Academic Programs Booklet

College of Science

2020

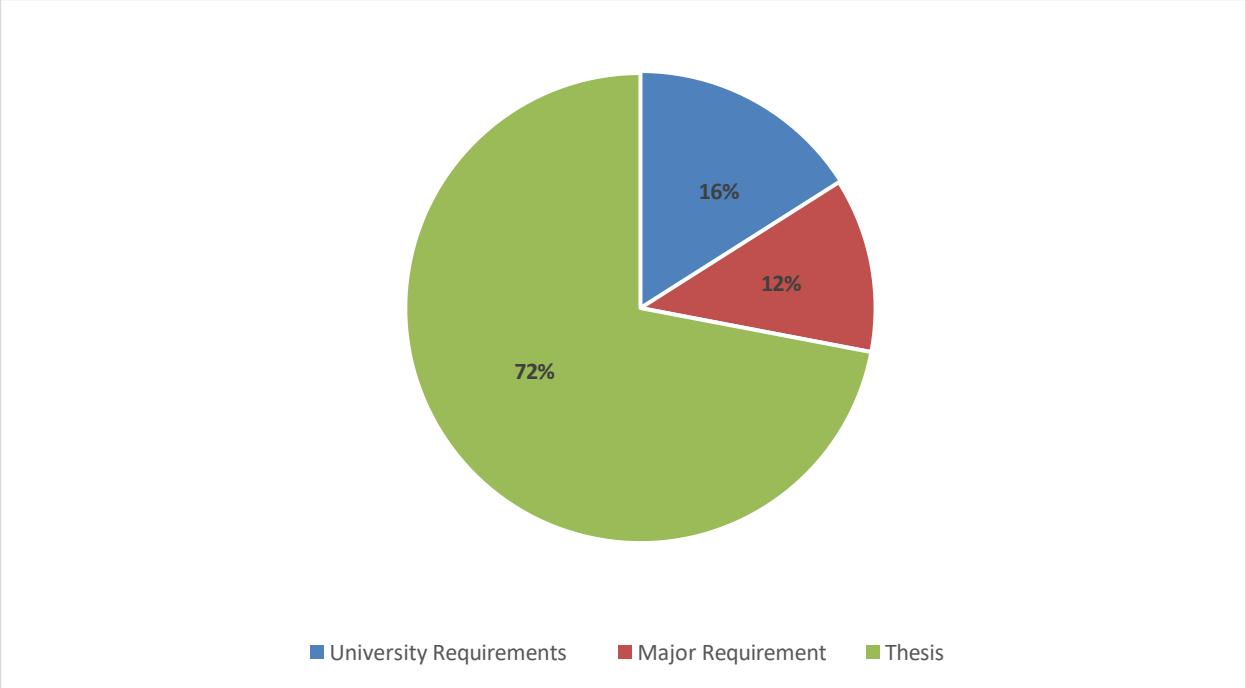
Prepared By: VP For Academic Programs and Graduate Studies Office

College of Science

Table of Contents

Doctor of Philosophy in Environment and Sustainable Development (2020)

Program Components



Course Type	CRD
University Requirements	12
Major Requirement (MR)	9
Thesis	54
Total Credit (CRD)	75

Teaching Language: English

Detailed Study Plan

Year 1- Semester 1

Course Code	Course Title	Course Hours			Course Type	Pre-Requisite	Major GPA
		LEC	PRAC	CRD			
ESD 791	Applied Research Methods	3	0	3	UR	-----	Yes
ESD 792	Applied Statistical Methods	3	0	3	UR	-----	Yes
ESD 795	Sustainable Development Goals I	3	0	3	MR	-----	Yes

Year 1- Semester 2

Course Code	Course Title	Course Hours			Course Type	Pre-Requisite	Major GPA
		LEC	PRAC	CRD			
ESD 793	Special Topics and Readings	3	0	3	UR	-----	Yes
ESD 794	Graduate Seminar	3	0	3	UR	-----	Yes
ESD 701	Environment and Sustainability	3	0	3	MR	-----	Yes

Year 2- Semester 3

Course Code	Course Title	Course Hours			Course Type	Pre-Requisite;	Major GPA
		LEC	PRAC	CRD			
ESD 702	Environment and Sustainability Assessment	3	0	3	MR	-----	Yes
ESD 798	Thesis	0	0	9	Thesis	-----	No

Year 2- Semester 4

Course Code	Course Title	Course Hours			Course Type	Pre-Requisite	Major GPA
		LEC	PRAC	CRD			
ESD 798	Thesis	0	0	9	Thesis	--------	No

Year 3- Semester 5

Course Code	Course Title	Course Hours			Course Type	Pre-Requisite	Major GPA
		LEC	PRAC	CRD			
ESD 798	Thesis	0	0	9	Thesis	--------	No

Year 3- Semester 6

Course Code	Course Title	Course Hours			Course Type	Pre-Requisite	Major GPA
		LEC	PRAC	CRD			
ESD 798	Thesis	0	0	9	Thesis	--------	No

Year 4- Semester 7

Course Code	Course Title	Course Hours			Course Type	Pre-Requisite	Major GPA
		LEC	PRAC	CRD			
ESD 798	Thesis	0	0	9	Thesis	--------	No

Year 4- Semester 8

Course Code	Course Title	Course Hours			Course Type	Pre-Requisite	Major GPA
		LEC	PRAC	CRD			
ESD 798	Thesis	0	0	9	Thesis	--------	No

Course Description

Course Code: ESD 701 **Course Title:** Environment and Sustainability
Foundations of environment and sustainability, biosphere and ecosystem, interlinkages between humans and the environment, global environmental issues, environmental sustainability of natural resources, aspects of sustainability in the context of economic, social and environment nexus.

Course Code: ESD 702 **Course Title:** Environment and Sustainability Assessment
Principles, procedures and applications of environment and sustainability assessment approaches and processes. Environmental Impact Assessment (EIA), Strategic Environmental Assessment (SEA), Integrated Environmental Assessment (IEA), and Sustainability Assessment (SA). Environmental policies analysis, environmental reporting and follow up.

Course Code: ESD 791 **Course Title:** Applied Research Methods
This course covers basic and applied research methods that study development of research objectives, research design, sampling, quantitative and qualitative analysis, and evaluation research. Emphasis on research methods including survey and group techniques. Development of practical and analytical skills using software for quantitative and qualitative data analysis.

Course Code: ESD 792 **Course Title:** Applied Statistical Methods
This applied course in designed for graduate students. The goals of the course are to develop the skills necessary to identify an appropriate statistical technique, estimate models, analyze data, and interpret result for independent research and to critically evaluate contemporary research using advanced quantitative methods. The course will include descriptive and inference statistics, hypothesis testing, confidence intervals, processing and analysis of research data using different parametric and nonparametric statistical methods, regression analysis for linear and nonlinear models, and introduction to the design of experiments. Topics will be demonstrated/implemented using statistical software packages such as SPSS.

Course Code: ESD 793 **Course Title:** Special Topics and Readings
This course aims at developing doctoral graduate students knowledge about contemporary issues related to environment. The course covers the basics and modern theories that explain their subject students, trains them to read articles and modern studies in their specialization field, and to be trained to address one of the contemporary issues in their specialization, and to write scientific review article using references related to the topic.

Course Code: ESD 794 **Course Title:** Graduate Seminar
This course aims at training doctoral graduate students to prepare seminars on selected environmental contemporary topics in the area of their research problems. It enhances the students' understanding of research in environment to allow them to develop a framework for further learning about how to do research, the ability to present and lecture in critical analysis of material.

Course Code: ESD 795 **Course Title:** Sustainable Development Goals I
Historical introduction, background and description of the SDGs and the Agenda 2030, with a focus on identifying and describing the existing policies for generating an enabling ecosystem for the SDGs, as well as an approach to understanding success implementing programs to achieve the SDGs and results achieved, with a special focus on environment-related SDGs.

Course Code: ESD 798 **Course Title:** PhD Thesis
The Ph.D. thesis in Environment and Sustainable Development should qualify to be research of international standard and for other work in society where there are high demands on scientific insight and analytical thinking, in accordance with recognized scientific principles and standards in research ethics. The research should also be eligible to be published in international peer reviewed journals.