

# Computer Engineering Curriculum (2003)

## School of Engineering Department of Computer Engineering Jackson State University Curriculum Sheet

Major Computer Engineering		Degree Bachelor of Computer Engineering	
<u>FRESHMAN YEAR</u>		<u>FALL</u>	<u>SPRING</u>
MATH 231__, 232__	Calculus I and II	3	3
MATL 231__, 232__	Calculus I and II Labs	1	1
ENG 104__, 105__	Composition and Literature	3	3
HIST 101__, 102__	History of Civilization	3	3
EN 105	Programming for Engineers		3
CHEM 141__, CHML 141__	General Chemistry I & Lab	4	
UNIV 100__	Concepts for Success in College	2	
PHY 211__, PHYL 211__	General Physics I and Lab	—	5
		16	18
<u>SOPHOMORE YEAR</u>			
MATH 233__, MATL 233__	Calculus III & Lab	4	
PHY 212__, PHYL 212__	General Physics II & Lab	5	
CSC 119__, CSCL 119__	Object Oriented Programming	4	
EN 212__	Digital Logic	3	
EN 222__	Eng Mechanics I	3	
ENL212	Digital Logic Lab		1
MATH 368__	Ordinary Differential Equations I		3
EN 223__	Eng Mechanics II		3
ENG__	English Option		3
EN 220__, ENL 220__	Circuit Theory & Lab		4
EN 201__	Engineering Graphics		2
EN 240__	Strength of Materials	—	3
		19	19
<u>JUNIOR YEAR</u>			
CPE 315__	Synthesis with HDL	3	
MATH 355__	Probability & Statistics	3	
EN 250__, ENL 250__	Linear Systems and Lab	4	
CSC 225__	Discrete Structure	3	
CPE 312__, CPEL 312__	Computer Organization & Lab	4	
SPCH__	Speech Option		3
CSC 228__	Data Structures & Algorithms		4
CPE 360__	Embedded Microprocessor Systems		3
EN 350__	Engineering Systems Clinic		3
CPE 330__, CPEL330__	Electronics and Lab	—	4
		17	17
<u>SENIOR YEAR</u>			
CPE 490__	Capstone Design I	2	
CSC 325__	Operating Systems	3	
EN 355	Engineering Economy	3	
CPE__	Tech Elective	3	
PHIL__	Philosophy Option	3	
CPE 491__	Capstone Design II		3
CPE__	Tech Elective		3
CPE__	Tech Elective		3
ART__	Fine Arts Option	—	3
		14	12

**Total Hours: 132**

Grade "C" or better is required for all courses.

**Technical Electives:**

- CPE 430 Digital VLSI Design.
  - CPE 431 Digital Systems Testing.
  - CPE 440 Communications Systems.
  - CPE 441 Computer Networks.
  - CPE 451 Digital Signal Processing.
  - CPE 492 Special Studies in CPE
  - CPE 493 Special Topics in CPE.
- Other courses require Chair’s approval.

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Since the Department has introduced a new curriculum in 2006. The following courses are no longer required in the new curriculum:

- EN 223 (3) Engineering Mechanics II
- EN 240 (3) Strength of Materials
- EN 220 (3) Linear systems
- EN 250 (3) Engineering Systems Clinic

Students who are following this 2003 curriculum have the option of substituting one or more of the above courses by one or more of the following course:

- CPE 412 (3) Computer Architecture
  - CPE 441 (3) Computer Networks
  - CPE 351 (3) Signals and systems
  - EN 252 (3) Engineering Analysis
- Other course with the approval of the Department.

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**Speech Options**

- SPCH 201 Speech Arts
- SPCH 300 Introduction to Organization Communication
- SPCH 334 Argumentation and Debate
- SPCH 335 Persuasion
- SPCH 430 Small Group Discussion

**Philosophy Options**

- PHIL 301 Introduction to Philosophy
- PHIL 416 Logic
- PHIL 308 Aesthetics
- PHIL 309 Ethics

**Humanities And Fine Arts**

- ART 206 Art Appreciation
  - MUS 205 Music Appreciation
  - DR 201 Introduction to Drama
  - ENG 201/202 Humanities
  - ENG 205 World Literature
  - FR 101/102 Elementary French
  - FR 201/202 Intermediate French
  - FR 213 French Phonetic Reading
  - SP 101/102 Elementary Spanish
  - SP 201/202 Intermediate Spanish
- \*Note-students may take the equivalent of any foreign language the University offers.

**English Options**

- ENG 213 Professional Writing
- ENG 206 Literature of Science
- ENG 205 World Literature

**Additional Requirements**

ENG 002 Required for students with an ACT English subtest score of 16 or less. Strongly encouraged for students with English subtest score of 19 or less.

MATH 004 Required for students with an ACT Mathematics subtest score of 16 or less. Strongly encouraged for students with Mathematics subtest score of 19 or less.

RE 002 Required for students with an ACT Reading subtest score of 16 or less. Strongly encouraged for students with Reading subtest score of 19 or less.

GNST 101,102 Required for students taking two or more intermediate courses. Students in the Academic Support Program will not be permitted to take more than 15 semester hours, including intermediate courses and the Academic Support Program.

Note: (a) Students who transfer 12 or more hours of college credit are exempt from UNIV 100. (b) Students are required to take the Mathematics Placement Test to determine if they need to take any math courses before taking Math 231-Calculus I.

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## Pre-requisites Flow Chart for required Courses

