NDDU VISION-MISSION STATEMENT

VISION

Notre Dame of Dadiangas University is a Catholic, Filipino Institution of Academic Excellence established by the Marist Brothers of the Schools *(F.M.S.- Fratres Maristae a Scholis)* characterized by St. Marcellin Champagnat's ideals of simplicity, humility and quiet zeal for God's work as inspired by the Blessed Virgin Mary. The school is dedicated to the formation of persons in all levels of learning, who, as ***Christian Leaders, Competent Professionals, Community-Oriented Citizens and Culture-Sensitive Individuals*** will actively participate in building a peaceful and progressive nation.

MISSION

- As a ***Catholic Educational Institution***, NDDU shares in the Church's mission of evangelization by integrating life and faith;
- As a ***Filipino Institution***, NDDU seeks to preserve Filipino Culture and propagate love of country and its people;
- As an ***Institution of Quality Education***, NDDU aims leadership in Curricular Programs, Multi-Disciplinary Programs, Research, and Community Service;
- As a ***Marist Institution***, NDDU promotes the core values of Family Spirit, Marian Spirit, Simplicity, Presence, Preference for the Least Favored, Love of Work, and Integrity of Creation; and
- As a ***Community-Oriented Institution***, NDDU aims to respond to the challenges of the locality it is serving: South Cotabato, Sultan Kudarat, Sarangani Province and, General Santos City (SOCSKSARGEN Area).

COLLEGE OBJECTIVES

The College of Engineering and Technology aims to:

1. Educate students to become Christian leaders, competent professionals, community oriented citizens, and culture sensitive individuals in order to contribute to the professional workforce in Engineering, Architecture, and Information Technology/
2. Serve the Engineering, Architecture, and Information Technology professions and the society through excellence in research and innovation that discovers new knowledge and enable new technologies and systems
3. Embrace a culture of service to the local, national, and international communities.
4. Equip students with employable skills along with a sense of social, moral and environmental responsibility.
5. Produce graduates highly specialized in civil, electrical, electronics, industrial, and computer engineering, information technology and Architecture that have a strong foundation in the basic physical, behavioral and social sciences and holistically consider the economic, social andenvironmental relevance to projects undertaken

For more information, please see
The University Registrar or
Call (083) 552 4444 local 2211,
or visit us at
www.nddu.edu.ph

COURSES OFFERED

Notre Dame of Dadiangas University started operating its high school department in 1953. In 1959 the school offered the following courses: Liberal Arts, Commerce and one (1) year Secretarial course. However, NDDU endeavors to keep up with the demands of the times and with the modern trends in education, as well as to contribute to the manpower building of the General Santos community and of the country. To attain these, it now offers more programs relevant to the needs of the country. The following are the programs:

I. POST GRADUATE
- Doctor in Management (DM) major in Human Resource Management
- Doctor of Philosophy in Education (Ph.D.Ed.)
- Doctor of Philosophy in Language Education (Ph.D.LE)
- Doctor of Philosophy in Science Education (Ph.D.Sci.Ed.) Major in Biology

II. GRADUATE with Accreditation Level
- Master in Business Administration (MBA) (Thesis & Non-Thesis) Level II
- Master in Public Administration (MPA) (Thesis & Non-Thesis) Level II
- Master of Arts in Education (MAEd) Level II
  Areas of Specialization:
  Mathematics, Guidance & Counseling,
  Teaching English as a Second Language, Educational Management,
  Science Education, Religious Education and Early Childhood Education
- Master in Engineering Program Major in Civil Engineering
- Master of Arts in Nursing (MAN)

III. UNDERGRADUATE with Accreditation Level

Five Year Courses
- Bachelor of Science in Architecture (BSArch)
- Bachelor of Science in Pharmacy (BSPharma)

Four Year Courses
- Bachelor of Science in Civil Engineering (BSCE) Level II
- Bachelor of Science in Computer Engineering (BSCpE)
- Bachelor of Science in Electrical Engineering (BSEE) Level I
- Bachelor of Science in Electronics and Communications Engineering (BSECE)
- Bachelor of Science in Industrial Engineering (BSIE) Level II
- Bachelor of Arts (AB) Level IV
  Major in: Political Science, English, Communication, and Psychology
- Bachelor of Science in Biology (BSBio)
- Bachelor of Science in Mathematics (BSM)
- Bachelor of Science in Accountancy (BSA) Level II
- Bachelor of Science in Business Administration (BSBA) Level IV
  Major in: Business Economics, Financial Management, Marketing Management, Human Resource Management
- Bachelor of Science in Entrepreneurship (BSEn)
- Bachelor of Science in Hospitality Management (BSHM)
- Bachelor of Science in Internal Auditing (BSIA)
- Bachelor of Science in Management Accounting (BSMA)
- Bachelor of Science in Tourism Management (BSTM)
- Bachelor of Early Childhood Education (BECEd) Level IV
- Bachelor of Elementary Education (BEEd) Level IV
- Bachelor of Secondary Education (BSEd) Level IV
  Major in: English, Science, Mathematics, Religious Education
- Bachelor of Physical Education (BPEd)
- Bachelor of Special Needs Education Major in Elementary School Teaching (BSNEd)
- Bachelor of Science in Computer Science (BSCS) Level II
- Bachelor of Science in Entertainment and Multimedia Computing (BSEMC)
- Bachelor of Science in Environmental Planning (BSEP)
- Bachelor of Science in Information Technology (BSIT) Level II
- Bachelor of Library & Information Science (BLIS)
- Bachelor of Science in Medical Technology (BSMT)
- Bachelor of Science in Nursing (BSN) Level III

College of Engineering and Technology
NOTRE DAME OF DADIANGAS UNIVERSITY

Marist Avenue, General Santos City

Course Catalogue

BACHELOR OF SCIENCE IN COMPUTER ENGINEERING

(Government Recognition No 028 s 2011)

Effective SY 2018 – 2019

Student's Signature	
Student's Name	
Contact Number	
Email Address	

THE FIVE-YEAR CURRICULUM LEADING TO THE DEGREE

BACHELOR OF SCIENCE IN COMPUTER ENGINEERING

Per CHED Memorandum Order (CMO) No. 87 series of 2017

Effective SY 2018 – 2019*

COURSE DESCRIPTION:

Computer Engineering is a professional Engineering Discipline that embodies the science and technology of design, development, implementation, maintenance and integration of software and hardware components in modern computing systems and computer-controlled equipment.

Program Educational Objectives

At the end of the degree program, the students should :

a.) be employed and promoted as computer engineers in construction, industry, government, academe, or in other related profession.
b.) maintain state-of -the art knowledge through lifelong learning, such as graduate study, and continuing education.
c.) have developed consciousness of the ethical, legal and social responsibility of Computer Engineersand of the environmental effects of computer engineering projects to the community by responding to the changing impact of computer engineering solutions in local and global context.
d.) support thecomputer engineering profession through participation in professional societies, civic groups, and educational institutions.
e.) exhibit strong communication, interpersonal, and resource-management skills as leaders in the computer engineering profession
f.) imbibe in themselves the Christian values anchored on the ideals of St. Marcellin Champagnat by maintaining high standards of professional and ethical responsibility.

Program outcomes:

a.) apply the basic mathematical and scientific concepts that underlie the modern field of computer Engineering
b.) collect and analyze relevant data from experiments or research for the purpose of developing an engineering decision, design, or layout.
c.) design a complex system or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability and sustainability.
d.) work effectively and productively with others as a part of a multidisciplinary team
e.) solve well-defined engineering problems in the different technical areas of computer engineering
f.) determine the global, economic, environmental, and societal impacts of a specific relatively constrained engineering solution
g.) analyze a complex situation involving multiple conflicting professional and ethical interests, to determine appropriate course of action
h.) organize and deliver effective verbal, written, and graphical communication.
i.) demonstrate the ability to engage in life-long learning and an acceptance of the need to keep current of the development in the specific field of specialization.
j.) apply appropriate techniques skills, core principles of Computer Engineering in engineering practice
k.) maintain an awareness of contemporary issues and contribute to the well-being of their communities.
l.) Integrate Christian values anchored on the ideals of St. Marcellin Champagnat as they carry out the professional and ethical responsibilities of the Computer Engineering profession

- EE Students are required to maintain a minimum final grade of 2.75 in all Technical courses, and a Grade point average (GPA) of 2.50 in order to be retained in the BSEE program.
- Technical courses include: Mathematics, Natural Physical Sciences (NPS), Basic Engineering Sciences (BES), Allied courses (AC), Professional courses: (PC-CC)-Core Courses, (Elec) - Electives

FIRST YEAR – FIRST SEMESTER

Grade	Cat. #	Descriptive Title	# of Hrs/Wk Lec	# of Hrs/Wk Lab	Units	Pre-Req
	RE 111	Salvation Hist. Old Testament	3	0	3	
	GE 3	Mathematics in the Modern World	3	0	3	
	GE 5	Purposive Communication	3	0	3	
	GE 10	KontekstwalisadongKomunikasyonsa Filipino	3	0	3	
	MATH 115	Differential Calculus	5	0	5	
	CHEM 113	Chemistry for Engineers (Lec)	3	0	3	
	CHEM 114	Chemistry for Engineers (Lab)	0	3	1	
	CPE-PC110	Computer Engineering as a Discipline	1	0	1	
	CPE-PC 111	Programming Logic and Design	0	6	2	
	PE 1	Physical Fitness & Self-Testing Activities	2	0	2	
	PGS 1	Personal Growth Session 1	3	0	0	
	Total		**26**	**9**	**26**	

FIRST YEAR – SECOND SEMESTER

Grade	Cat. #	Descriptive Title	# of Hrs/Wk Lec	# of Hrs/Wk Lab	Units	Pre-Req
	RE 112	Christology	3	0	3	RE 111
	Math 220	Integral Calculus	5	0	5	MATH 115
	PHYS 212	Physics for Engineers – lec (NPS)	3	0	3	MATH 115,
	PHYS 213	Physics for Engineers – lab (NPS)	0	3	1	Math220(co-req)
	BES 120	Computer Aided Drafting	0	3	1	
	CPE-PC 120	Object Oriented programming	0	6	2	CPE-PC 111
	CPE-PC 121	Discrete Mathematics	3	0	3	MATH 115
	PE 2	Rhythmic Activities	2	0	2	PE 1
	PGS 2	Personal Growth Session 2	3	0	0	
	Total		**19**	**12**	**20**	

FIRST YEAR – SUMMER

Grade	Cat. #	Descriptive Title	# of Hrs/Wk Lec	# of Hrs/Wk Lab	Units	Pre-Req
	NSTP 1	Nat'l Service Training Prog 1	3	0	3	
	NSTP2	Nat'l Service Training Prog 2	3	0	3	
	Total		**6**	**0**	**6**	

SECOND YEAR – FIRST SEMESTER

Grade	Cat. #	Descriptive Title	# of Hrs/Wk Lec	# of Hrs/Wk Lab	Units	Pre-Req
	RE 113	Christian Faith	3	0	3	RE 112
	GE 6	Science, Technology & Society	3	0	3	
	GE 7	Art Appreciation	3	0	3	
	MATH 200	Engineering Data Analysis	3	0	3	MATH 115
	MATH 226	Differential Equations	3	0	3	MATH 220
	EE-PC 210	Electrical Circuits 1	3	3	4	Phys212,213 Math220
	CPE-PC 210	Data Structures and Algorithms	0	6	2	CPE-PC 120
	PE 3	Recreational activities(individual &dual sports)	2	0	2	PE 1
	Total		**20**	**9**	**23**	

SECOND YEAR – SECOND SEMESTER

Grade	Cat. #	Descriptive Title	# of Hrs/Wk Lec	# of Hrs/Wk Lab	Units	Pre-Req
	RE 114	The Church	3	0	3	RE 113
	GE 1	Understanding the self	3	0	3	
	BES 223	Engineering Economy	3	0	3	2rd yr standing
	EAC 221	Electronic Circuits: Devices &Analysis	3	3	4	EE-PC 210
	CPE-PC 220	Numerical Methods	3	0	3	MATH 226
	CPE-PC 221	Software Design	3	3	4	CPE-PC 210
	PE 4	Team Sports	2	0	2	PE 1
	Total		**20**	**6**	**22**	

Prepared By: **ENGR. SHIELA A. SORIÑO, MEE**
Dean, College of Engineering & Technology

DR. JOSE DAGOC, JR., RN
Vice President for Academics

Noted By: **ENGR. JHAN JKEM B. FONTANILLA, MSCE**
Supervising Education Program Specialist

DR. MAXIMO C. ALJIBE, CESO III
Director IV, CHED Regional Office

THIRD YEAR – FIRST SEMESTER

Grade	Cat. #	Descriptive Title	# of Hrs/Wk Lec	# of Hrs/Wk Lab	Units	Pre-Req
	RE 115	Liturgy and Sacraments	3	0	3	RE 114
	IE-PC 313	Basic Occupational Safety and Health	3	0	3	3rd yr standing
	CPE-PC 310	Operating Systems	3	0	3	CPE-PC 210
	CPE-PC 311	Data and Digital Communications	3	0	3	EAC 221
	CPE-PC 312	Logic Circuits and Design	3	3	4	EAC 221
	CPE-PC 313	Introduction to HDL	0	3	1	CPE-PC 111, EAC 221
	CPE-PC 314	Fund. of Mixed Signals and Sensors	3	0	3	EAC 221
	CPE-PC 315	Computer Engineering Drafting and Design	0	3	1	EAC 221
	CPE-EC 1	Elective Course 1 – System and Network Administration 1	3	0	3	3rd yr standing
	Total		**21**	**9**	**24**	

THIRD YEAR – SECOND SEMESTER

Grade	Cat. #	Descriptive Title	# of Hrs/Wk Lec	# of Hrs/Wk Lab	Units	Pre-Req
	RE 116	Christian Morality	3	0	3	RE 115
	BES 320	Technopreneurship	3	0	3	3rd year standing
	CPE-PC 320	Methods of Research	2	0	2	Math 200, GE 5, CPE-PC 312
	CPE-PC 321	Computer Networks and Security	3	3	4	CPE-PC 311
	CPE-PC 322	Microprocessors	3	3	4	CPE-PC 312
	CPE-PC 323	Feedback and Control Systems	3	0	3	CPE-PC 220 EE-PC 210
	CPE-PC 324	CpE Laws and Professional Practice	2	0	2	3rd year standing
	CPE-EC2	Elective Course 2 - System and Network Administration 2	3	0	3	CPE-EC1
	Total		**22**	**6**	**24**	

THIRD YEAR – SUMMER

Grade	Cat. #	Descriptive Title	# of Hrs/Wk Lec	# of Hrs/Wk Lab	Units	Pre-Req
	CpE 400	On the Job Training	2	3	3	4thyr standing
	Total		**2**	**3**	**3**	

FOURTH YEAR – FIRST SEMESTER

Grade	Cat. #	Descriptive Title	# of Hrs/Wk Lec	# of Hrs/Wk Lab	Units	Pre-Req
	GE 2	Readings in Philippine History	3	0	3	
	GE 8	Ethics	3	0	3	
	EAC 410B	Environmental Science &Eng'g	2	0	2	
	CPE-PC 410	CpE Practice and Design 1	0	3	1	CPE-PC 322, CPE-PC 323
	CPE-PC 411	Embedded Systems	3	3	4	CPE-PC 322
	CPE-PC 412	Computer Architecture and Organization	3	3	4	CPE-PC 322
	CPE-PC 414	Digital Signal Processing	3	3	4	CPE-PC 323
	CPE-EC3	Elective Course 3 - System and Network Administration 3	3	0	3	CPE-EC2
	Total		**20**	**12**	**24**	

FOURTH YEAR – SECOND SEMESTER

Grade	Cat. #	Descriptive Title	# of Hrs/Wk Lec	# of Hrs/Wk Lab	Units	Pre-Req
	GE 4	Contemporary World	3	0	3	
	GE 11	Filipino saiba'tibangdisiplina	3	0	3	
	GE 13	Sosyedad at literatura/panitikangpanlipunan	3	0	3	
	CPE-PC 420	CpE Practice and Design 2	0	6	2	CPE-PC 410
	CPE-PC 421	Emerging Technologies in CpE	3	0	3	4th year standing
	CPE-PC 422	Seminars & Field Trips	0	3	1	4th year standing
	GE 9	Life & works of Rizal	3	0	3	
	Total		**15**	**9**	**18**	
		Overall Total	**174**	**78**	**190**	