Proposed Curriculum for

MASTERS of SCIENCE in ELECTRONICS ENGINEERING
(MS EcE)

PRINCIPLE

The MS in Engineering focuses on innovative research in the fields of modern communications, biomedical engineering, energy harvesting, and instrumentation. To make the Philippines successful in global competition in high technology requires innovation and entrepreneurship in the emerging technical fields that have commercial potential. Innovating new products, services and systems is increasingly a multi-disciplined endeavor. A strong science based preparation with Engineering subjects is ideal for this course of study. The University provides an excellent opportunity for inter-disciplinary research, with various segments of SOSE contributing new problems and solutions where the graduates can apply their core skills. Students are encouraged to blend core classes, elective classes throughout the University, and directed research into a coherent program. The thesis required of all students must demonstrate innovative contributions to the technical community and mastery of a portfolio of projects.

The incoming students are assumed to have a specified level of expertise in the basic math and science courses, familiarity with computers (as a utility, for programming, in networking using software and hardware configurations, etc).

Course/Research Work	**units**
Required Core Courses	6
Electives	9
Research Seminars	6
Graduate Colloquium	3
Thesis	6

Total	**30**

Pre-Requisite:

Engineering Math (EngMa101, 102, 103) or equivalent
Circuits (Elc 101 and 106 or Ps 141) or equivalent
Electronics (Elc 102 and Elc 107 or Ps 142) or equivalent

COURSE MATRIX

Prerequisites				
Basic/Required	EcE201Advance Digital Design			
	EcE280VLSI Design I			
Research Seminars	EcE 301Research Seminar I	EcE 302 Research Seminar II		
Electives	EcE 303 Research Seminar III	EcE 304Research Seminar IV	EcE 306Graduate Seminar	
	EcE298 Emerging Technologies in Computer Engineering	EcE295 Special Topics	EcE 291 Projects I	EcE 292 Projects II
	EcE241: Logic Circuit Synthesis and Optimization	EcE242: Digital System Testing		
	EcE281: VLSI Design II	EcE 230: Digital Integrated Circuit Design	EcE270: Computer Organization	Other Graduate Related Courses
Graduate Colloquium	EcE308.1 Graduate Colloquium I	EcE308.2 Graduate Colloquium II	EcE308.3 Graduate Colloquium III	
Thesis	Thesis I, II	Thesis I, II	Thesis I, II	
	Thesis Defense	Thesis Defense	Thesis Defense	

FACULTY

Rosula S.J. Reyes, Ph.D., Reg. ECE
Ph. D., University of Santo Tomas
Microelectronics
ECCE Chair

Nathaniel Joseph C. Libatique, Ph.D .
University of New Mexico
Optical Communications

Gregory Tangonan, Ph.D.
California Institute of Technology
Wireless Communications, MEMS

Benjamin O. Chan, Ph.D.
University of New South Wales
Materials Science and Engineering

Celso B. Co, Ph.D. , Reg. ECE
De La Salle University
Power Electronics

Luisito Agustin, Ph.D.
University of the Philippines
Digital Signal Processing

Carlos M. Oppus, MS, Ph.D. Candidate
Ateneo de Manila University
Instrumentation and Control

Jose Claro Monje, MSEE, Ph.D. Candidate
University of the Philippines
Computers and Communication Systems

Ma.Leonora Guico, MS
Reg. ECE
University of Santo Tomas
Telecommunications

Others (handling electives):
Dr. Raffy Saldana, Ph.D. Mathematics
Dr. Reese Macabebeb, Ph.D. Photovoltaic