

**Electrical Engineering Graduate Program  
System Dynamics & Control (SDC)  
Concentration Degree Plan**

Name: \_\_\_\_\_ Student number: \_\_\_\_\_

An EE graduate student interested in a master's degree with SDC concentration must submit this SDC concentration degree program plan, to the ECE office, according to the deadlines and course requirements listed on the back of this form. Your academic advisor must approve and sign this form prior to submission. Changes to your degree plan can be made by submitting an updated form, approved by your academic advisor.

Below, list required Core, Math, Area, Breadth and independent study / thesis option courses in the order in which you plan to take them, making note of prerequisites. See the course lists on the back of this form.  
ECE office fax: 610-519-4436. ECE office phone: 610-519-4970.

Semester	Year	Course	Name	Prerequisite	C	MA	A	B	IT
1. F S M	_____	_____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. F S M	_____	_____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. F S M	_____	_____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. F S M	_____	_____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. F S M	_____	_____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. F S M	_____	_____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. F S M	_____	_____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. F S M	_____	_____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. F S M	_____	_____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. F S M	_____	_____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Total number of courses:

<input type="checkbox"/> Thesis option	2	1	3	1	3
<input type="checkbox"/> Non thesis w/independent study	2	1	3	2	1
<input type="checkbox"/> Non thesis w/o independent study	2	1	3	3	0

Academic Adviser Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**Abbreviations:**

F	Fall Semester	MA	Math Course Requirement
S	Spring Semester	A	Area Course Electives
M	Summer Semester	B	Breadth Course Electives
C	Core Course Requirements	IT	Independent Study & Thesis

**Electrical Engineering Graduate Program  
System Dynamics & Control Concentration  
Degree Plan**

**Information page:**

**Degree Requirements**

Ten courses (30 credits) are required to complete a Master's in Electrical Engineering with an SDC concentration.

**Required Core Courses:**

EGR 8301: Control Systems Engineering

EGR 8302: Digital Control

**And at least one Math option from:**

ECE 8001: Engineering Math I

ECE 8007: Matrix Theory

ME 7000: Advanced Engineering Analysis

**Area Courses (at least 3 courses from):**

EGR 8304: Nonlinear Control

EGR 8305: System Identification

EGR 8306: Nonlinear Dynamics

EGR 8308: Feedforward Control

ECE 8400: Neural Network and Fuzzy Systems

EGR 8309: Advanced Topics in Dynamics & Control

**Thesis Option Courses:**

ECE 9030: Independent Study

ECE 9031: Research I

ECE 9032: Research II

**Breadth Courses:**

Additional courses may be selected with the approval of your advisor to complement those above and to support your professional interests.

**General:** The degree plan must meet general departmental requirements for graduation as well as the specific SDC concentration requirements detailed above and on the SDC concentration web page.

**Academic Advisor:**

<u>Name</u>	<u>Telephone</u>	<u>E-mail</u>	<u>Office</u>
James Peyton Jones	610-519-4216	<a href="mailto:james.peyton-jones@villanova.edu">james.peyton-jones@villanova.edu</a>	T422

The following are deadlines for the SDC concentration degree plan submissions:

Full and part time MSEE students – by midterm of his/her first semester;

5 year BS/MS students – before registering for any course to be counted towards the MSEE degree.