NORTH CAROLINA STATE UNIVERSITY
DEPARTMENT OF ELECTRICAL & COMPUTER ENGINEERING
GRADUATE OFFICE

MS-EE, MS-CPE

(MS-CNE use CNE form)
APPOINT ADVISORY COMMITTEE AND CREATE PLAN OF GRADUATE WORK
(Form 2/1/08)

Date: _____

_____   _____   _____   _____
Last Name   First   Middle   ID Number

E-mail: _____   Degree Sought ____MS-EE ____ MS-CPE

Accelerated BS/MS   yes____ no _____   If ABM give BS graduation date _____

School _____*ENGINEERING*_____   Date Expected _____ _____
                                                                                                    Month   Year

Title / Subject of Thesis   _____

_____

Approved for the Department by: _____
                                                         Director of Graduate Programs

Advisory Committee

_____   _____
Print Full Name   Signature (Chair)

_____   _____
Print Full Name   Signature (Co-chair, if any)

_____   _____
Print Full Name   Signature (Minor Representative)

_____   _____
Print Full Name   Signature (Member)

_____   _____
Print Full Name   Signature (Member)

_____   _____
Print Full Name   Signature (Member)

DO NOT WRITE BELOW THIS LINE
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Comments / Notes:

entered: Jay Baliga

Sample Master POW (with thesis) with focus on Power Semiconductor Device

ECE COURSES 21 hours coursework required, maximum 6 hours 695				
Course Prefix/Number	**Major Track (EE, CPE)**	**Credits**	**Semester**	**Grade**
ECE592A (Power electronics)	**EE**	**3**	**F1**	
ECE511 (Analog IC)	**EE**	**3**	**F1**	
ECE538 (Integrated Circuits and Fabrication)	**EE**	**3**	**F1**	
ECE553 (Power Semiconductor)	**EE**	**3**	**S1**	
ECE531 (Principles Of Transistor Devices)	**EE**	**3**	**S1**	
ECE 695 (Thesis Research)	**EE**	**3**	**S1**	
ECE 722* Electronic Properties of Solid-State Materials AND/OR **ECE 528 Semiconductor Characterization**	**EE**	**3**	**F2**	
ECE733* (Digital Electronics)	**CPE**	**3**	**S2**	
ECE 792E* Advanced Power Electronics: Three-Phase Converter Modeling & Control	**EE**	**3**	**S2**	
ECE 695 (Thesis Research)	**EE**	**3**	**F2 or S2**	

*: indicate advanced courses

NON-ECE Courses				
Course Prefix/Number	**Minor – check if minor area**	**Credits**	**Semester**	**Grade**

entered: Jay Baliga

Master of Science
GRADUATE PLAN OF WORK Requirements

1. The MS degree requires at least 30 credit hours. The MS program requires both breadth and depth.
2. Breadth is obtained by at least one course from each of three (3) specialty areas in see Table 1.
3. Depth is achieved by taking at least two **advanced graduate level** courses from the list of advanced courses in Table 1. At least one of the advanced courses must come from the major track (EE or CPE). For thesis MS students, ECE695 counts as an advanced course.
4. The major, EE or CPE, is obtained by taking **five (5)** courses from major track from the entire list of courses in ECE. At least one of the advanced courses must come from the major track. Three hours of thesis can be credited as one course in the major. Only one course in the major track is subject to this substitution.
5. The student must take 21 hours of ECE courses, 18 hours must be graded, i.e., only one S/U course allowed, (ECE633, 634, 682), exclusive of ECE695. ECE695 cannot be used for credit by non-thesis students.
6. Maximum six(6) hours of ECE695 is allowed for MST students – an MST student may have up to nine hours of S/U, e.g., 6 hours ECE695 + 3 hours ECE633.
7. Up to nine hours of graduate-level (500,700) courses outside of ECE may be taken. At most one senior-level (400) course may be included in these nine hours. These courses must be part of a unified plan of study for an advanced ECE degree. These courses should be taken with prior approval of the director of graduate programs or the ECE Graduate Studies Committee.
   (As a guideline, note that the common graduate-level, technical courses in CSC, MA, STAT, PHYS, CH, or any engineering department are acceptable. BUS courses that are listed for the CNE program are acceptable. Substitutions for BUS courses require prior approval. It is wise to check with the graduate office before taking courses outside of the above mentioned areas.)
8. Examples for plans of work for various areas can be found at
   http://www.ece.ncsu.edu/academics/grad/plans/.

TABLE 1: Specialty areas and Advanced courses	
Specialty	**Course Numbers**
Computer Architecture (CPE)	ECE506 (FS) ECE521(FS), ECE561(S), ECE721(FE), ECE743(F), ECE747(S), ECE748(706)(F)
Software (CPE)	ECE 517(F), ECE 566(S)
VLSI Systems (CPE)	ECE 520(S), ECE746(F), ECE 704(FS-Sum), ECE 741(S), ECE745(F),ECE761(S)
Networking(CPE)	ECE 570(FS), ECE573(FS), ECE574(FS), ECE575(S), ECE 576(FS), ECE579(FS), ECE773(S), ECE774(S), ECE775(F),ECE 776(S), ECE 777(F), ECE779(S)
Circuits (EE)	ECE703(F), ECE 711(F), ECE718(S), ECE 733(S)
Microwave Circuits and Applied Electromagnetics (EE)	ECE 740(S), ECE549(F), ECE719(F), ECE732(S)
Communications (EE)	ECE715(S), ECE791W (F), ECE 751(S), ECE752(SO),ECE 762(F),ECE766(S),ECE767(SE)
Signal Processing and Computational Intelligence (EE)	ECE 713(F), ECE742 (S), ECE559(FE), ECE763(SO)
Robotics, Mechatronics, Control & Instrumentation (EE)	ECE555(S), ECE755(F) ECE556 (F), ECE522(525) (F), ECE 716(S), ECE 726(SE)
Power Electronics and Power Systems (EE)	ECE734 (F), ECE 736(F), ECE750(FE), ECE753(SE) ECE792P (SO), ECE792S (SE),
Nanoelectronics and Photonics (EE)	ECE523(S), ECE 730*(F), ECE731(F), ECE738(F), ECE757(F), ECE 722(F), ECE 723(SO), ECE 724(S) * Required for students majoring in nanoelectronics and photonics.
Advanced Graduate Courses (EE)	695,718, 719, 722, 723, 724, 725, 726, 732, 733, 742, 751, 752, 753, 755, 762, 763, 766, 767, 792P, 792S
Advanced Graduate Courses(CPE)	695,704, 721, 741, 743, 745, 746, 748(706), 761, 773, 774, 775, 776, 777, 779
Key to course offerings: F- fall, S – spring, FS – both fall and spring, FO – fall odd years, FE – fall even years, SO – spring odd years, SE – spring even years, Sum – summer, for courses that have an inconsistent history, we have noted the last time it was offered.	