



Republic of the Philippines
SOUTHERN LUZON STATE UNIVERSITY
Lucban, Quezon

CERTIFICATION

This is to certify that **Associate Professor RENATO R. MAALIW III** has been the **lead** in the revision process of the academic program detailed below:

| Program Name | Type of Program | Board Approval | Academic Year Implemented | Contribution |
|---|-----------------|--------------------------|---------------------------|--|
| Bachelor of Science in Computer Engineering | Revised Program | BOR Res. No. 05, s. 2021 | 2021-2022 | <ul style="list-style-type: none">- Supervision on the revision process- Curriculum mapping and contributes in revising the curriculum.- Setting/revising of learning objectives and learning outcomes including preparation of course syllabus.- Revising the curriculum based on the comments and suggestion of the curriculum committee.- Presentation of the revised curriculum to different committee and to the board for approval |

This certification is issued upon the request of Dr. Maaliw for faculty position reclassification (DBM-CHED Joint Circular No. 3, series of 2022) use only.

Gondelina A. Radovan
GONDELINA A. RADOVAN, PhD
Vice President for Academic Affairs

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GINO A. CABRERA, RPM
OIC, HRMO

A handwritten signature in black ink, appearing to read "Gino A. Cabrera".



Republic of the Philippines
SOUTHERN LUZON STATE UNIVERSITY
Lucban, Quezon

AN EXCERPT FROM THE MINUTES OF THE COMBINED THIRD (142ND)
AND FOURTH (143RD) QUARTER REGULAR MEETING OF THE
SOUTHERN LUZON STATE UNIVERSITY BOARD OF REGENTS
HELD ON 21 JANUARY 2021, 10:00 A.M. AT THE CONFERENCE ROOM,
ADMINISTRATION BUILDING, LAGUNA STATE POLYTECHNIC UNIVERSITY,
SAN PABLO CITY, LAGUNA

BOARD RESOLUTION NO. 05, Series of 2021

**A RESOLUTION APPROVING THE ENHANCED CURRICULUM OF THE BACHELOR
OF SCIENCE IN COMPUTER ENGINEERING PROGRAM**

- WHEREAS**, pursuant to CHED Memorandum Order No. 46, s. 2012 entitled "Policy Standards to Enhance Quality Assurance (QA) in Philippine Higher Education," all Higher Education Institutions (HEIs) are mandated to shift their programs to an outcome-based approach;
- WHEREAS**, the Commission on Higher Education adopted CMO No. 87, s. 2017, entitled "Policies, Standards and Guidelines for Bachelor of Science in Computer Engineering" in recognition of outcomes-based education;
- WHEREAS**, the College of Engineering enhanced the curriculum of BS Computer Engineering following the above-cited CMO;
- WHEREAS**, the University Academic Council, by virtue of its Resolution No. 156, s. 2018 endorsed for approval of the Board of Regents the enhanced curriculum of the BS Computer Engineering;
- WHEREAS**, the Board Academic Committee favorably endorsed to the Board of Regents the enhanced curriculum of the Bachelor of Science in Computer Engineering through BOR Academic Committee Resolution No. 05, s. 2021;

NOW, THEREFORE, BE IT RESOLVED, AS IT IS HEREBY RESOLVED, that upon the recommendation of the Academic Committee, the Board of Regents hereby approved the enhanced curriculum of the Bachelor of Science in Computer Engineering program.

ADOPTED, this 21st day of January 2021 at the Laguna State Polytechnic University, San Pablo City, Laguna.

Certified true and correct:

[Signature]
AURORA L. SUMAGUE
Board Secretary V

Attested:

[Signature]
DORACIE B. ZOLETA-NANTES, PhD
Vice Chair, SLSU Board of Regents and
President, SLSU

CERTIFIED TRUE COPY AND RELEVANT

[Signature]
GINO A. CABRERA, RPM
QIC, HRMO



Republic of the Philippines
SOUTHERN LUZON STATE UNIVERSITY
Lucban, Quezon



OFFICE OF THE PRESIDENT

MEMORANDUM
No. 17, s. 2021

TO : DR. RENATO R. MAALIW III
Dean, College of Engineering
[Handwritten signature of Renato R. Maaliw III]

FROM : DORACIE B. ZOLETA-NANTES, PhD
President *[Handwritten signature of Doracie B. Zoleta-Nantes]*

RE : Implementation of the Enhanced Curricula of the College of Engineering

DATE : February 05, 2021

XXX-----XXX

Please be informed that during the Combined 3rd and 4th Quarter Regular Board Meeting held on January 21, 2021, the Board of Regents approved the enhanced curriculum of the following programs:

- | | |
|------------------------------|--------------------------------|
| 1. BS Civil Engineering | BOR Resolution No. 04, s. 2021 |
| 2. BS Computer Engineering | BOR Resolution No. 05, s. 2021 |
| 3. BS Electrical Engineering | BOR Resolution No. 06, s. 2021 |
| 4. BS Mechanical Engineering | BOR Resolution No. 07, s. 2021 |

Attached herewith are copies of the approved curricula.

For your information and guidance.

cc: Office of the VP for Academic Affairs
Office of the University Registrar
Director for Instruction and Quality Assurance

Curriculum Map

| | Code | Mathematics | Units | a | b | c | d | e | f | g | h | i | j | k | l |
|------|-------------|---|--------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| M-01 | MAT04 | Calculus 1 | 3 | I | | | | | | | | | | | |
| M-02 | MAT05 | Calculus 2 | 3 | I | | | | | | | | | | | |
| M-03 | MAT08 | Engineering Data Analysis | 3 | I | I | | | | | | | | | | |
| M-04 | MAT07 | Differential Equations | 3 | I | | | | | | | | | | | |
| | Code | Natural/Physical Sciences | Units | a | b | c | d | e | f | g | h | i | j | k | l |
| S-01 | CHM01a | Chemistry for Engineers | 4 | I | | | | | | | | | | | |
| S-02 | PHY03 | Physics for Engineers | 4 | I | | | | | | | | | | | |
| | Code | Basic Engineering Sciences | Units | a | b | c | d | e | f | g | h | i | j | k | l |
| E-01 | CAD01 | Computer Aided Drafting | 1 | I | | | | | I | | | | | | |
| E-02 | BES01 | Engineering Economics | 3 | | | | | I | | | | | I | | |
| E-03 | BES04 | Technopreneurship 101 | 3 | | | | | | | | | | I | | |
| | Code | Allied Courses | Units | a | b | c | d | e | f | g | h | i | j | k | l |
| A-01 | EEN01 | Fundamentals of Electrical Circuits | 4 | E | | | | | | | | | | | |
| A-02 | ECE01 | Fundamentals of Electronic Circuits | 4 | E | | | | | | | | | | | |
| | Code | Professional Courses | Units | a | b | c | d | e | f | g | h | i | j | k | l |
| P-01 | COE1 | Engineering Orientation | 1 | | | | | | | | | | I | | |
| P-02 | CPE01 | Discrete Mathematics | 3 | E | | | | | | | | | | | |
| P-03 | CPE02 | Programming and Logic Design | 2 | | | E | | | | | | | | | |
| P-04 | CPE03 | Database Management Systems | 3 | | | E | | | | | | | | | |
| P-05 | CPE04 | Numerical Methods | 3 | E | | | | | | | | | | | |
| P-06 | CPE05 | Data Structure and Algorithms | 3 | | | E | | | | | | | | | |
| P-07 | CPE06 | On-Line Technologies | 3 | | | E | | | | | | | | | |
| P-08 | CPE07 | Logic Circuits & Design | 3 | | E | | | | | | | | | | |
| L-01 | CPE07L | Logic Circuits & Design (Lab) | 1 | | E | | | | | | | | | | |
| L-02 | CPE08 | Computer Engineering & Drafting Design | 1 | | E | | | | | | | | | | |
| L-03 | CPE09 | Introduction to HDL | 1 | | | E | | | | | | | | | |
| P-09 | CPE10 | Fundamentals of Mixed Signals & Sensors | 3 | E | | | | | | | | | | | |
| P-10 | CPE11 | Feedback and Control Systems | 3 | E | | | | | | | | | | | |
| P-11 | CPE12 | Data and Digital Communications | 3 | E | | | | | | | | | | | |
| P-12 | CPE13 | Object-Oriented Programming | 2 | | | E | | | | | | | | | |
| P-13 | CPE14 | Basic Occupational Health & Safety | 3 | | | | | | | E | | | | | |
| P-14 | CPE15 | Cognate/Professional Course 1 | 3 | | | E | | | | | | | | | |
| P-15 | CPE16 | Computer Networks & Security | 3 | | | E | | | | | | | | | |
| L-04 | CPE16L | Computer Networks & Security (Lab) | 1 | | | E | | | | | | | | | |
| P-16 | CPE17 | Operating Systems | 3 | | | | | | | | | E | | | |
| P-17 | CPE18 | Software Design | 3 | | | E | | | | | | | | | |

Map Legend

| Code | Course Classification |
|-------------|------------------------------|
| M-XX | Mathematics |
| S-XX | Natural or Physical Science |
| L-XX | Laboratory Course |
| E-XX | Engineering Science |
| A-XX | Allied |
| P-XX | Professional |
| G-XX | GE Courses |
| I-XX | Institutional |

Note: Please delete any extra outcome column

| Code | Descriptor |
|-------------|---------------------------------------|
| I | Introductory Course |
| E | Enabling Course |
| D | Demonstrative Course |
| Code | Definition |
| I | An introductory course to an outcome |
| E | A course that strengthens the outcome |
| D | A course demonstrating an outcome |

Rento R. Martin III
10/10/2018

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|------|--------|--|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L-05 | CPE18L | Software Design (Lab) | 1 | | E | | | | | | | | | | |
| P-18 | CPE19 | Microprocessors | 3 | | E | | | | | | | | | | |
| L-06 | CPE19L | Microprocessors (lab) | 1 | | E | | | | | | | | | | |
| P-19 | CPE20 | Methods of Research | 2 | | E | | | | | | | | | | |
| P-20 | CPE21 | Cognate/Professional Course 2 | 3 | | | | | | | E | | | | | |
| P-21 | CPE22 | Digital Signal Processing | 3 | E | | | | | | | | | | | |
| L-07 | CPE22L | Digital Signal Processing (Lab) | 1 | E | | | | | | | | | | | |
| P-22 | CPE23 | Computer Architecture & Organization | 3 | | E | | | | | | | | | | |
| L-08 | CPE23L | Computer Architecture & Organization (Lab) | 1 | | E | | | | | | | | | | |
| P-23 | CPE24 | Embedded Systems | 3 | | E | | | | | | | | | | |
| L-09 | CPE24L | Embedded Systems (Lab) | 1 | | E | | | | | | | | | | |
| P-24 | CPE26 | CpE Laws and Professional Practice | 2 | | | | | E | | | | | | | |
| P-25 | CPE27 | Emerging Technologies in CpE | 3 | | | | | | | | E | | | | |
| L-10 | CPE25 | CpE Practice and Design 1 | 1 | | | | D | D | D | D | | D | | | |
| P-26 | CPE28 | Cognate/Professional Course 3 | 3 | | | | D | D | D | | | D | | | |
| P-27 | CPE29 | Seminars and Field Trips | 1 | | | | | | | | D | D | | | |
| L-11 | CPE30 | CpE Practice and Design 2 | 2 | | D | D | D | D | | | D | | D | D | D |
| P-28 | OJT | On-the-Job Training (240 hrs) | 3 | | D | D | D | D | D | D | D | D | D | D | D |

| | Code | General Education/Mandated | a | b | c | d | e | f | g | h | i | j | k | l | |
|------|-------|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| G-01 | GEC08 | Science, Technology, and Society | 3 | | | | | | | I | | I | | | |
| G-02 | GEC04 | The Contemporary World | 3 | | | | | | | | I | | I | | |
| G-03 | GEC03 | Readings in Philippine History | 3 | | | | | | I | | | I | | | |
| G-04 | GEC02 | Understanding the Self | 3 | | | | | | | | | I | I | | |
| G-05 | GEC07 | Art Appreciation | 3 | | | | I | | | | I | | | | |
| G-06 | GEC06 | Purposive Communication | 3 | | | | | | I | I | | | | | |
| G-07 | GEC05 | Mathematics in the Modern World | 3 | I | | | | I | | | | | | | |
| G-08 | GEC09 | Ethics | 3 | | | | | | | | | I | | | |
| G-09 | GEC10 | Kontekstwalisadong Komunikasyon sa Filipino | 3 | | | | | | I | | | | | | |
| G-10 | GEC11 | Filipino sa Iba't Ibang Disiplina | 3 | | | | | | | I | | | | | |
| G-11 | GEC13 | Literature of the Philippines | 3 | | | | | | | | I | I | | | |
| G-12 | GEC01 | Life, Works of Jose Rizal | 3 | | | | | | | I | | I | | | |
| G-13 | PEO01 | Physical Fitness | 2 | | | | I | | | | | | | | |
| G-14 | PEO02 | Rhythmic Activities | 2 | | | | I | | | | | | | | |
| G-15 | PEO03 | Individual/Dual Games/Sports | 2 | | | | I | | | | | | | | |
| G-16 | PEO04 | Team Sports/Games | 2 | | | | I | | | | | | | | |
| G-17 | NST01 | NSTP 1 | 3 | | | | I | | | | | I | | | |
| G-18 | NST02 | NSTP 2 | 3 | | | | I | | | | | I | | | |

| Code | Institutional Courses | Units | a | b | c | d | e | f | g | h | i | j | k | l |
|------|-----------------------|-------|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
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Kanta R. OM Martin III
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Course Prerequisite Map

| Year 4 Courses | | Year 3 Courses | | Year 2 Courses | | Year 1 Courses | |
|---|--|---|--|--|--|--|--|
| Term2 | Term1 | Term2 | Term1 | Term2 | Term1 | Term2 | Term1 |
| CPE29 Seminars & Field Trips [4th Yr. Standing] | BES04 Technopreneurship [4th Yr. Standing] | BES01 Engineering Economics [3rd Yr. Standing] | CPE07 Logic Circuits & Design [ECE01] | GEC07 Art Appreciation [No prerequisite] | GEC01 Art Appreciation [No prerequisite] | GEC01 Art Appreciation [No prerequisite] | GEC04 The Contemporary World [No prerequisite] |
| CPE30 CPE Practice and Design 2 [CPE25] | CPE22 Digital Signal Processing [CPE11] | CPE16 Computer Networks & Security [CPE12] | CPE08 Computer Engineering & Drafting Design [ECE01] | GEC13 Literature of the Philippines [No prerequisite] | GEC01 Art Appreciation [No prerequisite] | GEC03 Readings in Philippine History [No prerequisite] | GEC05 Mathematics in the Modern World [No prerequisite] |
| OJT On-the-Job Training | CPE23 Computer Architecture & Organization [CPE19] | CPE17 Operating Systems [CPE05] | CPE09 Introduction to HDL [ECE01, CPE02] | MAT08 Engineering Data Analysis [MAT04] | EEN01 Fundamentals of Electrical Circuits [PHY03] | GEC06 Purposive Communication [No prerequisite] | GEC08 Science, Technology & Society [No prerequisite] |
| | CPE24 Computer Architecture & Organization [CPE19] | CPE18 Software Design [CPE13] | CPE10 Fundamentals of Mixed Signals & Sensors [ECE01] | ECE01 Fundamentals of Electronic Circuits [EEN01] | CAD01 Computer-Aided Drafting [2nd Yr. Standing] | GEC11 Filipino sa Iba't Ibang Disiplina [No prerequisite] | MAT04 Calculus 1 (Differential) [No prerequisite] |
| | CPE25 CPE Practice & Design 1 [CPE19, CPE20] | CPE19 Microprocessors [CPE07] | CPE11 Feedback and Control Systems [ECE01, CPE04] | CPE04 Numerical Methods [MAT07] | MAT07 Differential Equations [MAT05] | MAT05 Calculus 2 (Integral) [MAT04] | CHM01a Chemistry for Engineers [No prerequisite] |
| | CPE26 CPE Laws & Professional Practice [4th Year Standing] | CPE20 Methods of Research [MAT08, GEC06, CPE07] | CPE12 Data and Digital Communications [ECE01] | CPE05 Data Structure and Algorithms [CPE02] | CPE01 Discrete Mathematics [MAT04] | PHY03 Physics for Engineers [MAT04] | COE1 Engineering Orientation [No prerequisite] |
| | CPE27 Emerging Technologies in CpE [4th Year Standing] | CPE21 Cognate/ Professional Course 1 [CPE15] | CPE13 Object-Oriented Programming [CPE05] | CPE06 On-Line Technologies [CPE02] | CPE02 Art Appreciation [No prerequisite] | PEO02 Rhythmic Activities [PEO01] | PEO01 Physical Fitness [No prerequisite] |
| | CPE28 Cognate/ Professional Course 1 [CPE21] | | CPE14 Basic Occupational Health & Safety [3rd Yr. Standing] | PEO04 Team Sports/Games [PEO03] | CPE03 Database Management Systems [2nd Yr. Standing] | NST02 National Service Training Program 2 [NST01] | NST01 National Service Training Program 1 [No prerequisite] |
| | | | CPE15 Cognate/ Professional Course 1 [3rd Yr. Standing] | | PEO03 Individual/Dual Games/Sports [PEO02] | | |

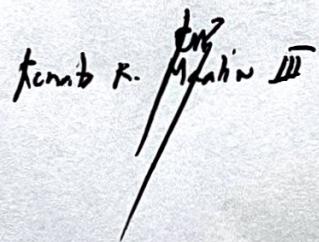
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GINO A. CABRERA, RPM

OIC, HRMO

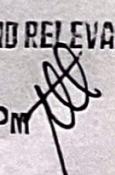
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| Program Outcomes | |
|--|---|
| By the time of graduation, the students of the program shall be able to: | |
| a | An ability to apply knowledge of mathematics, science, and engineering sciences to solve engineering problems |
| b | An ability to design and conduct experiments as well as analyze and interpret data |
| c | An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability, in accordance with standards |
| d | An ability to work effectively in multi-disciplinary and multi-cultural teams |
| e | An ability to identify, formulate, and solve engineering problems. |
| f | An understanding of professional and ethical responsibility |
| g | An ability to communicate effectively in verbal and non-verbal communication |
| h | A broad education necessary to understand impact of engineering solutions in a global, economic, environmental, and societal context |
| i | An ability to engage in life-long learning and to keep current of the development in a specific field of specialization |
| j | Knowledge of contemporary issues. |
| k | An ability to use appropriate techniques, skills, and modern engineering tools necessary for engineering practice |
| l | Knowledge and understanding of engineering and management principles as a member and leader in a team, to manage projects and in multidisciplinary environments. |



 Rommel R. Magat III

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 GINO A. CABRERA, RPM
 OIC. HRMO

| | |
|---|---------------------|
| COLLEGE OF ENGINEERING | Name : |
| Southern Luzon State University | Student Number : |
| Lucban, Quezon | Date of Admission : |
| Bachelor of Science in Computer Engineering | Program Adviser : |

FIRST YEAR

| First Semester | | | | | | | Second Semester | | | | | | |
|----------------|--------------------------|---|---------|-------------|------------|--------|-----------------|--------------------------|-------------------------------------|---------|-------------|------------|--------|
| Grad. | Code | Course Title | Le c | La b | Total I | Prereq | Grad. | Code | Course Title | Le c | La b | Total I | Prereq |
| | GEC04 | The Contemporary World | 3 | 0 | 3 | | | GEC02 | Understanding the Self | 3 | 0 | 3 | |
| | GEC05 | Mathematics in the Modern World | 3 | 0 | 3 | | | GEC03 | Readings in Philippine History | 3 | 0 | 3 | |
| | GEC08 | Science, Technology & Society | 3 | 0 | 3 | | | GEC06 | Purposeful Communication | 3 | 0 | 3 | |
| | GEC10 | Kontekstwalisidng Komunikasyon sa Filpins | 3 | 0 | 3 | | | GEC11 | Filipino sa Iba't Ibang Disiplina | 3 | 0 | 3 | |
| | MATD4 | Calculus 1 (Differential) | 3 | 0 | 3 | | | MATD5 | Calculus 2 (Integral) | 3 | 0 | 3 | MATD4 |
| | CHM01a | Chemistry for Engineers | 3 | 0 | 3 | | | PHY03 | Physics for Engineers | 3 | 0 | 3 | MATD4 |
| | CHM01a_L | Chemistry for Engineers (Lab) | 0 | 1 | 1 | | | PHY03L | Physics for Engineers (Lab) | 0 | 1 | 1 | MATD4 |
| | COE01 | Computer Engineering as a Discipline | 1 | 0 | 1 | | | PEO02 | Rhythmic Activities | 2 | 0 | 2 | PEO01 |
| | PEO01 | Physical Fitness | 2 | 0 | 2 | | | NST02 | National Service Training Program 2 | 3 | 0 | 3 | NST01 |
| | NST01 | National Service Training Program 1 | 3 | 0 | 3 | | | | | | | | |
| | Semestral Weighted Grade | | | Total Units | 25 | | | Semestral Weighted Grade | | | Total Units | 24 | |

SECOND YEAR

| First Semester | | | | | | | Second Semester | | | | | | |
|----------------|--------------------------|---|---------|-------------|------------|-----------------|-----------------|--------------------------|---|---------|-------------|------------|--------|
| Grad. | Code | Course Title | Le c | La b | Total I | Prereq | Grad. | Code | Course Title | Le c | La b | Total I | Prereq |
| | GEC01 | The Life and the Works of Rizal | 3 | 0 | 3 | | | GEC07 | Art Appreciation | 3 | 0 | 3 | |
| | GEC09 | Ethics | 3 | 0 | 3 | | | GEC13 | Literature of the Philippines | 3 | 0 | 3 | |
| | EEN01 | Fundamentals of Electrical Circuits | 3 | 0 | 3 | | | MAT08 | Engineering Data Analysis | 3 | 0 | 3 | MAT04 |
| | EEN01L | Fundamentals of Electrical Circuits (Lab) | 0 | 1 | 1 | | | ECE01 | Fundamentals of Electronic Circuits | 3 | 0 | 3 | EEN01 |
| | CAD01 | Computer-Aided Drafting | 0 | 1 | 1 | 2nd Yr Standing | | ECE01L | Fundamentals of Electronic Circuits (Lab) | 0 | 1 | 1 | EEN01 |
| | MAT07 | Differential Equations | 3 | 0 | 3 | MAT05 | | CPE04 | Numerical Methods | 3 | 0 | 3 | MAT07 |
| | CPE01 | Discrete Mathematics | 3 | 0 | 3 | MAT04 | | CPE05 | Object-Oriented Programming | 0 | 2 | 2 | CPE02 |
| | CPE02 | Programming and Logic Design | 0 | 2 | 2 | 2nd Yr Standing | | CPE06 | Online Technologies | 2 | 1 | 3 | CPE03 |
| | CPE03 | Database Management Systems | 2 | 1 | 3 | 2nd Yr Standing | | PEO04 | Team Sports/Games | 2 | 0 | 2 | PEO01 |
| | PEO03 | Individual/Dual Games/Sports | 2 | 0 | 2 | PEO01 | | | | | | | |
| | Semestral Weighted Grade | | | Total Units | 24 | | | Semestral Weighted Grade | | | Total Units | 23 | |

THIRD YEAR

| First Semester | | | | | | | Second Semester | | | | | | |
|----------------|--------------------------|---|---------|-------------|------------|------------------|-----------------|--------------------------|------------------------------------|---------|-------------|------------|---------------------|
| Grad. | Code | Course Title | Le c | La b | Total I | Prereq | Grad. | Code | Course Title | Le c | La b | Total I | Prereq |
| | CPE07 | Logic Circuits & Design | 3 | 0 | 3 | ECE01 | | BES01 | Engineering Economics | 3 | 0 | 3 | 3rd Yr. Standing |
| | CPE07L | Logic Circuits & Design (Lab) | 0 | 1 | 1 | ECE01 | | CPE16 | Computer Networks & Security | 3 | 0 | 3 | CPE12 |
| | CPE08 | Computer Engineering & Drafting Design | 0 | 1 | 1 | ECE01 | | CPE16L | Computer Networks & Security (Lab) | 0 | 1 | 1 | CPE12 |
| | CPE09 | Introduction to HDL | 0 | 1 | 1 | ECE01, CPE02 | | CPE17 | Operating Systems | 2 | 1 | 3 | CPE05 |
| | CPE10 | Fundamentals of Mixed Signals & Sensors | 3 | 0 | 3 | ECE01 | | CPE18 | Software Design | 3 | 0 | 3 | CPE13 |
| | CPE11 | Feedback and Control Systems | 3 | 0 | 3 | ECE01, CPE04 | | CPE18L | Software Design (Lab) | 0 | 1 | 1 | CPE13 |
| | CPE12 | Data and Digital Communications | 3 | 0 | 3 | ECE01 | | CPE19 | Microprocessors | 3 | 0 | 3 | CPE07 |
| | CPE13 | Data Structures & Algorithms | 0 | 2 | 2 | CPE05 | | CPE19L | Microprocessors (Lab) | 0 | 1 | 1 | CPE07 |
| | CPE14 | Basic Occupational Health & Safety | 3 | 0 | 3 | 3rd Yr. Standing | | CPE20 | Methods of Research | 2 | 0 | 2 | MAT08, GEC06, CPE07 |
| | CPE15 | Cognate/Professional Course 1 | 2 | 1 | 3 | 3rd Yr. Standing | | CPE21 | Cognate/Professional Course 2 | 2 | 1 | 3 | CPE15 |
| | Semestral Weighted Grade | | | Total Units | 23 | | | Semestral Weighted Grade | | | Total Units | 23 | |

FOURTH YEAR

| First Semester | | | | | | | Second Semester | | | | | | |
|----------------|--------------------------|--|---------|-------------|------------|------------------|-----------------|--------------------------|---|---------|-------------|------------|------------------|
| Grad. | Code | Course Title | Le c | La b | Total I | Prereq | Grad. | Code | Course Title | Le c | La b | Total I | Prereq |
| | BES04 | Technopreneurship 101 | 3 | 0 | 3 | 4th Yr. Standing | | CPE29 | Seminars and Field Trips | 0 | 1 | 1 | 4th Yr. Standing |
| | CPE22 | Digital Signal Processing | 3 | 0 | 3 | CPE11 | | CPE30 | CpE Practice and Design 2 On-The-Job Training (240 hrs) | 0 | 2 | 2 | CPE25 |
| | CPE22L | Digital Signal Processing (Lab) | 0 | 1 | 1 | CPE11 | | OJT | | 3 | 0 | 3 | 4th Yr. Standing |
| | CPE23 | Computer Architecture & Organization | 3 | 0 | 3 | CPE19 | | | | | | | |
| | CPE23L | Computer Architecture & Organization (Lab) | 0 | 1 | 1 | CPE19 | | | | | | | |
| | CPE24 | Embedded Systems | 3 | 0 | 3 | CPE19 | | | | | | | |
| | CPE24L | Embedded Systems (Lab) | 0 | 1 | 1 | CPE19 | | | | | | | |
| | CPE25 | CpE Practice and Design 1 | 0 | 1 | 1 | CPE19, CPE20 | | | | | | | |
| | CPE26 | CpE Lines and Professional Practice | 2 | 0 | 2 | 4th Yr. Standing | | | | | | | |
| | CPE27 | Emerging Technologies in CpE | 3 | 0 | 3 | 4th Yr. Standing | | | | | | | |
| | CPE28 | Cognate/Professional Course 3 | 2 | 1 | 3 | CPE21 | | | | | | | |
| | Semestral Weighted Grade | | | Total Units | 24 | | | Semestral Weighted Grade | | | Total Units | 6 | |

Total number of units: 172

Total number of units earned: _____

General Weighted (GWA): _____

| | |
|-----------------------------|---------------------|
| Title of Thesis: | |
| Thesis Adviser: | Date of Graduation: |
| Program Expiration: | Remarks: |
| Certified true and correct: | |

Approved per BOR Resolution No. 5, Series of 2021

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**GINO A. CABRERA, RPM
DIO. HRMO**

Proposed Enhancement of Curriculum

Bachelor of Science in Computer Engineering (Additional Courses)

Presented by: Renato R. Maaliw III

PROGRAM

BS Computer Engineering>>>

CCHED CMO 87, s. 2017: **166 units**
Provisional Curriculum (2018): **166 units** ✓

SLSU: 172 units (proposal)

Additional: **6 units**

- **Database Management Systems**

(2 units Lec, 1 unit Lab)

- **Online Technologies**

(2 units Lec, 1 unit Lab)

Program Description:

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

**BS Computer
Engineering >>>**

CHED CMO 87, s. 2017:
Proposed Curriculum
Additional: **6 units**

166 units
172 units

| Enhancement Course | Course Description | Justification |
|--|--|---|
| Database Management Systems (2 units Lec, 1 unit Lab) | Databases are at the heart of modern industrial application development. In addition, their use extends on many other environments and domains where large amounts of data must be stored for efficient update, retrieval, and analysis. | Database Management Systems (DBMS) are vital components of modern Industry 4.0 systems. Database applications are pervasive and range in size from small in-memory databases to terra bytes or even larger in various applications domains. Data is one of the important features of every organization because it helps industries to make decisions based on facts, statistical numbers and trends. |

**BS Computer
Engineering >>>**

CHED CMO 87, s. 2017:
Proposed Curriculum
Additional: **6 units**

166 units
172 units

| Enhancement Course | Course Description | Justification |
|--|--|--|
| Online Technologies (2 units Lec, 1 unit Lab) | The course includes building and management of a data warehouse application in an online environment, with emphasis on data accessibility using different computing devices, from desktop to mobile devices. With the ubiquity of computer systems in modern era, online communication and access is an integral part of modern lives. | Modern Industry 4.0 systems including web-based systems are accessible through the internet. Businesses and industries rely on these sets of technologies to bridge the gap on geographic locations. With the ubiquity of computing devices whether desktop or mobile devices, the need to stay connected is significant. With almost 1 billion websites now on the internet and counting, the need for professionals and experts on these field is vastly growing. |

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DIC, HRMO

Availability of Resources

| FACULTY | LAB | LIBRARY |
|---------|-----|---------|
|---------|-----|---------|

✓ Complied

1 DIT
2 MEng-CPE
2 BSCpE

✓ Complied

- Computer Laboratory
- Computer Engineering Laboratory
- Electrical Laboratory
- Electronics Laboratory
- Mechatronics Laboratory

✓ Complied

- GE books
- Professional books
- Journals
- e-journals subscription
- Magazines

PROGRAM

BS Computer Engineering>>>

CHED CMO 87, s. 2017: **166 units**

SLSU: **172 units (proposal)**

Additional: **6 units**

- **Database Management Systems**

(2 units Lec, 1 unit Lab)

- **Online Technologies**

(2 units Lec, 1 unit Lab)

Job Opportunities:

- ✓ Hardware Engineer
- ✓ Software Engineer
- ✓ Database Administrator
- ✓ Network Engineer
- ✓ Network Security Engineer
- ✓ Smart Systems Engineer
- ✓ Computer Vision Engineer
- ✓ Data Engineer
- ✓ Machine Learning Engineer
- ✓ Professor/Technical Trainer

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