed in the Presence of:

_____
DR. EMANUEL C. DE GUZMAN
Vice President for Academic Affairs

_____
Dean

_____
AVPAA EDELYN M. MARIANO
Representative,
Instructional Materials Production and
Distribution Management Committee

_____
Chairperson

Certified Funds Available:

MR. CRISTOPHER M. CAHAYON
Director, Accounting Department

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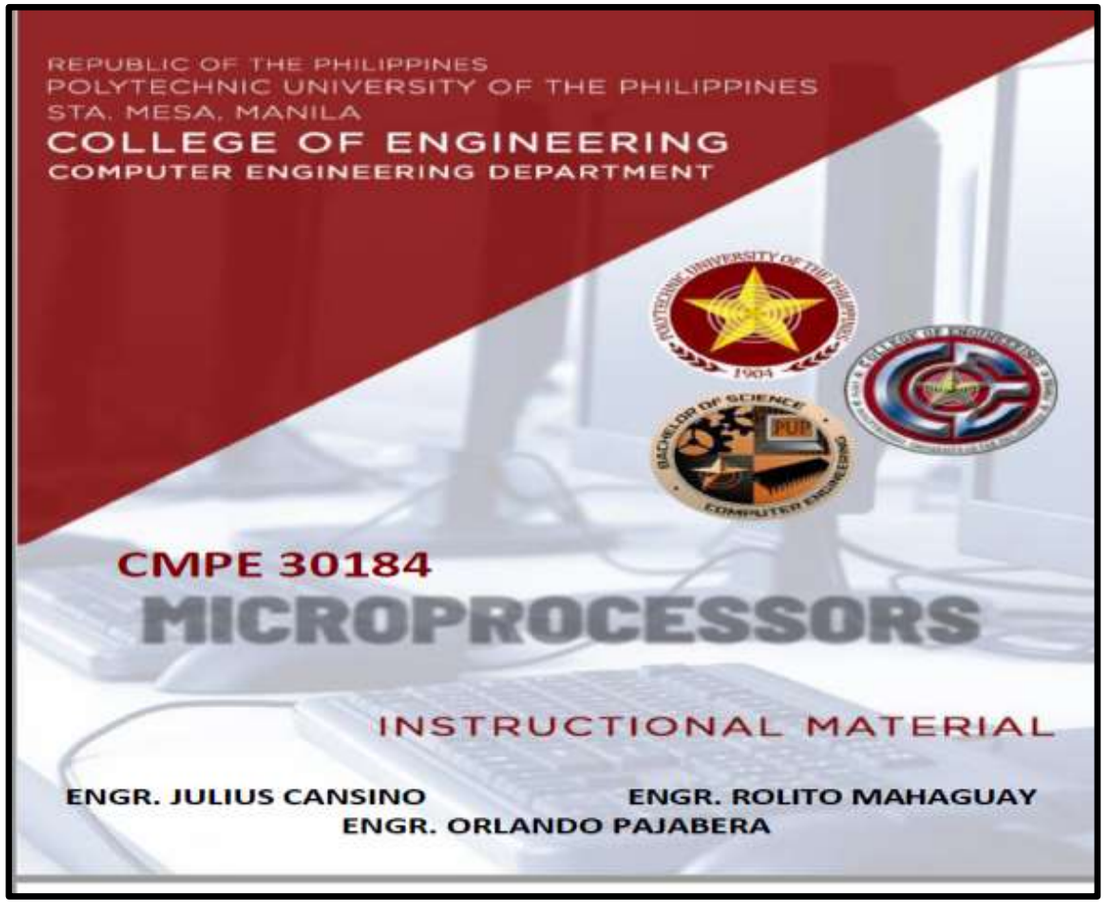

SAMPLE INSTRUCTIONAL MATERIAL IN CMPE 30184 MICROPROCESSORS

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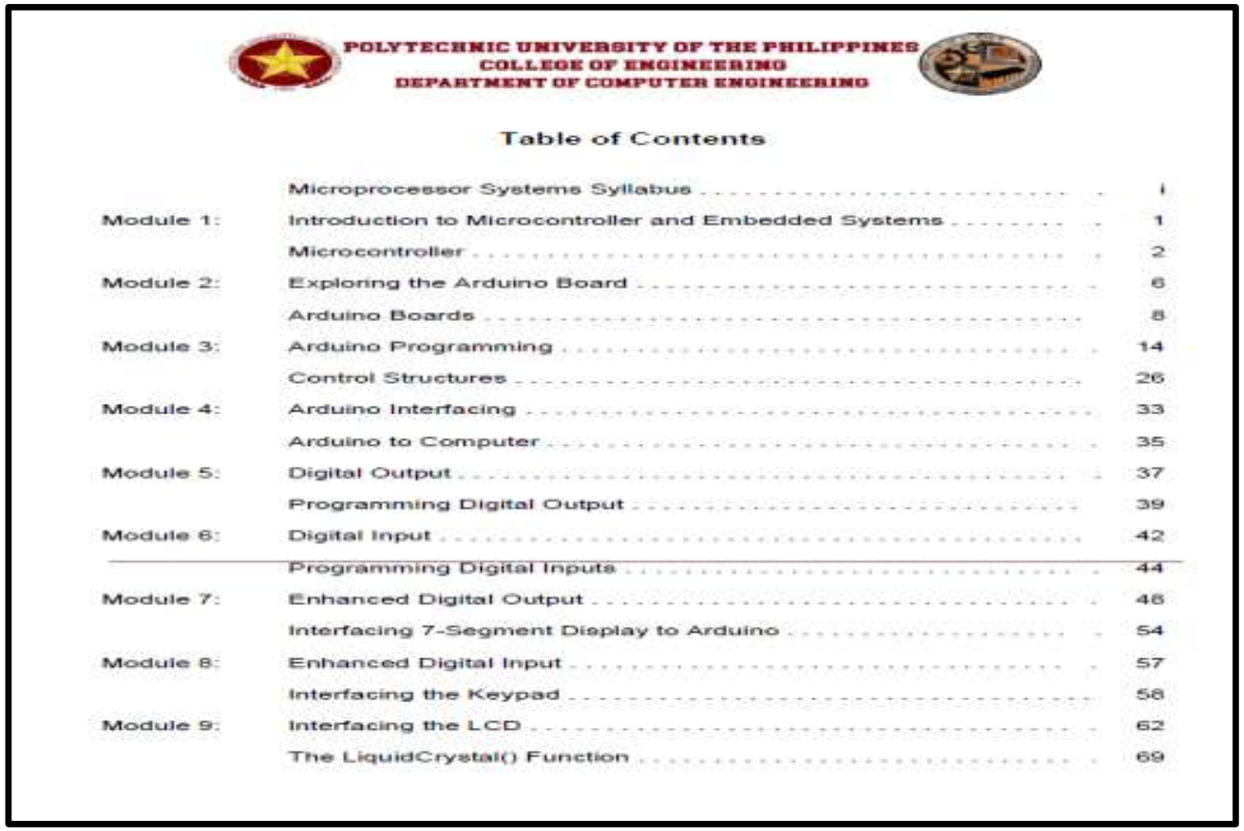

POLYTECHNIC UNIVERSITY OF THE PHILIPPINES
COLLEGE OF ENGINEERING
DEPARTMENT OF COMPUTER ENGINEERING

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Module 1: Introduction to Microcontrollers and Embedded Systems

Objectives:

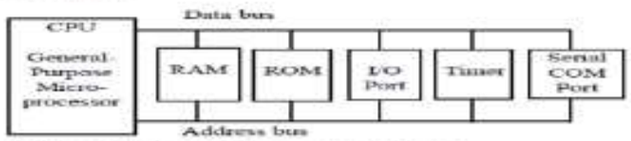
At the end of this module, the student should be able to:

- Define microprocessor, microcontroller and embedded system;
- Explain the function of microprocessor and microcontroller;
- Discuss the components and features of microcontroller;
- Explain the advantages and disadvantages of microcontroller;
- Discuss the embedded system.

Microprocessor

A microprocessor (sometimes abbreviated as µP) is a digital electronic component with miniaturized transistors on a single semiconductor integrated circuit (IC). One or more microprocessors typically serve as a central processing unit (CPU) in a computer system or handheld device. It is commonly referred as general-purpose microprocessor.

A system designer using a microprocessor must add interfaces such as RAM, ROM, I/O ports and timers to make it functional.



(a) General-Purpose Microprocessor System

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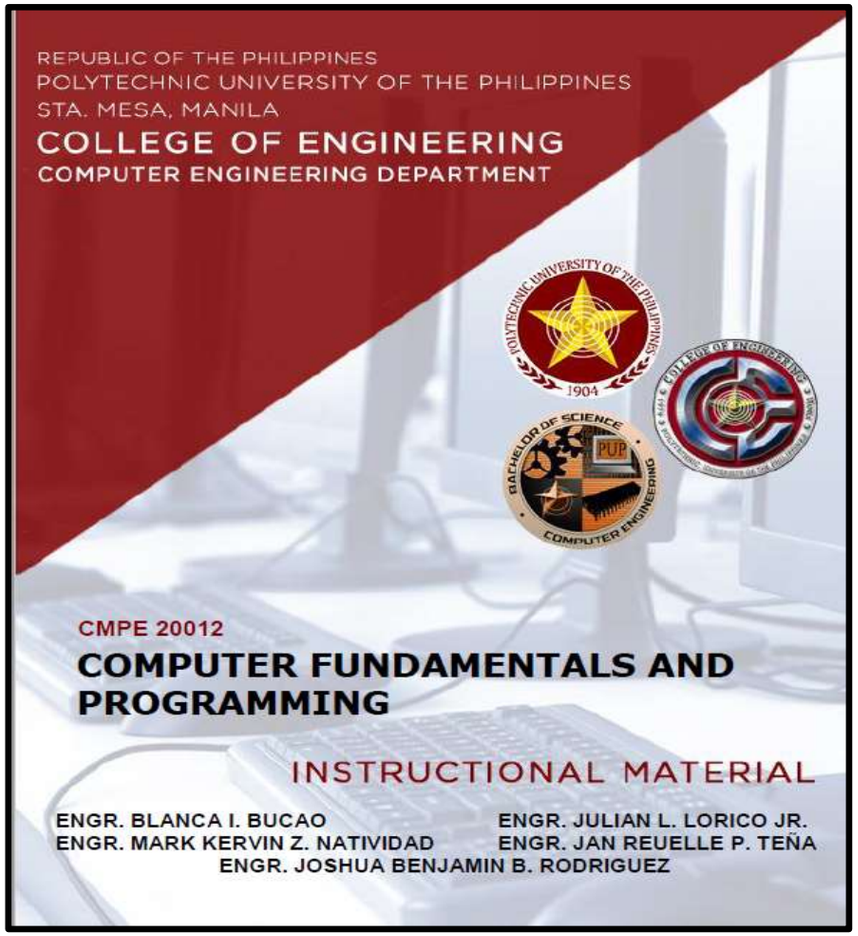

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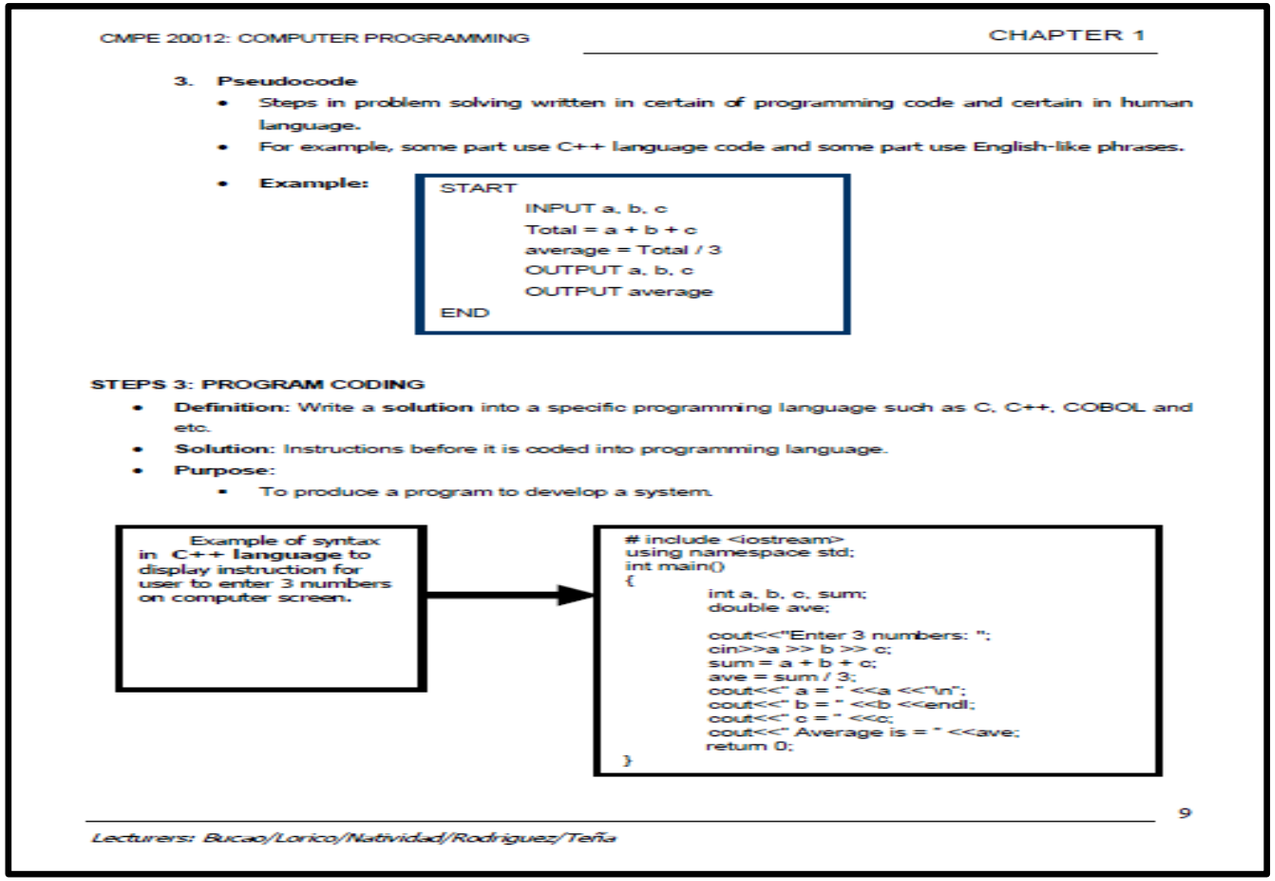

CMPE 20012: COMPUTER PROGRAMMING CHAPTER 1

3. **Pseudocode**
   - Steps in problem solving written in certain of programming code and certain in human language.
   - For example, some part use C++ language code and some part use English-like phrases.
   - **Example:**

```
START
        INPUT a, b, c
        Total = a + b + c
        average = Total / 3
        OUTPUT a, b, c
        OUTPUT average
END
```

STEPS 3: PROGRAM CODING

- **Definition:** Write a **solution** into a specific programming language such as C, C++, COBOL and etc.
- **Solution:** Instructions before it is coded into programming language.
- **Purpose:**
  - To produce a program to develop a system.

Example of syntax in **C++ language** to display instruction for user to enter 3 numbers on computer screen.

```
# include <iostream>
using namespace std;
int main()
{
        int a, b, c, sum;
        double ave;

        cout<<"Enter 3 numbers: ";
        cin>>a >> b >> c;
        sum = a + b + c;
        ave = sum / 3;
        cout<<" a = " <<a <<"\n";
        cout<<" b = " <<b <<endl;
        cout<<" c = " <<c;
        cout<<" Average is = " <<ave;
        return 0;
}
```

9

Lecturers: Bucao/Lorico/Natividad/Rodriguez/Teña

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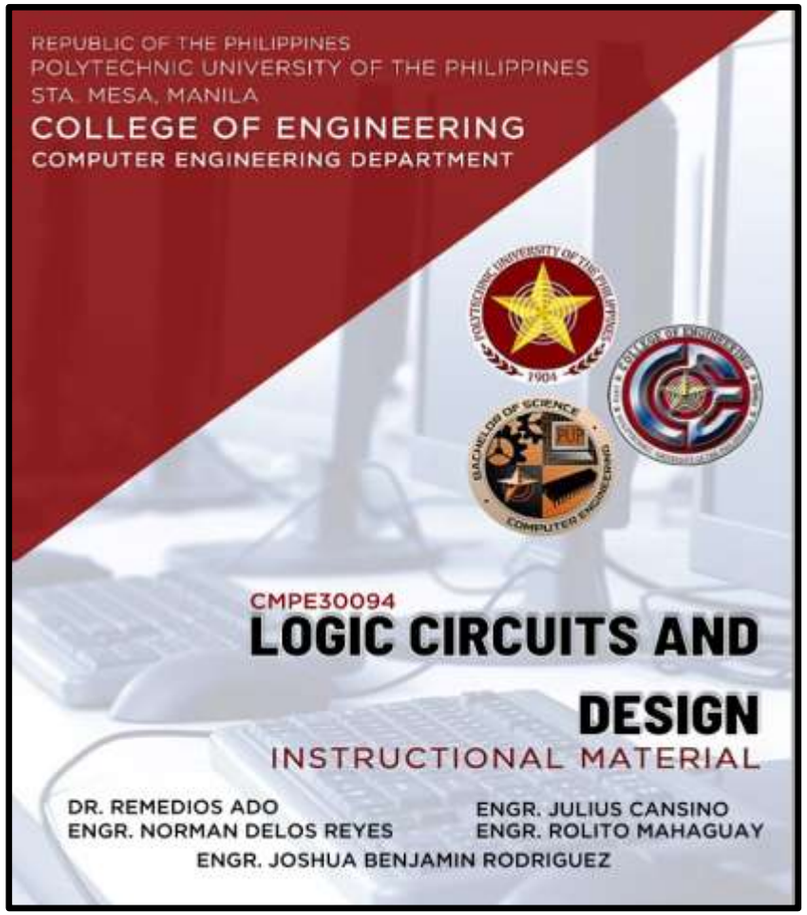

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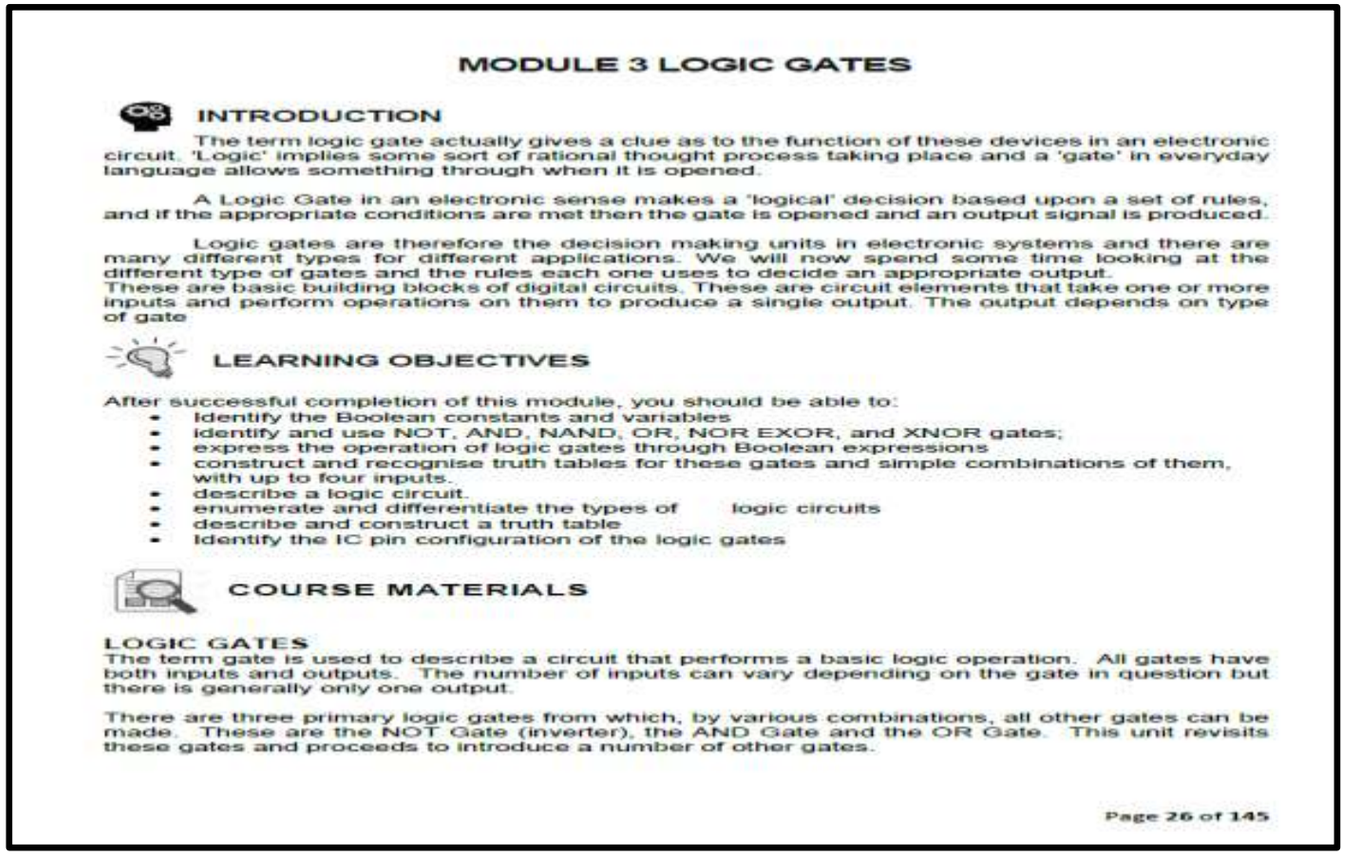

MODULE 3 LOGIC GATES

INTRODUCTION

The term logic gate actually gives a clue as to the function of these devices in an electronic circuit. 'Logic' implies some sort of rational thought process taking place and a 'gate' in everyday language allows something through when it is opened.

A Logic Gate in an electronic sense makes a 'logical' decision based upon a set of rules, and if the appropriate conditions are met then the gate is opened and an output signal is produced.

Logic gates are therefore the decision making units in electronic systems and there are many different types for different applications. We will now spend some time looking at the different type of gates and the rules each one uses to decide an appropriate output.
These are basic building blocks of digital circuits. These are circuit elements that take one or more inputs and perform operations on them to produce a single output. The output depends on type of gate

LEARNING OBJECTIVES

After successful completion of this module, you should be able to:

- Identify the Boolean constants and variables
- identify and use NOT, AND, NAND, OR, NOR EXOR, and XNOR gates;
- express the operation of logic gates through Boolean expressions
- construct and recognise truth tables for these gates and simple combinations of them, with up to four inputs.
- describe a logic circuit.
- enumerate and differentiate the types of logic circuits
- describe and construct a truth table
- Identify the IC pin configuration of the logic gates

COURSE MATERIALS

LOGIC GATES
The term gate is used to describe a circuit that performs a basic logic operation. All gates have both inputs and outputs. The number of inputs can vary depending on the gate in question but there is generally only one output.

There are three primary logic gates from which, by various combinations, all other gates can be made. These are the NOT Gate (inverter), the AND Gate and the OR Gate. This unit revisits these gates and proceeds to introduce a number of other gates.

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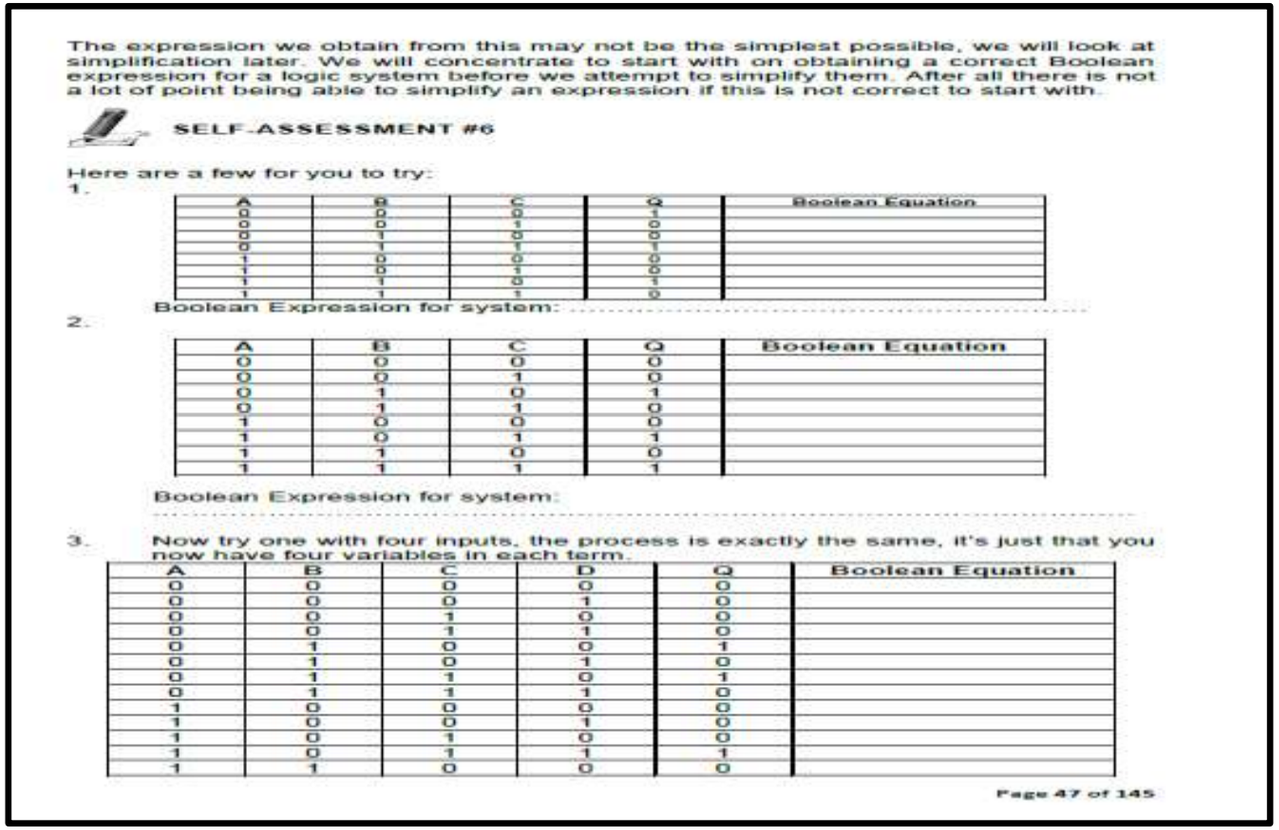

The expression we obtain from this may not be the simplest possible, we will look at simplification later. We will concentrate to start with on obtaining a correct Boolean expression for a logic system before we attempt to simplify them. After all there is not a lot of point being able to simplify an expression if this is not correct to start with.

SELF-ASSESSMENT #6

Here are a few for you to try:

1.

A	B	C	Q	Boolean Equation
0	0	0	1	
0	0	1	0	
0	1	0	0	
0	1	1	1	
1	0	0	0	
1	0	1	0	
1	1	0	1	
1	1	1	0	

Boolean Expression for system: .....

2.

A	B	C	Q	Boolean Equation
0	0	0	0	
0	0	1	0	
0	1	0	1	
0	1	1	0	
1	0	0	0	
1	0	1	1	
1	1	0	0	
1	1	1	1	

Boolean Expression for system:

.....

3. Now try one with four inputs, the process is exactly the same, it's just that you now have four variables in each term.

A	B	C	D	Q	Boolean Equation
0	0	0	0	0	
0	0	0	1	0	
0	0	1	0	0	
0	0	1	1	0	
0	1	0	0	1	
0	1	0	1	0	
0	1	1	0	1	
0	1	1	1	0	
1	0	0	0	0	
1	0	0	1	0	
1	0	1	0	0	
1	0	1	1	1	
1	1	0	0	0	

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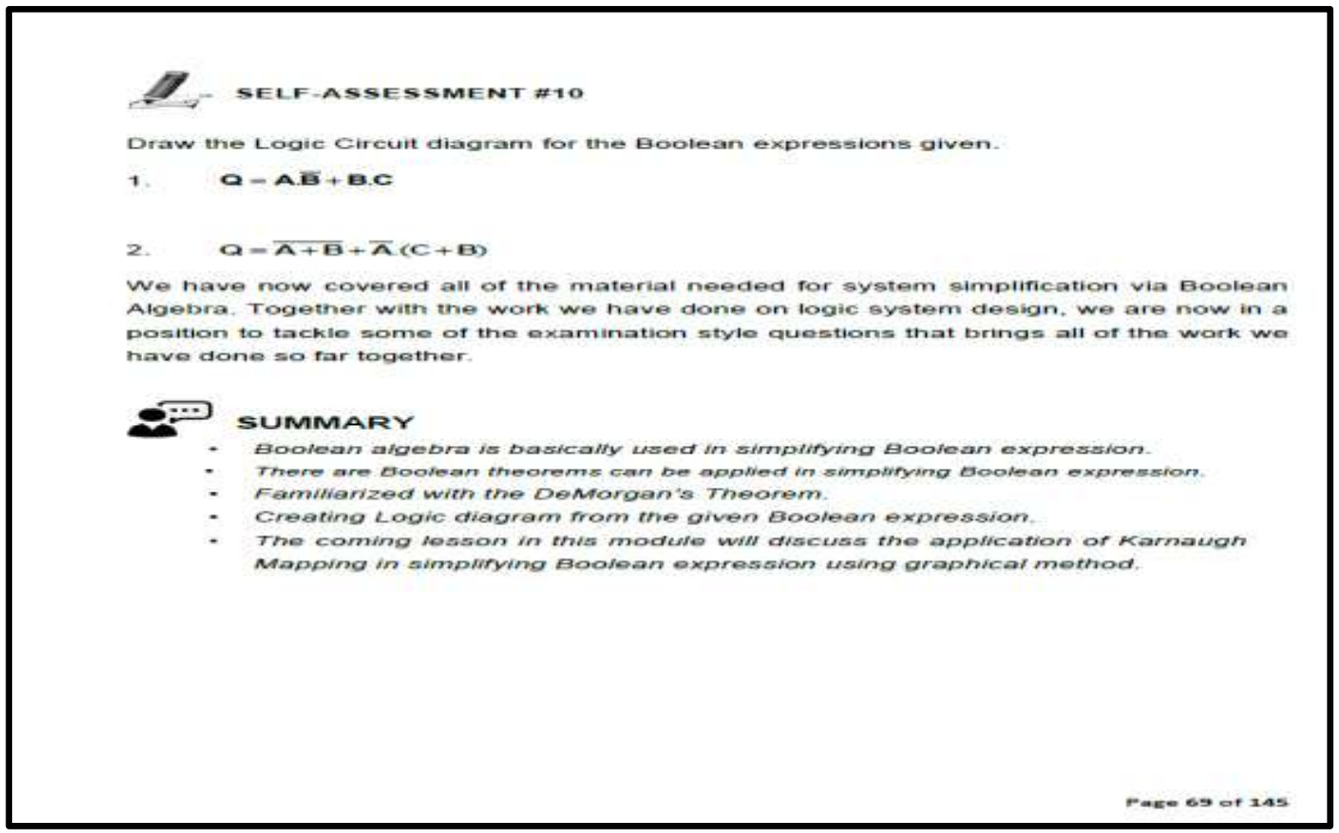

SELF-ASSESSMENT #10

Draw the Logic Circuit diagram for the Boolean expressions given.

1. $Q = A\overline{B} + B.C$

2. $Q = \overline{\overline{A} + B} + \overline{A}.(C + B)$

We have now covered all of the material needed for system simplification via Boolean Algebra. Together with the work we have done on logic system design, we are now in a position to tackle some of the examination style questions that brings all of the work we have done so far together.

SUMMARY

- *Boolean algebra is basically used in simplifying Boolean expression.*
- *There are Boolean theorems can be applied in simplifying Boolean expression.*
- *Familiarized with the DeMorgan's Theorem.*
- *Creating Logic diagram from the given Boolean expression.*
- *The coming lesson in this module will discuss the application of Karnaugh Mapping in simplifying Boolean expression using graphical method.*

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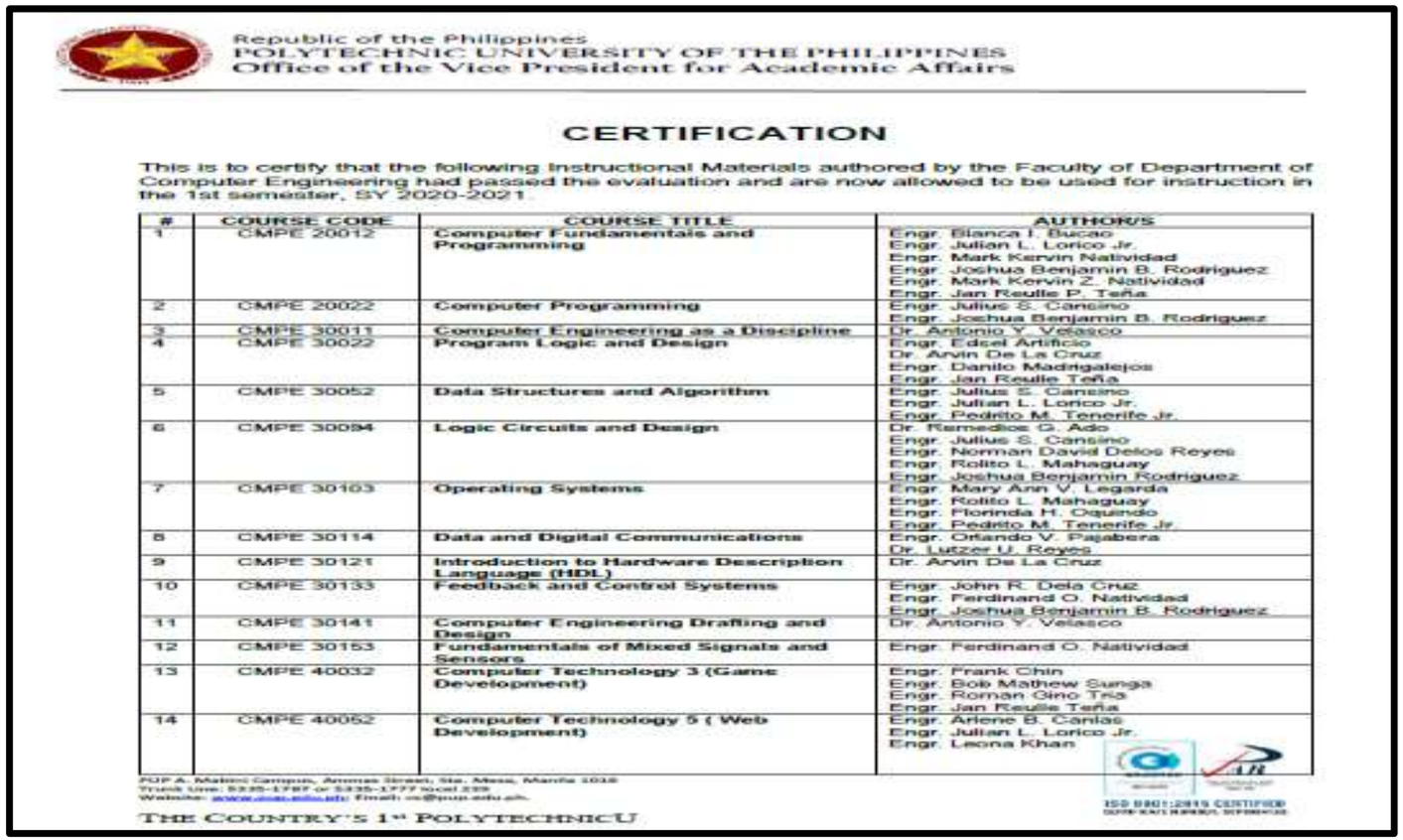

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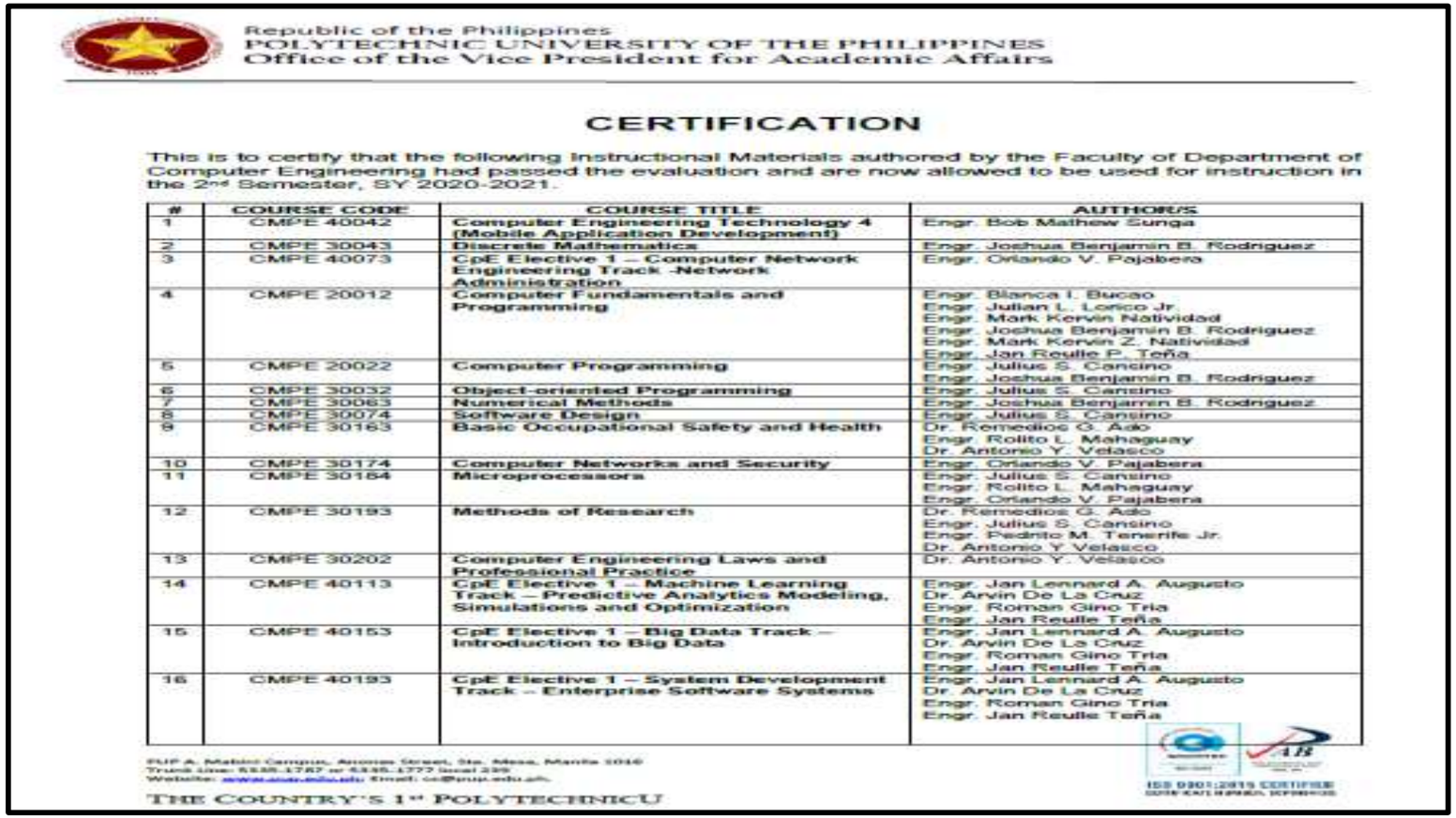

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