APPENDIX A– THE PROPOSED COMPUTER ENGINEERING CURRICULUM (SEQUENTIAL LISTING BY AREA)

Computer Engineering Core Courses

EECE-200	*Introduction to Computer Engineering (New Course)*	3
EECE-202	Network Analysis	3
EECE-204	Introduction to Electrical Engineering Laboratory	1
EECE-206	*Introduction to Computer Engineering Laboratory (New Course)*	1
EECE-303	Electromagnetic Theory I	3
EECE-307	Electronics I Laboratory	2
EECE-311	*Digital Systems Design (ELEG 311 upgraded)*	3
EECE-315	Electronics I	3
EECE-317	*Digital Systems Design Laboratory (New Course)*	2
EECE-321	*Probability and Statistics for Engineers (New Course replacing Signals & Systems I)*	3
EECE-322	*Signals & Systems (Revised Signals & Systems I)*	3
EECE-350	*Operating Systems for Engineers*	3
EECE-401	Senior Design Project I (Fundamentals of Design & Applications)	3
EECE-404	Senior Design Project II (Senior Thesis Design)	3
EECE-406	*Advanced Digital Systems Design (ELEG 412, revised & upgraded, includes HDL)*	3
EECE-410	*Introduction to Computer Networks (New Course)*	3
EECE-412	*Advanced Digital Systems Design Laboratory (New Course, replaces 412)*	2
EECE-416	*Microprocessors & Microcomputers (New Course: ELEG 416, revised)*	3
EECE-417	*Computer Systems Architecture (ELEG 417, revised & upgraded)*	3
EECE-453	Communication Theory	3
	Total Hours Required	53

Systems & Computer Science Core Courses

SYCS-135	Introduction to Computer Programming	4
SYCS-136	Elementary Data Structures	3
	Total Hours Required	7

Liberal Arts Core Courses (Math, Physics, etc.)

CHEM-003	General Chemistry Lecture	4
CHEM-005	Chemistry Lab.	1
EGPP-101	Intro to Engineering (Computer Literacy Workshop as a component of EGPP-101)	2
EGPP-102	Intro to Engineering II	1
ENGL-002	Freshman Comp. I	3
ENGL-003	Freshman Comp. II	3
MATH-156	Calculus I	4
MATH-157	Calculus II	4
MATH-159	Differential Equations	4
MATH-181	Discrete Structures	3
PHYS-013	Physics for Science & Engineering I	3
PHYS-014	Physics for Science & Engineering II	3
PHYS-023	Physics for Science & Engineering I--Lab.	1
PHYS-024	Physics for Science & Engineering II -- Lab.	1

	ROTC or Physical Education	2
	Total Hours Required	39

Computer Engineering Elective Courses (9 hours required)

(Minimum 6 hours from EECE department courses)

EECE-446	*ASIC Design (New Course, including FPGA design)*	3
EECE-456	*Embedded Systems Design Laboratory (New Course)*	3
EECE-465	*Neural Networks (New Course)*	3
EECE-466	*Robotics (New Course)*	3
EECE-475	*Fuzzy Logic (New Course)*	3
EECE-476	*Digital Signal Processors (New Course)*	3
EECE-485	*Genetic Algorithms (New Course)*	3
EECE-486	*Logic Design for Testability (New Course)*	3
EECE-498	Independent Project	3
EECE-499	Special Topics in Computer Enginneering (ELEG-499 Revised)	3
EECE-900	Industrial Experience (Coop)	3
SYCS-321	Computer Graphics	3
SYCS-354	Advanced Data Structures	3
SYCS-410	Modeling & Simulation	3
SYCS-470	Analysis of Algorithms	3
SYCS-495	Parallel Processing	3
	Total Hours Required	9

Electrical Engineering Elective Courses (6 hours required)

EECE-418	Power Electronics I	3
EECE-420	Introduction to VLSI Design & Simulation	3
EECE-421	Power Systems I	3
EECE-431	Linear Controls	3
EECE-443	Introduction to Microwave	3
EECE-454	Communication Electronics	3
EECE-463	Digital Electronics	3
EECE-465	Physical Electronics	3
EECE-471	Design of Integrated Circuits	3
EECE-487	Telecommunications	3
EECE-496	IC Tech Lab	3
	Total Hours Required	6

Social Science/Humanities Elective Courses (9 hours required)

Social Science Electives

(Choose one course from the following list)

AFRO-005	Introduction to Afro-American Studies I	3
ANTH-110	Introduction to Anthropology I	3
CLAS-104	Greek Civilization	3

CLAS-105	Roman Civilization	3
ECON-001	Principles of Economics I	3
GERM-145	German Culture	3
HIST-001	Introduction to the Study of Civilization I	3
HIST-005	Introduction to Black Diaspora I	3
HIST-009	U.S. History to 1877	3
HIST-010	U.S. History since 1877	3
HIST-040	Introduction to the History of Latin America and the Carribean to the Mid-19th Century	3
HIST-041	Introduction to the History of Latin America and the Carribean since the Mid-19th Century	3
HIST-050	Introduction to European History	3
HIST-101	World Geography	3
HIST-102	Economic Geography	3
POLS-001	Introduction to Political Science	3
RUSS-145	Russian Culture I	3
SOCI-001	Introduction to Sociology	3
SOCI-160	The Sociology of African Americans	3

Humanities Electives

(Choose two courses, one lower and one upper)

Literature Group (Lower Level Courses)

CLAS-101	Greek Literature in English	3
CLAS-102	Roman Literature in English	3
CLAS-108	Greek Drama in English	3
CLAS-109	Classical Mythology	3
CLAS-113	Women in the Ancient World	3
FREN-100	Francophone Literature in English	3
RUSS-100	Great Short Stories	3
SPAN-100	Hispanic Literature in English	3

Upper Level Courses

CLAS-014	Introduction to Humanities	3
CLAS-114	Lyric Poetry in Classical Antiquity	3
ENGL-009	Tech Writing - Preprofessional	3
ENGL-168	Modern Caribbean Literature	3
GERM-101	Literature of Love	3
HUMA-107	Women In Literature	3

Non-literature Group (Lower Level Courses)

GERM-100	Individual and Society	3
GERM-109	Northern Myths and Legends	3
GERM-111	Classic Films in English	3
RUSS-109	Slavic Mythology	3

Non-literature Group (Upper Level Courses) 3

ARTH-161	Art Appreciation	3
CLAS-103	Classical Art and Archaeology	3
CLAS-111	Satire and Comedy in the Ancient World	3

MUSC-100	Introduction to Music	3
MUTP-100	Blacks in the Arts	3
THSV-010	Introduction to Theatre	3
	Total Hours Required	9

African American Studies Elective Courses (3 hours required)

AFRO-005	Introduction to Afro-American Studies I	3
AFRO-006	Introduction to Afro-American Studies II	3
ENGL-054	Afro-American Literature to 1940	3
ENGL-055	Afro-American Literature (1940 to Present)	3
HIST-005	Introduction to Black Diaspora I	3
HIST-006	Introduction to Black Diaspora II	3
MUTP-100	Blacks in the Arts	3
POLS-006	Pan Africanism	3
	Total Hours Required	3
	Total Hours Required for B.S. in Computer Engineering	**126**

APPENDIX B – THE PROPOSED COMPUTER ENGINEERING CURRICULUM (SEMESTER BY SEMESTER)

Freshman Year

Fall (1st):

CHEM-003	General Chemistry Lecture	4
CHEM-005	Chemistry Lab.	1
EGPP-101	Intro to Engineering (Computer Literacy Workshop as a component of EGPP-101)	2
ENGL-002	Freshman Comp. I	3
SYCS-135	Introduction to Computer Programming	4
	Social Science/Humanities Electives (See list of SS/HUM electives)	3
	Semester Credit Hours: 17	

Spring (2nd):

ENGL-003	Freshman Comp. II	3
MATH-156	Calculus I	4
PHYS-013	Physics for Science & Engineering I	3
PHYS-023	Physics for Science & Engineering I--Lab.	1
SYCS-136	Elementary Data Structure	3
EGPP-102	Intro to Engineering II	1
	ROTC or Physical Education	1
	Semester Credit Hours: 16	

Sophomore Year

Fall (3rd):

EECE-200	*Introduction to Computer Engineering (New Course: "From bits to C")*	3
EECE-206	*Introduction to Computer Engineering Laboratory (New Course)*	1
MATH-157	Calculus II	4
PHYS-014	Physics for Science & Engineering II	3
PHYS-024	Physics for Science & Engineering II -- Lab.	1
	Social Science/Humanities Electives (See list of SS/HUM electives)	3
	Semester Credit Hours: 15	

Spring (4th):

EECE-311	*Digital Systems Design (ELEG 311 upgraded)*	3
EECE-317	*Digital Systems Design Laboratory (New Course)*	2
EECE-202	Network Analysis	3
EECE-204	Introduction to Electrical Engineering Laboratory	1
MATH-159	Differential Equations	4
	Social Science/Humanities Electives (See list of SS/HUM electives)	3
	Semester Credit Hours: 16	

Junior Year

Fall (5th):

EECE-303	Electromagnetic Theory I	3
EECE-307	Electronics I Laboratory	2
EECE-315	Electronics I	3
EECE-321	*Probability for Engineers (New course)*	3
EECE-350	Operating Systems for Engineers	3

	African American Studies Elective (See list of AA Studies Electives)	3
	Semester Credit Hours: 17	
Spring (6th):		
EECE-322	*Signals & Systems (New course, revised Signals & Systems I)*	3
EECE-406	*Advanced Digital Systems Design (ELEG 412, revised and upgraded, includes HDL)*	3
EECE-412	*Advanced Digital Systems Design Laboratory (New Course, replaces ELEG 412)*	2
MATH-181	*Discrete Structures*	3
	Computer Engineering Electives (See list of CPE Electives)	3
	ROTC or Physical Education	1
	Semester Credit Hours: 15	

Senior Year

Fall (7th):		
EECE-401	Senior Design Project I (Fundamentals of Design & Applications)	3
EECE-416	*Microprocessors & Microcomputers (ELEG 416, revised & upgraded)*	3
EECE-453	Communication Theory	3
	Electrical Engineering Electives (See list of EE electives)	3
	Computer Engineering Electives (See list of CPE Electives)	3
	Semester Credit Hours: 15	
Spring (8th):		
EECE-404	*Senior Design Project II (Senior Thesis Design)*	3
EECE-410	*Introduction to Computer Networks (New Course)*	3
EECE-417	*Computer Systems Architecture (ELEG 417, revised & upgraded)*	3
	Electrical Engineering Electives (See list of EE electives)	3
	Computer Engineering Electives (See list of CPE Electives)	3
	Semester Credit Hours: 15	

TOTAL Credit Hours: 126

APPENDIX C - COURSE PREREQUISITES

Included in this section is a list of the computer engineering courses and their prerequisites. Students wishing to register for Computer Engineering courses must first receive clearance from the ECE department office to verify that all prerequisites have been completed. Faculty advisors will be available to assist students each semester during the university pre-registration period.

Course #	Prerequisites
	Computer Engineering Core Courses
EECE-200	ENGL-002, MATH-156 and PHYS-013
EECE-202	MATH-157, PHYS-014 Co-requisite MATH-159
EECE-204	Co-requisite EECE 202
EECE-206	Co-requisite EECE-200
EECE-303	MATH-158, PHYS-014
EECE-307	Co-requisite EECE-315
EECE-311	EECE-200
EECE-315	EECE-202
EECE-317	Co-requisite EECE-311
EECE-321	EECE-202
EECE-322	EECE-321
EECE-350	SYCS-136
EECE-401	EECE-322
EECE-404	EECE-401
EECE-406	EECE-311
EECE-412	Co-requisite EECE-406
EECE-410	EECE-322
EECE-416	EECE-406
EECE-417	EECE-406
EECE-453	EECE-322
	Systems & Computer Science Core Courses
SYCS-135	None
SYCS-136	C or better in SYCS-135
	Liberal Arts Core Courses (Math, Physics, etc.)
CHEM-003	None
CHEM-005	None
EGPP-101	None
ENGL-002	None
ENGL-003	None
MATH-156	MATH-007 or outstanding score on Math Placement Exam
MATH-157	MATH-156
MATH-158	MATH-157
MATH-181	MATH-180**
PHYS-013	None

PHYS-014 None
PHYS-023 Corequisite PHYS-013
PHYS-024 Corequisite PHYS-014

Computer Engineering Elective Courses (9 hours required)
(Minimum 6 hours from EECE department courses)

EECE-446 *EECE-315, EECE-406*
EECE-456 *EECE-406*
EECE-465 *EECE-322*
EECE-466 *EECE-406*
EECE-475 *EECE-311*
EECE-476 *EECE-322*
EECE-485 *EECE-406*
EECE-486 *EECE-311*
EECE-498 Departmental approval
EECE-499 Departmental approval
EECE-900 Enrollment in the Co-op program
SYCS-321 None
SYCS-354 SYCS-136
SYCS-410 MATH-189, SYCS-375
SYCS-470 MATH-189
SYCS-495 None

Electrical Engineering Elective Courses (6 hours required)

EECE-418 EECE-315,EECE-322
EECE-420 EECE-315
EECE-421 EECE-318
EECE-431 EECE-322
EECE-443 EECE-304
EECE-454 EECE-308, EECE-453
EECE-463 EECE-307, EECE 315
EECE-465 EECE-315
EECE-471 EECE-316
EECE-487 EECE-453
EECE-496 None Listed
**Prerequisite needs to be removed for CPE (MATH-180)

APPENDIX D - COURSE SEQUENCE DIAGRAM