

# Electrical Engineering Graduate Program Microelectronics & VLSI (M-VLSI) Concentration Degree Plan

1-31-2011

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

An ECE graduate student interested in a Masters Degree M\_VLSI concentration must submit this M-VLSI concentration degree program plan, to the ECE office, according to the deadlines listed on the information page on the back of this form. Your academic advisor must approve and sign this form prior to submission. See the information page on the back for a discussion on establishing your academic advisor. Changes to your degree plan can be made by submitting an updated form, approved by your academic advisor.

Below, list Area (including Track), Breadth and Independent Study & Thesis 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	M	A	B	IT
1. F S M	_____	<u>ECE7500</u>	<u>Fund Solid State Elec.</u>	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. F S M	_____	<u>ECE8460</u>	<u>VLSI Design</u>	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. F S M	_____	_____	<u>TRACK Required</u>	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. F S M	_____	_____	<u>TRACK Required</u>	_____	<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 must be at least    | 4 | 0 | 1 | 2 | 3 |
| <input type="checkbox"/> Nonthesis option must be at least | 4 | 0 | 1 | 5 | 0 |

Academic Adviser signature: \_\_\_\_\_ Date: \_\_\_\_\_

**Abbreviations:**

- |   |                          |    |                              |
|---|--------------------------|----|------------------------------|
| F | Fall semester            | M  | Math course requirement      |
| S | Spring semester          | A  | Area course electives        |
| M | Summer semester          | B  | Breadth course electives     |
| C | Core course requirements | IT | Independent study and Theses |

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## Information Page:

Core Courses: ECE7500, ECE8460 for all students in the M-VLSI concentration. In addition, two additional core courses are required depending on the M-VLSI track that students wish to follow:

Digital Systems	Analog/Mixed Signal/RF
ECE8440	ECE8560
ECE8455	ECE8566

In addition to the 4 required core courses, students are required to take at least one of the area courses listed below.

Area Courses: ECE7505, ECE7545, ECE7550, ECE7590, ECE 8425, ECE8445, ECE8448.

Breadth Courses: should be selected to complement M-VLSI core and area courses such that your degree supports your professional interests.

Math Courses: N/A

Academic Advisor: Students who select the M-VLSI concentration must work with their academic advisor (for a research assistants their research advisor) to prepare and submit an approved degree plan. The academic advisor must be a full time faculty member who teaches courses in the M-VLSI area. Dr. Xiaofang Wang is the default Academic Advisor for the M-VLSI concentration in the Digital Systems track and Dr. Mark Jupina is the default advisor for the Analog/Mixed Signal/RF track. Any student interested in the M-VLSI concentration is encouraged to meet with one of these advisors until a permanent academic advisor has been established.

Full time ECE faculty who regularly serve as academic advisors for the M-VLSI concentration are:

<u>Name</u>	<u>Telephone</u>	<u>E-mail</u>	<u>Office</u>
Robert Caverly	5660	robert.caverly@villanova.edu	T433
Mark Jupina	7561	mark.jupina@villanova.edu	T430
Xiaofang Wang	3830	xiaofang.wang@villanova.edu	T431
Pritpal Singh	4970	pritpal.singh@villanova.edu	T411

Concentration Requirements: The degree plan must meet general departmental requirements for graduation, and the specific M-VLSI concentration requirements detailed above and on the M-VLSI concentration Web page, which is accessed as follows: go to

<http://www.villanova.edu/engineering/departments/electrical/graduate/masters/MSEE.htm>

and select the "Microelectronics and VLSI" MSEE Specialty Area link.

The following are deadlines for the M-VLSI concentration degree plan submission: full time students - before registering for their first semester; part time students – before registering for their first semester; 5 year BS/MS students – before registering for fall semester senior year.