

## DOCTOR OF PHILOSOPHY IN ELECTRICAL ENGINEERING

### Curriculum Structure

#### The PhD Program (Total 60 Cr Hrs)

Curriculum Component	Number of Courses	Total Number Cr Hrs
Core Courses	5	15
Elective courses	4	12
Thesis	1	33
<b>Total:</b>	<b>10</b>	<b>60</b>

#### Electrical Engineering Thesis Requirement (33 Cr Hrs)

Thesis course	
Course ID	Course Title
DENG 899	PhD Thesis

#### Core Required Courses (15 Cr Hrs)

Core Requirements (6 Cr Hrs)	
Course ID	Course Title
DENG 602	Applied Research Methodology
DENG 621	Graduate Seminar
Core Requirements sub-package (9 Cr Hrs)	
DENG 603	Advanced Numerical Analysis
DENG 604	Applied Statistics Techniques
DENG 624	Innovation and Technology Management
DENG 625	Sustainable Development
DENG 626	Modeling and Simulation

#### Concentration in Electrical Engineering (12 Cr Hrs)

Elective courses	
Course ID	Course Title
ELEC 653	Advanced Topics in Power Electronics
ELEC 654	Advanced Topics in Machines and Drives
ELEC 655	Advanced Topics in Control System Theory
ELEC 656	Advanced Digital Communication
ELEC 657	Biomedical Signal Processing & Diagnostics
ELEC 658	Medical Imaging
ELEC 659	Communication and Information Theory
ELEC 660	Communication Networks
ELEC 661	Power System Dynamics & Control
ELEC 662	Advanced Digital Signal Processing
ELEC 751	Advanced Special Topics I
ELEC 752	Advanced Special Topics II
ELEC 753	Time-Frequency Signal Processing

### STUDY PLAN

#### FIRST SEMESTER (9Cr Hrs)

Term	Course #	Course Title	Cr Hrs
Fall	DENG 602	Applied Research Methodology	3
	DENG XXX	Core Required Course I	3
	ELEC XXX	Concentration Elective Course I	3
Total			9

#### SECOND SEMESTER (9 Cr Hrs)

Term	Course #	Course Title	Cr Hrs
Spring	DENG 621	Graduate Seminar	3
	DENG XXX	Core Required Course II	3
	ELEC XXX	Concentration Elective Course II	3
Total			9

#### THIRD SEMESTER (9 Cr Hrs)

Term	Course #	Course Title	Cr Hrs
Fall	DENG XXX	Core Required Course III	3
	ELEC XXX	Concentration Elective Course III	3
	ELEC XXX	Concentration Elective Course IV	3
Total			9

#### FOURTH SEMESTER (9 Cr Hrs)

Term	Course #	Course Title	Cr Hrs
Spring	DENG 899	PhD Thesis	9
Total			9

#### FIFTH SEMESTER (12 Cr Hrs)

Term	Course #	Course Title	Cr Hrs
Fall	DENG 899	PhD Thesis	12
Total			12

#### SIXTH SEMESTER (12 Cr Hrs)

Term	Course #	Course Title	Cr Hrs
Fall	DENG 899	PhD Thesis	12
Total			12