SYNOPSIS OF THE B.S. CURRICULUM IN ELECTRICAL AND COMPUTER ENGINEERING

FOURTH (FRESHMAN) CLASS

First Semester

	Subject	Semester Hrs. Credit
EE 111-115	Intro Modules in ECE (1 credit each)	5
WR 101	English Composition I*	3
HI 103	World History	3
MA 123	Calculus I*	3
PE 105/102	Wellness Concepts or Boxing	1/2
	AS, MS, or NS	1
TOTAL		**15 1/2**

Second Semester

	Subject	Semester Hrs. Credit
EE 122	DC Circuits*	3
EE 129	Introduction to Digital Logic Circuits*	3
WR 102	English Composition II*	3
HI 104	World History	3
MA 124	Calc. II*	3
PE 105/102	Wellness Concepts or Boxing	1/2
	AS, MS, or NS	1
TOTAL		**16 1/2**

THIRD (SOPHOMORE) CLASS

First Semester

	Subject	Semester Hrs. Credit
EE 223	Elec. Cir. Analysis	4
EE 228	Digital Systems Design	3
MA 215	Calc. with An. Geom. III	4
MA 311	Elem. Diff. Equations	3
CS 340	Programming	3
PE 101/300	Swimming or Prin. of Physical Cond.	1/2-1
	AS, MS, or NS	1
TOTAL		**18 1/2-19**

Second Semester

	Subject	Semester Hrs. Credit
MA 220	Prob. & Stat. for Engineers	3
EE 230	Signal & Systems Analysis.	3
EE 255	Electronics	4
CS 422	C++ & Object Oriented Programming	3
CS 221	Discrete Mathematics I	3
PE 101/300	Swimming or Prin. of Physical Cond.	1/2 -1
	AS, MS, or NS	1
TOTAL		**17 1/2 -18**

SECOND (JUNIOR) CLASS

First Semester

	Subject	Semester Hrs. Credit
EE 381	Automatic Control Systems	3
EE 328	Computer Architecture	3
EE 356	Electronic Appl & Interface	3
PY 160	General Physics I	3
PY 155	General Physics I Lab	1
PE	Elective.	1/2
PS 344	Leadership in Organizations	3
	AS, MS, or NS	2
TOTAL		**18 1/2**

Second Semester

	Subject	Semester Hrs. Credit
EE 321X	Systems Design I	3
EE 339	Microcontrollers	4
EE 372W	Electronic Communications	4
PY 161	General Physics II	3
PY 156	General Physics II Lab	1
SE 300	Public Speaking	1
PE	Elective	1/2
	AS, MS, or NS	2
TOTAL		**18 1/2**

FIRST (SENIOR) CLASS

First Semester

	Subject	Semester Hrs. Credit
EE 422	Systems Design II	3
EE 431	Dig. Signal Proc.	4
EE 470	Seminar	1
	Electrical and Computer Eng. Elective	3
EE 420	Green Energy Power Conditioning	3
	AS, MS, or NS	2
TOTAL		**16**

Second Semester

	Subject	Semester Hrs. Credit
EE 445	Computer Networks	3
EE 471W	ECE Hardware Design Prep	1
	ECE Elective	3
	Civilization & Cultures Elective	3
	Math/Sciences Elective	3
	Physical Education Elective	1/2
	AS, MS, or NS	2
TOTAL		**15 1/2**

Total Hours: 137 (includes 66 hours of electrical and computer engineering)

***Minimum Grade of C Required.**

Beginning with the Class of 2010, PS 344 (Leadership in Organizations) is a required course for all VMI cadets. This synopsis reflects a proposed placement of this course and other adjustments of the major curriculum that are tentative pending approval of the Academic Board.