



S.1.3 demonstration of the skills in applying different strategies in actual work setting.



"For Nation's Greater Heights"

SURIGAO STATE COLLEGE OF TECHNOLOGY Surigao City

Vision, Mission and Goals

Vision:

An innovative and technologically-advanced State College in Caraga.

Mission:

To provide relevant, high quality and sustainable instruction, research, production and extension programs and services within a culture of credible and responsive institutional governance.

Goals:

- 1. Foster application of the discipline and provide its learner with industry-based training and education particularly in engineering, technology and fisheries.*
- 2. Conduct and utilize studies for the development of new products, systems and services relevant to Philippine life and of the global village.*
- 3. Promote transfer of technology and spread useful technical skills, thus empowering its learners and their activities.*



BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING (BSEE)

CMO No. 87. S. of 2017
Effective A.Y 2020-2021

First Year						
First Semester						
Course Code	Descriptive Title	Lec	Lab	Units	Pre-requisite	
MATH 111	Calculus 1	5	0	5	None	
ES 133	Computer-aided Drafting	0	2	2	None	
GE Math	Mathematics in the Modern World	5	0	5	None	
GE USelf	Understanding the Self	3	1	4	None	
CHEM 121	Chemistry for Engineers	3	0	3	None	
IC 102	Introduction to Electrical Engineering	3	0	3	None	
PE 1	Physical Fitness & Health	2	0	2	None	
NSTP 1	National Service Training Program 1	3	0	3	None	
Sub- Total		24	3	27		

Second Semester						
Course Code	Descriptive Title	Lec	Lab	Units	Pre-requisite	
Math 112	Calculus 2	5	0	5	Math 111	
Phys 122	Physics for Engineers	3	1	4	Math 111; Co-requisite Math 112	
GE Entrep	The Entrepreneurial Mind	3	0	3	None	
GE IT	Living in the IT Era	3	0	3	None	
CPE 143	Computer Programming	0	1	1	None	
GE Rizal	Life and Works of Rizal	3	0	3	None	
GE PurCom	Purposive Communication	3	0	3	None	
PE 2	Rhythmic Activities	2	0	2	None	
NSTP 2	National Service Training Program 2	3	0	3	NSTP 1	
Sub- Total		25	2	27		

Second Year						
First Semester						
Course Code	Descriptive Title	Lec	Lab	Units	Pre-requisite	
Math 113	Differential Equations	3	0	3	Math 112	
EE 201	Electrical Circuits 1	3	1	4	Phys 122; Math 112	
ES 255	Engineering Mechanics	3	0	3	Phys 122	
Math 114	Engineering Data Analysis	3	0	3	Math 111	
ES 302	Fluid Mechanics	2	0	2	Phys 122	
GE AriApp	Art Appreciation	3	0	3	None	
GE EnviSci	Environmental Science	3	0	3	None	
PE 3	PE 3	2	0	2	None	
Sub- Total		22	1	23		

Second Semester						
Course Code	Descriptive Title	Lec	Lab	Units	Pre-requisite	
Math 161	Engineering Mathematics for EE	3	0	3	Math 113	
EE 202	Electrical Circuits 2	3	1	4	EE 201	
ECE 201	Electronic Circuits: Devices and Analysis	3	1	4	EE 201	
ES 262	Basic Thermodynamics	2	0	2	Phys 122	
ES 137	Engineering Economics	3	0	3	Math 114	
ECE 252	Electromagnetics	4	0	4	Phys 122; Math 113	
GE Eth	Ethics	3	0	3	None	
PE 4	PE 4	2	0	2	None	
Sub- Total		23	2	25		

Third Year						
First Semester						
Course Code	Descriptive Title	Lec	Lab	Units	Pre-requisite	
EE 301	Numerical Methods and Analysis	2	1	3	Math 161	
ECE 371	Logic Circuits and Switching Theory	3	1	4	ECE 201	
ES 246	Environmental Science and Engineering	3	0	3	None	
GE STS	Science, Technology and Society	3	0	3	None	
EE 311	Industrial Electronics	3	1	4	ECE 201	
EE 312	Fundamentals of Electronic Communications	3	0	3	ECE 201	
EE 302	Electrical Machines 1	2	0	2	ECE 252; EE 202	
ES 261	Fundamentals of Deformable Bodies	2	0	2	ES 255	
Sub- Total		21	3	24		

Second Semester						
Course Code	Descriptive Title	Lec	Lab	Units	Pre-requisite	
CpE 371	Microprocessor Systems	3	1	4	ECE 371	
EE 304	Electrical Apparatus and Devices	2	1	3	EE 202	
EE 303	Electrical Machines 2	3	1	4	EE 302	
ES 301	Basic Occupational Safety and Health	3	0	3	3rd year standing	
ES 138	Technopreneurship	3	0	3	4 th year standing	
EE 305	EE Law, Codes, and Professional Ethics	2	0	2	GE Eth	
ECE 357	Feedback and Control Systems	3	0	3	Math 161; ECE 201	
GE ConWorld	Contemporary World	3	0	3	None	
Sub- Total		22	3	25		

Summer					
Course Code	Descriptive Title	Lec	Lab	Units	Pre-requisite
Practicum	On-the-Job Training	3	240	2	4th Year Standing
Sub- Total		3	240	2	

Fourth Year First Semester					
Course Code	Descriptive Title	Lec	Lab	Units	Pre-requisite
ES 142	Materials Science and Engineering	3	0	3	CHEM 121; ES 261
EE 401	Electrical Standards and Practices	0	1	1	EE 305
EE 402	Electrical Systems and Illumination Engineering Design	3	2	5	EE 303
EE 481	Power Systems - Generation and Transmission	3	0	3	4 th year standing
EE 164	Management of Engineering Projects	2	0	2	EE 137
ES 140	Research Methods	0	1	1	Math 114; GE PurCom
EE 403	Instrumentation and Control	2	1	3	ECE 357
IC 105	EE REVIEW 1	2	0	2	4 th year standing
Sub- Total		15	5	20	

Second Semester					
Course Code	Descriptive Title	Lec	Lab	Units	Pre-requisite
EE 431	Power Systems Analysis	3	1	4	EE 401
EE 432	Fundamentals of Power Plant Engineering Design	0	1	1	Co-requisite: EE 431
EE 433	Distribution Systems and Substation Design	2	1	3	Co-requisite: EE 431
EE 482	Power Systems - Distribution System and Supply	3	0	3	EE 481
EE 422	Research Project or Capstone Design Project for EE	0	1	1	ES 142
ES 484	Seminars/Colloquia & Field Trips	0	1	1	4 th year standing
IC 106	EE REVIEW 2	2	0	2	4 th year standing
GE Hist	Readings in Philippine History	3	0	3	NONE
Sub- Total		13	5	18	
Grand Total		165	284	188	

SUMMARY		Units
I. Technical Courses		
A. Mathematics		16
B. Natural/Physical Sciences		8
C. Basic Engineering Sciences		11
D. Allied Courses		39
E. Professional Courses		52
F. Electives		6
Sub-Total		132
II. Non-Technical Courses		
A. GE Core Courses		24
B. Electives		9
C. Mandated Courses		3
D. Physical Education		8
E. NSTP		6
Sub-Total		50
III. Institutional Courses		
A. Introduction to Electrical Engineering		2
B. EE Review 1		2
EE Review 2		2
Sub-Total		6
Grand Total		188

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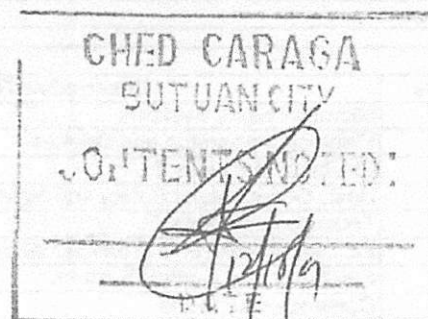
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Caraga
Regional Development Plan
2017-2022



REPUBLIC OF THE PHILIPPINES
REGIONAL DEVELOPMENT COUNCIL
CARAGA REGION

EXCERPTS FROM THE MINUTES OF THE
90th CARAGA REGIONAL DEVELOPMENT COUNCIL MEETING
held on 02 March 2017 at the NEDA Caraga Building
J.A. Rosales Avenue, Butuan City

RESOLUTION NO. 8 (S. 2017)

“APPROVING AND ADOPTING THE
CARAGA REGIONAL DEVELOPMENT PLAN 2017-2022”

WHEREAS, the implementation of the Revised Caraga Regional Development Plan (CRDP) 2013-2016, which was approved and adopted by the Regional Development Council (RDC) through Resolution No. 34, Series of 2013 concluded last year;

WHEREAS, President Rodrigo R. Duterte issued Executive Order No. 5, Series of 2016 adopting the twenty-five-year-long-term vision dubbed as *AmBisyon Natin 2040* as guide for development planning;

WHEREAS, Section 3 of EO 5, S. 2016 provides that four (4) medium term development plans, also known as the Philippine Development Plan will be crafted and implemented until 2040, which shall be anchored on the *AmBisyon Natin 2040*;

WHEREAS, President Rodrigo R. Duterte subsequently issued Memorandum Circular No. 12, S. 2016 “Directing the Formulation of the Philippine Development Plan and Public Investment Program for the Period 2017-2022,” which also prompted the preparation of the Regional Development Plans (RDPs);

WHEREAS, the 2017-2022 PDP and RDPs shall take into account the 2030 Sustainable Development Agenda (SDA), the President’s 0 to 10 Socio Economic Agenda and the National Spatial Strategy (NSS) to ensure coherent, sustainable and focused strategies;

WHEREAS, the PDP and RDPs shall likewise set the foundation for the attainment of a “Matatag, Maginhawa, at Panatag na Buhay para sa Lahat.”

WHEREAS, based on Executive Order No. 325, Series of 1996, the Regional Development Council (RDC) shall coordinate the preparation, implementation and monitoring and evaluation of short and long term development plans and investment programs;

WHEREAS, during the 88th RDC Meeting, the Council passed Resolution No. 44, S. 2016, “Approving the Process for the Preparation of the Caraga Regional Development Plan 2017-2022;”

WHEREAS, the said Guidelines contain the series of activities that will be conducted in the formulation of the RDP along with its accompanying documents namely, the Regional Development Investment Program (RDIP) and Results Matrix (RM);

WHEREAS, to ensure a participatory planning process, the RDC conducted several activities, namely, Assessment Workshops, Results Matrices and Regional Core Indicator System Workshop, and Writeshop cum Strategic Planning Workshop;

WHEREAS, the Plan also underwent two (2) rounds of provincial/city consultations with various stakeholders of the five (5) provinces and six (6) cities of the region before it was presented to the four (4) Sectoral Committees of the RDC;

WHEREAS, the RDP contains the region's development priorities that will contribute to the realization of the PDP's overarching goal of establishing a "foundation for inclusive growth and the achievement of a high-trust society and a globally competitive knowledge economy;"

WHEREAS, the Caraga Region aspires to achieve this vision by 2040: *"With the blessings of the Almighty, Caraga Region is sustainably developed, culturally responsive, globally competitive and equitably enjoying peace and fruits of prosperity;"*

WHEREAS, to pursue this vision, the Caraga Region intends to become the Fishery, Agro-forestry, Mineral and Ecotourism (FAME) Center of the Philippines by 2022;

WHEREAS, to achieve this goal, the region is adopting a *polycentric network* of development anchored on strong interaction between neighboring cities or urban areas to develop specialized and complementary assets while avoiding large scale urban sprawls and territorial competition;

WHEREAS, to ensure consistency with the Philippine Development Plan (PDP), the region's development plan framework basically adopts the national development framework;

WHEREAS, the Caraga RDP 2017-2022 adopts the broad strategies of the PDP 2017-2022:

- a) Enhancing the Social Fabric ("*Malasakit*")
 - a.1) Ensure people-centered, clean and efficient governance;
 - a.2) Pursue swift and fair administration of justice; and
 - a.3) Promote Philippine culture and awareness;
- b) Reducing Inequality ("*Pagbabago*")
 - b.1) Expand economic opportunities;
 - b.2) Improve access to economic opportunities;
 - b.3) Accelerate human capital development; and
 - b.4) Reduce vulnerability of individuals;
- c) Increasing Growth Potential ("*Patuloy na Pag-unlad*")
 - c.1) Promote technology adoption;
 - c.2) Stimulate innovation; and
 - c.3) Maximize demographic dividend;

WHEREAS, the framework is likewise underpinned by five (5) pillars, namely: a) strategic development of infrastructure, b) security, public order and peace, c) improved resilience of individuals and communities, d) gender responsive development, and e) ecological integrity, clean and healthy environment;

WHEREAS, the Regional Development Plan 2017-2022 has 22 chapters as follows:


Chapter No.	Title
1	The Long View
2	Regional Trends and Prospects
3	Regional Spatial Strategy
4	Regional Development Plan 2017-2022 Overall Framework
5	Ensuring People-Centered, Clean and Efficient Governance
6	Pursuing Swift and Fair Administration of Justice
7	Promoting Philippine Culture and Values
8	Expanding Economic Opportunities in Agriculture, Forestry and Fisheries
9	Expanding Economic Opportunities in Industry and Services through <i>Trabaho at Negosyo</i>
10	Accelerating Human Capital Development
11	Reducing Vulnerability of Individuals and Families
12	Building Safe and Secure Communities
13	Reaching for the Demographic Dividend
14	Vigorously Advancing Science, Technology and Innovation
15	Ensuring Sound Macroeconomic Management
16	Leveling the Playing Field through a National Competition Policy
17	Attaining Just and Lasting Peace
18	Ensuring Security, Public Order and Safety
19	Accelerating Infrastructure Development
20	Ensuring Ecological Integrity, Clean and Healthy Environment
21	Plan Implementation and Monitoring
22	Sustaining the Momentum Towards AmBisyon Natin 2040

NOW THEREFORE, BE IT RESOLVED, AS IT IS HEREBY RESOLVED, on motion severally seconded to approve and adopt the Caraga Regional Development Plan 2017-2022;

RESOLVED FURTHER, that copies of this resolution and the Caraga RDP 2017-2022 be furnished to the Office of the President through the NEDA Central Office, members of the Regional Development Council and other regional stakeholders for their information and appropriate action.

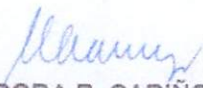
DONE during the 90th Regional Development Council Meeting on March 2, 2016 at the NEDA Caraga Building, J. Rosales Avenue, Butuan City.

Certified Correct:


ROY B. KANTUNA
RDC Secretary



Approved:


MYLAH FAYE AURORA B. CARIÑO, CESO IV
Acting RDC Chairperson

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Executive Summary

Guided by its vision “With the blessings of the Almighty, Caraga Region is sustainably developed, culturally responsive, and globally competitive; where everyone equitably enjoys the fruits of peace and prosperity,” the Caraga Regional Development Plan (CRDP) 2017-2022 aims to contribute to the attainment of the Filipino Long-Term Vision or Ambisyon Natin 2040 of a “matatag, maginhawa, at panatag na buhay para sa lahat.” Towards this end, the region’s development will rely on the optimal utilization of its vast natural resources (i.e. fertile lands, abundant marine and aqua products, rich forest and mineral resources; and many of the finest ecotourism sites) and the establishment of a knowledge-based economy.

The CRDP 2017-2022 is anchored on the Ambisyon Natin 2040, the President’s 0 to 10 socioeconomic agenda, six-point peace agenda, Caraga roadmap for peace, and the sustainable development goals. The Caraga RDP adopts the PDP’s broad strategies of 1) enhancing the social fabric, “malasakit”; 2) reducing inequality, “pagbabago;” and 3) increasing potential growth, “Kaunlaran.”

The CRDP 2017-2022 ensures that the region’s development priorities will contribute to the current administration’s overarching goal/commitment of establishing the foundation for inclusive growth, a high-trust society and a globally competitive knowledge economy.

The region adopts a polycentric network as a spatial framework of development that is anchored on strong interaction between neighboring cities or urban areas to develop specialized and complementary assets while avoiding large scale urban sprawls and territorial competition.

On accelerating human capital development, it considers human capital as the center of all planning initiatives. Thus, it contemplates a future which makes individuals more globally-competitive, safe, and healthy. Strategies and interventions have been identified to make basic social services, especially education and health, more accessible to a greater number of people to enable them to build knowledge, seize opportunities, as well as sustain life for the realization of their personal aspirations and the region’s vision and goals.

On economic development, the Plan proposes that diversity, livability, connectedness and collaboration must be the fundamental keys in attaining and sustaining inclusive growth, a high-trust society and a globally competitive knowledge economy. As a largely agri-based economy, efforts will be strengthened to realize AFF growth potentials, increase access to growth opportunities, and reduce vulnerability of farming and fishing communities.

Initiatives to expand the production of existing commodities, diversify products, improve productivity of the sectors and increase access of MSMEs to opportunities for growth, will be pursued. The plan also takes into account future land-use vis-à-vis the region's development track to sustain if not, stimulate further economic growth, maintain the competitive advantages of the sectors, and reduce inequality. More importantly, the plan commits to the reduction of vulnerability of the sectors against natural and man-made hazards, increase resiliency of individuals and communities and conserve and protect the environment.

Peace and security is considered critical or essential to development. The plan endeavors to modernize and increase the capacity of law enforcement agencies and empower communities to participate in the process of thwarting and solving criminality and conflicts to encourage more investments in the region.

The plan envisages that the region will have a well-maintained and efficient transportation network; sturdy and functional social infrastructures; sustainable irrigation system; affordable and reliable power and water supply; advance digital infrastructures; as well as vibrant communities and regional centers that are resilient, aesthetically pleasing and respectful of cultural differences.

Generally, the region's aspirations will also be attained through the following: a) strengthening of government institutions through strict implementation of programs that will improve government efficiency and effectiveness; b) establishing reforms in budget allocation and utilization; c) intensifying revenue generation; d) pursuing mechanisms, which will enable LGUs and RLAs to provide and participate in online services and transactions; d) improving local legislation and development planning; e) ensuring honest and credible elections; and f) reducing and preventing graft and corruption.

Finally, the plan provides milestones for the next three RDPs towards the attainment of Ambisyon Natin 2040.

The Long View

Bases of the Plan

President Rodrigo Roa Duterte issued Memorandum Circular No. 12, Series of 2016, “Directing the Formulation of the Philippine Development Plan and the Public Investment Program for the Period 2017-2022,” which also prompted the preparation of Regional Development Plans. Based on Executive Order No. 325, Series of 1996, Regional Development Councils (RDC) shall coordinate the preparation, implementation and monitoring and evaluation of short and long term development plans and investment programs. Towards this end, the Caraga RDC commenced with the preparation of the Caraga Regional Development Plan (RDP) 2017-2022 by issuing Resolution No. 44, Series of 2016, “Approving the Process for the Preparation of the Caraga Regional Development Plan 2017-2022.”

During its preparation, the Caraga RDP was deliberately aligned with international commitments and national priorities, even as it advances regional aspirations that are based on the region’s realities, natural endowments and comparative advantages.

The Long Term Vision

On 11 October 2016, President Duterte signed Executive Order No. 5 (s. 2016) adopting the Long Term Vision (LTV) for the country dubbed as AmBisyon Natin

2040. The LTV is the result of a process that began in 2015 where more than 300 citizens participated in focus group discussions and close to 10,000 answered a national survey. Technical studies were prepared to identify strategic options for realizing the vision articulated by citizens.

AmBisyon describes the kind of life that Filipinos want to live, and how the country will be by 2040. It presents a picture of the future, a set of personal life goals as well as ideals for the country. The Filipinos’ vision for self by 2040 is *“We will all enjoy a stable and comfortable lifestyle, secure in the knowledge that we have enough for our daily needs and unexpected expenses, that we can plan and prepare for our own and our children’s future. Our family lives together in a place of our own, and we have the freedom to go where we desire, protected and enabled by a clean, efficient, and fair government.”* In a nutshell, by the year 2040, the Filipinos have a *“Matatag, Maginhawa at Panatag na Buhay”*.

Matatag means that the family is together, there is time spent with friends, there is work-life balance and Filipinos are volunteering to secure the welfare of others. *Maginhawa* indicates freedom from hunger and poverty, secure home ownership, good transport facilities and travel and vacation. While *Panatag* describes a situation where there is enough resources for day-to-day needs, unexpected

expenses and savings; peace and security, Filipinos have long and healthy life and retire comfortably.

The long term vision for Country is: *“By 2040, the Philippines shall be a prosperous, predominantly middle class society where no one is poor; our peoples shall live long and healthy lives, be smart and innovative, and shall live in a high-trust society.”*

These visions for self and country shall be the foundation or bedrock of the next four (4) Philippine Development Plans (PDPs) until 2040. This is a progressive approach in planning that transcends political administrations: sustaining the gains of one while pursuing the priorities of another.

Under the Duterte Administration, the country commits to attain by end of 2022 a *“Foundation for inclusive growth, a high-trust society and a globally competitive knowledge economy”* through *“malasakit at pagbabago para sa patuloy na pag-unlad.”* All of these aspirations or AmBisyon is hope to be realized through a clean, efficient and people-oriented government.

The development strategies of the Philippine Development Plan 2017-2022 are categorized into three pillars: (1) enhancing the social fabric, (2) reducing inequality, and (3) increasing potential growth of the economy. These pillars shall be supported by peace and order and strong national security, massive infrastructure development and ecological integrity.

Other Bases of the Plan

The formulation of the Caraga RDP 2017-2022 is also guided by the Sustainable Development Goals (SDGs), President Duterte’s priorities known as 0 to 10 Socio-economic Agenda, the Six-Point Peace Agenda of the Philippines, Caraga Roadmap for Peace, National Spatial Strategy (NSS) 2015-2045, Mindanao Spatial Strategy/ Development Framework (MSS/DF) 2015-2045 and Regional Spatial Development Framework (RSDF) 2015-2045.

The **Sustainable Development Goals** (SDGs), officially known as *Transforming our world: the 2030 Agenda for Sustainable Development* is an international covenant that calls for affirmative and sustainable actions for people, planet, peace, partnership, and prosperity. This is a set of 17 “Global Goals” with 169 targets between them that will stimulate action over the next fifteen years in areas that are considered of critical importance for humanity and the planet.

The President’s 0 to 10 Socioeconomic Agenda includes achieving zero (0) criminality, improving macroeconomic policies, reforming the tax system, accelerating infrastructure development, strengthening basic education, promoting S&T and stepping up the implementation of the responsible parenthood and reproductive health.

The Six-Point Peace Agenda of the Philippines outlines a conflict-sensitive action agenda that intends to address long

standing conflicts in a meaningful and sustainable manner.

Meanwhile, the Caraga Road Map for Peace provides a peace building orientation to the plan of actions for FY 2016 – 2020 of the Caraga Regional Peace and Order Council, Provincial/City/Municipal Peace and Order Councils, civil society organizations (CSOs), peace partners and other stakeholders in addressing decades-long conflicts in Caraga Region. It identifies four overall results or outcomes based on the major conflict lines in the region, which are criminality, insurgency, issues affecting the indigenous peoples and resource-based conflicts.

NSS is the core strategy of the National Physical Framework Plan (NPFP) 2015-2045, which intends to guide sub-national

physical and land use planning. It provides strategies for regional agglomeration, connectivity and vulnerability reduction.

The Mindanao Spatial Strategy Development Framework (MSSDF) 2015-2045 is a 30-year development framework that provides spatial and development directions to fully optimize Mindanao's resources and harness its potentials through physical and economic integration of its regions.

The Caraga Regional Spatial Development Framework (RSDF) 2015-2045 provides the spatial direction of Caraga's development for the next 30 years. It provides the parameters for the planned allocation, use and management of the region's land and other physical resources.

The Planning Process

Even prior to the issuance of MC No. 12, Series of 2016, "Directing the Formulation of the Philippine Development Plan and the Public Investment Program for the Period 2017-2022," the Caraga RDC during its 88th Council Meeting on 27 September 2016, passed Resolution No. 44, Series of 2016, "Approving the Process for the Preparation of the Caraga Regional Development Plan 2017-2022." Said Guidelines describes the series of activities that will be conducted to formulate the RDP and its accompanying documents

namely, the Regional Development Investment Program (RDIP) and Results Matrix (RM).

The RDC created five (5) Regional Planning Committees composed of regional line agencies, local government units, RDC-Private Sector Representatives, academe and civil society organizations that will serve as the technical arm in the preparation of the Plan. The committees are as follows:

Table 1.1 Regional Planning Committees

RDC SECTORAL COMMITTEES	REGIONAL PLANNING COMMITTEES	REGIONAL PLANNING SUB-COMMITTEES
RDC-Economic Development Committee	RPC 1: Economic Development	Macroeconomic Stability Agriculture, Fishery and Forestry Industry and Services

RDC SECTORAL COMMITTEES	REGIONAL PLANNING COMMITTEES	REGIONAL PLANNING SUB-COMMITTEES
	RPC 5: Ecological Integrity	
RDC-Social Development Committee	RPC 2: Human Capital Development	Human Capital Development Resiliency of Families and Individuals
RDC-Infrastructure Development Committee	RPC 3: Infrastructure for Development	
RDC-Development Administration Committee	RPC 4: Enhancing the Social Fabric	Building Trust in Public Institutions Peace, Public Order and Security Valuing Cultural Diversity
RDC-Social Development Committee		

Prior to the actual planning exercise, the committees conducted a series of Assessment Workshops to measure the performance of the region in implementing the Revised Caraga RDP 2013-2016 in terms of attaining its goals, objectives and targets.

To support the preparation of the plan, the committees then conducted several activities, namely, Results Matrices and Regional Core Indicator System Workshop and Writeshop cum Strategic Planning Workshop.

To ensure vertical and horizontal alignment and integration of the RDP with local plans, the RDC conducted two (2) rounds of Provincial/City Consultations with various stakeholders of the five (5) provinces and six (6) cities of the region. The first round was conducted prior to the drafting of the Plan and the second round of Consultations was done after the Plan has been drafted. The RDC likewise conducted a Strategic Action Planning and Workshop for Economic Chapters and RDP Integration Workshop prior to RDP finalization.

Plan Legitimization

After the 2nd Round of Provincial/City Consultations, the draft Plan was presented to the four (4) RDC Sectoral Committees. These committees then endorsed the plan to the RDC for adoption and approval. During the 90th Caraga RDC Meeting on 02

March 2016, the Council passed Resolution No. 8. Series of 2017, “Approving and Adopting the Caraga Regional Development Plan 2017-2022.”

The Caraga Regional Development Plan 2017-2022

The Caraga RDP 2017-2022 seeks to contribute to the attainment of a “*Matatag, Maginhawa at Panatag na*

Buhay” by laying down a more solid foundation for inclusive growth, a high trust society and a globally competitive

knowledge economy at the regional level.

In the Plan, poverty incidence is targeted to go down to 20.3 percent by 2022. The economy is expected to grow on average by 4.3 percent to 7.8 percent annually until the end of the plan period. The growth is expected to translate to an employment rate of 94.5 percent to 95.3 percent while underemployment will be brought down to 20 percent from its current level of 26.8 percent.

Consistent with the PDP, the strategies of the Caraga RDP are grouped under the three major pillars of enhancing the social fabric, reducing inequality and increasing potential growth.

The Caraga RDP is organized into seven (7) parts. Part I provides the overall context for the Plan. Part II is about enhancing the social fabric to build the foundations for a high-trust society. Part III stresses the importance of reducing inequalities in economic development opportunities. Part IV focuses on increasing potential growth. Part V calls for a supportive economic environment that will enable the economy to sustain growth, while Part VI is about foundations for inclusive and sustainable development. Finally, Part VII describes the institutional arrangements for implementing and monitoring the plan and in sustaining the momentum towards AmBisyon Natin 2040

Regional Vision

Consistent with the LTV, the Caraga Region aims to achieve this vision by 2040: *“With the blessings of the Almighty, Caraga Region is sustainably developed, culturally*

responsive, and globally competitive; where everyone equitably enjoys the fruits of peace and prosperity.”

The region recognizes that it is only under the providence of the Almighty that Caraganons can move towards their desired state of development. Guided by the 2030 sustainable development agenda adopted by the United Nations last September 2015, the President’s 0 to 10 Socioeconomic Agenda and Six Point Peace Agenda, Caraga Roadmap for Peace, National Spatial Strategy (NSS) 2015-2045, Mindanao Spatial Strategy/ Development Framework (MSS/DF) 2015-2045, and Regional Spatial Development Framework (RSDF) 2015-2045, the region’s development shall focus on addressing socioeconomic concerns and preserving the integrity of the environment to ensure that resources will be available to meet the development requirements of present and future generations while maintaining the resilience of ecosystems against different forms of natural and man-made hazards.

Being culturally responsive means recognizing and respecting the region’s diverse cultures. All development efforts shall be sensitive to the social and cultural beliefs and traditions of the peoples in Caraga particularly that of the indigenous peoples’, as they are the most vulnerable.

To become globally competitive requires the effective and efficient integration of appropriate policies, plans, strategies and programs that will encourage development of the region’s natural and human resources. This requires huge financial investment.

Enhancing security and public order as well as peace and development in the urban and rural areas of the region is a prerequisite in attracting and keeping investments and in ensuring sustained socioeconomic gains.

Goal

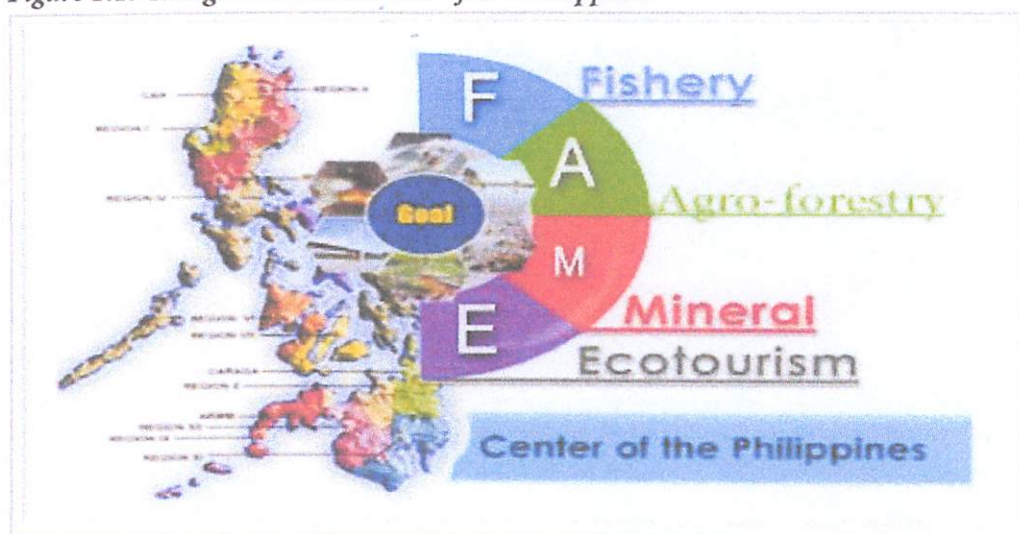
By 2022, the Caraga Region will become the **“Fishery, Agro-Forestry, Mineral and Ecotourism (FAME) Center of the Country.”**

To become the FAME Center of the country, the region will develop and utilize its abundant natural endowments, i.e. agriculture, fishery and aquaculture, forestry, mineral and ecotourism.

Becoming the FAME Center of the country, requires increasing the productivity of the region’s fishery and agro-forestry sectors through processing and value adding

activities and harnessing its tourism industry by particularly developing its vast eco-tourism potentials through massive promotions and provision of strategic infrastructure support. While mining will remain as a key sector, in the interest of sustainable development and protecting ecological integrity, mining activities will be limited to existing mining areas excluding watersheds within the mining concessions. A moratorium on the issuance of new Mineral Processing Sharing Agreements (MPSAs) or Exploration permits (EPs) will be advocated to National government. Strict enforcement of environmental laws and regulations will be observed to protect the integrity of the environment. Rehabilitation of mined-out areas will be strictly undertaken. Value adding and processing of minerals will likewise be pursued rather than just mere extraction of mineral ores.

Figure 1.1. Caraga as FAME Center of the Philippines



The development of the fishery sector will be geared towards processing of marine and inland water resources including

canning of fish and exporting high value aquamarine products such as sea lobsters,

crabs, tuna, live grouper etc. which are abundant in the region.

Increasing the area for timber production and improving forest and the productivity of agricultural lands and processing of agri-forestry products will boost the growth of the agro-forestry sectors. Self-sufficiency particularly for rice and other food staples will be aggressively pursued while increasing production for high value crops and vegetables to supply interregional needs and for export. Increasing the region's livestock production is also a priority. Processing of major crops such as abaca, coconut, rubber and palm oil will continue. Development of industrial plantations and processing will be sustained while the wood processing industry of the region will be revived.

Connectivity within Caraga and its linkage to other island groups and neighboring regions will be improved to support the growth of its priority industries. Roads going to tourism destinations are of top priority; while additional world class tourism areas will be developed. Redundant access shall be prioritized for funding and implementation to avoid the isolation of the region during disaster events.

Economic Zones will be established in the provinces and cities in support of FAME. Massive investments will be poured into the priority sectors and the government will establish an environment conducive for business to attract both domestic and foreign investors in the region. The private sector is recognized as an indispensable partner in all development efforts as the region pursues its goals.



"For Nation's Greater Heights"

SURIGAO STATE COLLEGE OF TECHNOLOGY

Document Code No.	FM-SSCT-ACAD-002
Revision No.	00
Effective Date	20 September 2018
Page No.	1 of 12

COLLEGE OF ENGINEERING AND INFORMATION TECHNOLOGY 2nd Semester, Academic Year 2020-2021

SYLLABUS in EE 305 – EE Laws, Code and Professional Ethics, etc.

Institutional Vision, Mission, and Goals

Vision:

An innovative and technologically-advanced State College in Caraga.

Mission:

To provide relevant,

- a. high quality and sustainable instruction,
- b. research, production and extension programs and
- c. services within a culture of credible and responsive institutional governance.

Goals:

1. Foster application of the discipline and provide its learner with industry-based training and education particularly in engineering, technology and fisheries.
2. Conduct and utilize studies for the development of new products, systems and services relevant to Philippine life and of the global village.
3. Promote transfer of technology and spread useful technical skills, thus empowering its learners and their activities.

Institutional Intended Learning Outcomes

: SSCT graduates are expected to:

1. Demonstrate innovation and technological skills;
2. Exhibit critical thinking, collaboration, and communication;
3. Manifest leadership, adaptability, and responsibility

Program Goals

The Electrical Engineering program aims to design and apply the generation, transmission, and distribution of electrical energy to produce competent engineers that exhibit positive work ethics and flexibility in work conditions for the development of Caraga.



Document Code No.	FM-SSCT-ACAD-002
Revision No.	00
Effective Date	20 September 2018
Page No.	2 of 12

Program Educational Objectives and Relationship to Institutional Mission

Program Educational Objectives	Mission		
	a	b	c
PEO 1. Innovative and knowledgeable in the latest trends in electrical engineering and demonstrate in their jobs as professional the technical expertise and practical skills.	✓	✓	✓
PEO 2. Flexible in working with multidisciplinary teams, responsible for providing solutions in electrical engineering showing attributes of professionalism and critical thinking.	✓	✓	✓
PEO 3. Engage in lifelong learning and are taking leadership roles in electrical engineering organization that are valuable to the advancement of the society.	✓	✓	✓

Program Outcomes and Relationship to Program Educational Objectives

Program Outcomes	Program Educational Objectives		
	1	2	3
a. Apply knowledge of mathematics and sciences to solve complex engineering problems			
b. Develop and conduct appropriate experimentation, analyze and interpret data			
c. 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. Function effectively on multi-disciplinary and multi-cultural teams that establish goals, plan tasks, and meet deadlines			
e. Identify, formulate and solve complex problems in electrical engineering			
f. Recognize ethical and professional responsibilities in engineering practice	✓	✓	✓
g. Communicate effectively with a range of audiences	✓	✓	✓
h. Understand the impact of engineering solutions in a global, economic, environmental, and societal context	✓	✓	✓
i. Recognize the need for additional knowledge and engage in lifelong learning			



"For Nation's Greater Heights"

**SURIGAO STATE COLLEGE
OF TECHNOLOGY**

Document Code No.	FM-SSCT-ACAD-002
Revision No.	00
Effective Date	20 September 2018
Page No.	3 of 12

j Articulate and discuss the latest developments in the field of electrical engineering			
k. Apply techniques, skills, and modern engineering tools necessary for electrical engineering practice			
l. Demonstrate knowledge and understanding of engineering and management principles as a member and/or leader in a team to manage projects in multidisciplinary environments			

Course Code
Course Descriptive Title
Course Credit
Pre-requisites/Co-requisites

EE 305
EE Laws, Code and Professional Ethics, etc.
2 units
Ethics

Course Description

The course is designed to prepare electrical engineering students for professional practice. Topics include education and practice of the New Electrical Engineering Law and other laws governing the profession, Philippine Grid Code, Philippine Distribution Code, Basic Contracts and ethics in relation to the practice of the electrical engineering profession.

Course Outcomes and Relationship to Program Outcomes

Course Outcomes: After completing this course, the students must be able to	Program Outcomes												
	a	b	c	d	e	f	g	h	i	j	k	l	m
1. Identify the specific laws required for a responsible practice of electrical engineering.						D	E	E					
2. Comprehend the standards necessary for proper conduct of electrical engineering.						D	E	E					
3. Discover the purpose of RA 7832.						D	E	E					
4. Determine the penalties for violating RA 7832.						D	E	E					
5. Determine the Purpose of EPIRA Law						D	E	E					
6. Explain how the EPIRA Law promotes competition, encourage market development, ensure consumer choice, and penalize abuse of market power in the restructured electricity industry.						D	E	E					
7. Discover the Code of Ethics for Electrical Engineers						D	E	E					



Detailed Course Syllabus

Document Code No.	FM-SSCT-ACAD-002
Revision No.	00
Effective Date	20 September 2018
Page No.	5 of 12

Course Outcomes	Topics	Time Frame	Teaching and Learning Activities	Assessment Tasks	Resources	Values Integration	Remarks
<p>Express understanding of the Vision and Mission statements of SSCT, including its Goals and Objectives;</p> <p>Analyze the syllabus by looking into the ILOs, Subject Matter, TLAs, Assessment Strategies, Values and References; and</p> <p>Design strategies that will help meet the requirements and obtain desired grades/marks for the course</p>	<p>ORIENTATION ON THE COURSE</p> <p>VMGO</p> <p>Syllabus</p> <p>Grading System</p>	1 hr.	<p><i>Documentary Analysis</i> of Syllabus and Grading System</p> <p><i>Concept Mapping (Sunflower Map/Fishbone Map)</i> on strategies to meet course requirements</p>		<p>Computer/ Projector for Power point presentation of the VMGO</p> <p>Syllabus</p>	Obedience, Punctuality, Diligence	
<p>CO 1: Identify the specific laws required for a responsible practice of electrical engineering.</p> <p>CO 2: Comprehend the</p>	<p>1. The New Electrical Engineering Law (RA 7920) of 1995</p>	2 hrs.	<p>Instructor provides reading module which can be available online and offline/hardcopy (upon request)</p>	<p>Online quiz using Google classroom</p> <p>Assignments</p>	<p>Module from instructor, Personal Computer, Laptop, Cell phone, Online Resources</p>	Diligence, Self-confidence, Self-awareness	



Document Code No.	FM-SSCT-ACAD-002
Revision No.	00
Effective Date	20 September 2018
Page No.	6 of 12

standards necessary for proper conduct of electrical engineering.			Online discussion using Google meet				
CO 3: Discover the purpose of RA 7832. CO 4: Determine the penalties for violating RA 7832.	2. Anti-Electricity Pilferage Act (RA 7832) of 1994	3 hrs.	Instructor provides reading module which can be available online and offline/hardcopy (upon request) Online discussion using Google meet	Online quiz using Google classroom Assignments	Module from instructor, Personal Computer, Laptop, Cell phone, Online Resources	Self-confidence, Self-awareness	
CO 5: Determine the Purpose of EPIRA Law CO 6: Explain how the EPIRA Law promotes competition, encourage market development, ensure consumer choice, and penalize abuse of market power in the restructured electricity industry.	3. EPIRA Law (RA 9136) of 2001	5 hrs.	Instructor provides reading module which can be available online and offline/hardcopy (upon request) Online discussion using Google meet	Online quiz using Google classroom Assignments	Module from instructor, Personal Computer, Laptop, Cell phone, Online Resources	Diligence; Self-confidence, Self-awareness	



Document Code No.	FM-SSCT-ACAD-002
Revision No.	00
Effective Date	20 September 2018
Page No.	7 of 12

<p>CO 7: Discover the Code of Ethics for Electrical Engineers</p> <p>CO 8: Determine how to perform under a standard of professional behavior that requires adherence to the highest principles of ethical conduct.</p>	<p>4. Code of Ethics for Electrical Engineers</p>	<p>1 hr.</p>	<p>Instructor provides reading module which can be available online and offline/hardcopy (upon request)</p> <p>Online discussion using Google meet</p>	<p>Online quiz using Google classroom</p> <p>Assignments</p>	<p>Module from instructor, Personal Computer, Laptop, Cell phone, Online Resources</p>	<p>Diligence; Self-confidence, Self-awareness</p>	
<p>CO 9: Determine the rights of residential electricity consumers and its obligations.</p>	<p>5. Magna Carta for Residential Electricity Consumer</p>	<p>2 hrs.</p>	<p>Instructor provides reading module which can be available online and offline/hardcopy (upon request)</p> <p>Online discussion using Google meet</p>	<p>Online quiz using Google classroom</p> <p>Assignments</p>	<p>Module from instructor, Personal Computer, Laptop, Cell phone, Online Resources</p>	<p>Self-confidence, Self-awareness</p>	



Document Code No.	FM-SSCT-ACAD-002
Revision No.	00
Effective Date	20 September 2018
Page No.	8 of 12

<p>CO 10: Appraise the importance of Warranty, Liability, Patents, Bids, and Insurance.</p> <p>CO 11: Distinguish the difference between Warranties and Guarantee</p> <p>CO 12: Distinguish the difference between Liabilities and Debt</p>	<p>6. Warranties, Liabilities, Patents, Bids, and Insurance</p>	<p>2 hrs.</p>	<p>Instructor provides reading module which can be available online and offline/hardcopy (upon request)</p> <p>Online discussion using Google meet</p>	<p>Online quiz using Google classroom</p> <p>Assignments</p>	<p>Module from instructor, Personal Computer, Laptop, Cell phone, Online Resources</p>	<p>Self-confidence, Self-awareness</p>	
<p>MIDTERM EXAMINATION: 2.0 Hours</p>							
<p>CO 13: Understand the intended use of Grid Code</p>	<p>7. Grid Code</p>	<p>3 hrs.</p>	<p>Instructor provides reading module which can be available online and offline/hardcopy (upon request)</p> <p>Online discussion using Google meet</p>	<p>Online quiz using Google classroom</p> <p>Assignments</p>	<p>Module from instructor, Personal Computer, Laptop, Cell phone, Online Resources</p>	<p>Self-confidence</p>	
<p>CO 14: Distinguish the technical aspects of the working relationship between the distributors and all the users of the</p>	<p>8. Distribution Code</p>	<p>3hrs.</p>	<p>Instructor provides reading module which can be available online and</p>	<p>Online quiz using Google classroom</p> <p>Assignments</p>	<p>Module from instructor, Personal Computer, Laptop, Cell phone, Online Resources</p>	<p>Diligence; Self-confidence,</p>	



Document Code No.	FM-SSCT-ACAD-002
Revision No.	00
Effective Date	20 September 2018
Page No.	9 of 12

distribution system			offline/hardcopy (upon request) Online discussion using Google meet			Self-awareness	
CO 15: Determine the policy covering technical requirements in constructing or renovating buildings and structures in the Philippines to secure the life, health, property and welfare of the Filipinos	9. National Building Code	4 hrs.	Instructor provides reading module which can be available online and offline/hardcopy (upon request) Online discussion using Google meet	Online quiz using Google classroom Assignments	Module from instructor, Personal Computer, Laptop, Cell phone, Online Resources	Self-confidence, Self-awareness	
CO 16: Determine the rules, and understand the purpose of Wholesale Electricity Spot Market	10. Wholesale Electricity Spot Market Rules	4 hrs.	Instructor provides reading module which can be available online and offline/hardcopy (upon request) Online discussion using Google meet	Online quiz using Google classroom Assignments	Module from instructor, Personal Computer, Laptop, Cell phone, Online Resources	Self-confidence, Self-awareness	
CO 17: Determine the Guidelines for Energy Conserving Design of Buildings and Utility Systems	11. Guidelines for Energy Conserving Design of Buildings and Utility Systems	1 hr.	Instructor provides reading module which can be available online and offline/hardcopy	Online quiz using Google classroom Assignments	Module from instructor, Personal Computer, Laptop, Cell phone, Online Resources	Self-confidence, Self-awareness	



Document Code No.	FM-SSCT-ACAD-002
Revision No.	00
Effective Date	20 September 2018
Page No.	10 of 12

			(upon request) Online discussion using Google meet				
CO 18: Distinguish the relevant laws, codes and standards in the energy and power industry	12. Other relevant laws, codes and standards in the energy and power industry	1 hr.	Instructor provides reading module which can be available online and offline/hardcopy (upon request) Online discussion using Google meet	Online quiz using Google classroom Assignments	Module from instructor, Personal Computer, Laptop, Cell phone, Online Resources	Self-confidence, Self-awareness	
FINAL EXAMINATION: 2.0 Hours							

References:

- The New Electrical Engineering Law (RA 7920)
- Anti-Electricity Pilferage Act (RA 7832)
- EPIRA Law (RA 9136)
- Code of Ethics for Electrical Engineers
- Magna Carta for Residential Electricity Consumer
- <https://www.scribd.com/document/438966676/EE-Laws-Warranties-Etc-Report>
- Grid Code
- **Distribution Code**
- **National Building Code**
- Wholesale Electricity Spot Market Rules



SURIGAO STATE COLLEGE OF TECHNOLOGY

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Course Requirements:

- Oral Participation during Class discussion
- Portfolio of Problem Sets
- Individual Project using Math Equation Editor in MS-Word
- Midterm & Final Examination

Course Evaluation:

<u>Criteria</u>	<u>Lecture Grade</u>
➤ Major Exams (Midterm and Finals)	40%
➤ Performance Task (Project / Assignments)	35%
➤ Quizzes and Online outputs/interaction	<u>25%</u>
TOTAL	100%

<u>Grade Point</u>	<u>Description</u>
1.0	Excellent
1.5 – 1.1	Very Good
2.0 – 1.6	Highly Satisfactory
2.5 – 2.1	Good
2.9 – 2.6	Satisfactory
3.0	Passing
5.0	Failed due to poor performance, absences, withdrawal without notice
DRP	Dropped with approved dropping slip
INC	Incomplete requirements but w/ passing class standing. INC is for non-graduating students only
NG	No Grade

Source: SSCT Student Handbook

Course Policies:

1. Attendance will be checked in every class sessions to prove the students' presence in the class. This is to monitor whether absences incurred by the student is still within the allowed number of absences for a course as stipulated in the Student Handbook.
2. Excuse from the class will only be honoured if a Memo from the school is issued before the absence or valid excuse letter from parents/guardians is presented after the absence. No other excuses will be entertained.

Document Code No	FM-SSCT-ACAD-002
Revision No	00
Effective Date	20 September 2018
Page No	11 of 12



**SURIGAO STATE COLLEGE
OF TECHNOLOGY**

"For Nation's Greater Heights"

Document Code No.	FM-SSCT-ACAD-002
Revision No.	00
Effective Date	20 September 2018
Page No.	12 of 12


3. The use of multiple choice questionnaires is used during the midterm and final examination. However, for problem solving, a detailed solution is required written legibly in a separate long size bond paper or newsprint.
4. Cheating in midterm and final examination will entail a zero score. Cheating is defined to include an attempt to defraud, deceive, or mislead the instructor in arriving at honest grade assessment.
5. Plagiarism in papers and other works will entail zero score. Plagiarism is a form of cheating that involves presenting as one's own work the ideas or work of another.
6. Students who fail to take the midterm and final examination as scheduled shall be required to write an explanation letter address to the Program Chair, noted by the parents/guardian, and approved by the Dean. After that, he/she can take the missed examination.
7. Clearance is required when the student take the final examination based on No Clearance No Examination Policy.
8. Project shall be submitted on the set deadline by the instructor. Unsatisfactory project will not be accepted. However, the student will be given a chance to improve their project. Non-submission of the project on the set deadline means a zero score.

Revision History:

Revision No.	Date of Revision	Date of Implementation	Highlight of Revision
1	August 2019	1st Sem, AY 2019-2020	Followed OBTL Format as per CMO #101 S. 2017
2	December 5, 2020	1st Sem, AY 2020-2021	Followed suggestion from ChED COPC.


Preparation, Review, and Approval:

Prepared by:


ENGR. VICENTE Z. DELANTE
 Assistant Professor III

Date: 01/21/2021

Checked and Reviewed by:


ENGR. VICENTE DELANTE, MSEE
 Program Chair, ESEE

Date: 01/21/2021

Noted by:


ENGR. ROBERT R. BACARRO, MECE, MBA
 Dean, CEIT

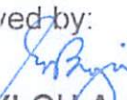
Date: 1-22-21

Recommended by:


DR RONITA E. TALINGTING
 Campus Director

Date: 1-22-21

Approved by:


EMMYLOU A. BORJA, EdD
 VP for Academic Affairs

Date: 1-23-2021