

SUMMARY OF PROPOSED CURRICULUM REVISIONS

Ouachita Baptist University

November 2011

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The notation **short form** indicates informational level curriculum revisions submitted on the University Curriculum and Academic Standards Committee's short form, which include course title changes, course time offering changes, and non-substantive changes to course content and/or descriptions. These revisions will NOT be brought to the faculty for discussion or a vote, unless questions are raised before the fall faculty meeting.

Pruet School of Christian Studies

Department	Change	Rationale
Biblical Studies short form	<p>Change the time offerings of the following:</p> <p>BIST 3103 Pentateuch from Spring of even-numbered year to Fall</p> <p>BIST 3203 Life of Christ from Spring of even-numbered years to Spring</p> <p>BIST 3223 Life and Letters of Paul from Fall of odd-numbered years to Fall</p> <p>BIST 4203 General Epistles from Fall of even-numbered years to Fall of odd-numbered years</p>	<p>Due to the large number of students taking BIST classes, we have consistently offered three BIST courses each semester over the past 10 years. These time revisions simply formalize what we have been doing and reflect what is needed by our students to avoid scheduling issues and to maintain a four-year graduation plan.</p>
Biblical Studies short form	<p>Change BIST 4103 Old Testament Writings to Old Testament Psalms, Wisdom, and Narratives. Also, modify the course description and change the time offering from Fall of odd-numbered years to Spring of even-numbered years.</p> <p>BIST 4103 Old Testament Psalms, Wisdom, and Narratives – An exegetical and theological study of Job, Psalms, Proverbs, Ecclesiastes, Song of Songs, Ruth, Esther, Ezra, Nehemiah, and Chronicles. Prerequisite: BIST 2023. Spring of even-numbered years.</p>	<p>These changes reflect and communicate the course content more accurately. The new time offering will help our students avoid scheduling issues.</p>

Biblical Studies	<p>Add a new course BIST 4223 Acts.</p> <p>BIST 4223 Acts - An exegetical and theological study of the book of Acts. Prerequisite: BIST 2023. Spring of even-numbered years.</p>	<p>As a result of program review, the department identified a missing element in our New Testament course offerings. We have a course for four of the five major areas of New Testament studies (Life of Christ, Life & Letters of Paul, General Epistles, and Revelation), but we do not have a course on the account of the expansion of the early church throughout the Roman Empire (i.e., the book of Acts).</p>
Christian Ministries	<p>Add a new course CHMN 4xx3 Ministry Recreation.</p> <p>CHMN 4xx3 Ministry Recreation – A study of church recreation, Christian camping, and outdoor ministry. The course will examine theological foundations and practical applications for ministry recreation. The course is designed for students preparing to lead ministries that will utilize recreation. Spring of odd-numbered years.</p>	<p>This will be a key course for the proposed Recreation and Sports Ministry emphasis in the Kinesiology and Leisure Studies major, which will focus on ministry through the use of sports or outdoor activity.</p>
Christian Studies	<p>Add a service/internship requirement to the Christian Studies major.</p> <p>Internship/Service Component</p> <p>Fulfillment of this component is achieved by one of the following:</p> <ul style="list-style-type: none"> • Passing one of the following Internship classes: CHMN 3433 CHMN Internship, CHMN 4406 Supervised Hospital Ministry, MSSN 3433 MSSN Internship, or CMPA 3443 Church Media/Production Arts Internship. Completion of one of these CHMN or MSSN classes will also count toward the fulfillment of the Christian Studies emphasis in that area. • Completing one semester of TranServe (minimum 20 hours) through the Elrod Center. 	<p>This will help to make our major more practical with the internship requirement and more service oriented with the service requirement.</p>

Huckabee School of Education

Department	Change	Rationale
<p>Education</p> <p>short form</p>	<p>Remove the prerequisite “admission to teacher education” from ECED 2033 Literature for Early Childhood Classrooms and MSED 2033 Literature for Middle School Classrooms. Also, change the time offering of these courses from Fall and Spring to Spring and Possibly Summer.</p>	<p>Teacher education candidates who have not yet completed pre-requisites for admission to teacher education and others who are interested in Children’s Literature can benefit from the course. While it does have a limited field experience component, the consensus of the faculty is that with minor adjustments made by the faculty member concerning lesson planning, the participants can engage in the course in a meaningful manner without having been admitted to teacher education. Taking the course without the additional requirement of admission to teacher education may benefit students who are trying to pass the Praxis Tests for Admission as well as provide an elective option to students across campus.</p> <p>Offering the course Spring and possibly Summer will help balance loads for faculty and students/teacher education candidate. It will also ensure full class sizes. The summer possibility would most likely only be the summer that Mrs. Carrie Sharp is the faculty sponsor for the Education Study Abroad trip in 2013.</p>
<p>Kinesiology and Leisure Studies</p> <p>short form</p>	<p>Change the time offering of LST 3013 Program Design and Management from Fall to Spring.</p>	<p>Offering this course in the spring will make it more accessible in relation to KIN 4013 Administration of Health, Physical Education and Recreation Programs, which is offered in the fall. The time change will also balance the load of the instructor who teaches both classes.</p> <p>In addition, the new time will improve course sequencing. Ideally, LST 3013 should be offered during the spring semester of a student’s junior year, KIN 4013 the fall semester of the senior year, and KIN 4023 Field Experience in the final semester.</p> <p>Finally, the spring is a better semester for students to develop a class program and to create their own group program.</p>

<p>Kinesiology and Leisure Studies</p> <p>short form</p>	<p>Change PEAC 2861 Hiking to Hiking and Camping.</p>	<p>Students who have taken this course within the last three years have asked that camping be added to the course content. In terms of physical activity requirements, camping (i.e., car camping with tents, ice chests, regular food, etc.) is a good intermediate offering, falling somewhere between the aerobic walking and backpacking courses.</p>
<p>Kinesiology and Leisure Studies</p>	<p>Add a new course PEAC 2931 Canoeing.</p> <p>PEAC 2931 Canoeing. Spring</p>	<p>In the spring of 2011, the department piloted this course with 11 participants. Building on the success of PEAC 2891 Kayaking, we believe canoeing will appeal to a broader audience.</p>
<p>Kinesiology and Leisure Studies</p>	<p>Add a new course PEAC 2941 Cycling.</p> <p>PEAC 2941 Cycling. Fall</p>	<p>In the spring and fall of 2011, the department piloted this course with 14 participants in the spring and 16 in the fall. Dr. Scott Duvall, an experienced cyclist and the course instructor, has indicated a desire to continue teaching the course.</p>
<p>Kinesiology and Leisure Studies</p>	<p>Offer an emphasis in Recreation and Sports Ministry for the Kinesiology and Leisure Studies major.</p> <p>Requirements for a major in Kinesiology and Leisure Studies (Recreation and Sports Ministry Emphasis)</p> <p>Note: A minor is not required with this emphasis.</p> <p>Required courses from the Department of Kinesiology and Leisure Studies include KIN 1003, 1012, 1113, 3073,4013,4023, LST 3013, 3033, 3083, 4842; one course from KIN 2022, 2032, 3032, 3042; and four additional hours from the following: KIN 1101, 1151, 2101, 2121, 2131, 2191, 2901, PEAC 1011, 1041, 1051, 1061, 2001, 2031, 2861, 2891, 2031. Required Christian Studies courses include THEO 1003; a choice of THEO 3323 or THEO 4403; BIST 2023; CHMN 1023, 2223, 3423; a choice of</p>	<p>Each summer, at least 100 Ouachita students (a very conservative estimate) work at camps involving some form of recreation and sports ministry (i.e. War Eagle, Kanakuk, Pine Cove, T Bar M, Super Summer, Pine Cove, Sky Ranch, Camp Ozark, etc.). Many of these students have indicated to department faculty a desire to pursue a vocation in recreation ministry.</p> <p>While exploring the possibility of adding this emphasis, the department contacted a variety of recreation ministers. They indicated the emphasis would be valuable preparation for their field and that graduates would be employable without an advanced degree. They also said they were not aware of other universities who offer a recreation ministry emphasis at the undergraduate level.</p> <p>Ouachita conducts an annual Ministry-Related Vocation Survey each fall semester to gauge student interest in ministry careers. Survey results indicate that many of our students are interested in recreation ministry.</p>

	<p>CHMN 3123 or 4213; and CHMN 4xx3 (proposed recreation and ministry course). Required Speech Communication course SPCM 2043 or 3033.</p>	<p>In collaboration with the Pruet School of Christian Studies, we believe this emphasis will be an attractive option for prospective students. It meets a need that a number of our students desire. It also expands their opportunities for employment and admission to seminary and graduate schools.</p>
<p>Kinesiology and Leisure Studies</p>	<p>Offer an emphasis in Pre-Professional Studies for the Kinesiology and Leisure Studies major.</p> <p>Requirements for a major in Kinesiology and Leisure Studies (Pre-Professional Studies Emphasis)</p> <p>Note: A minor is not required with this emphasis.</p> <p>KIN 1003, 1012, 1113, 2073, 2093, 2901, 3013, 3023, 3073, 4013, 4023, 4043, BIOL 1014, 2014, 2024, NSCI 4002, DIET 3043, and one course from BIOL 3014*, 3064, 4054*, 4064*.</p> <p>*These courses have science pre-requisites.</p>	<p>With the creation of the Athletic Training Education Program (ATEP), the Department of Kinesiology and Leisure Studies has seen an increase in students who are seeking certification in Athletic Training or desiring entry into graduate/professional schools to study physical/occupational therapy, exercise science, and other health related fields. Typically, these students majored in Biological Science/ATEP and took courses in and/or minored in Kinesiology and Leisure Studies. This combination fit well with graduate/professional school entry requirements.</p> <p>Because OBU's ATEP program will end in 2012, we want to give students the opportunity to satisfy entry requirements for admission to a master's program in athletic training along with meeting graduate/professional school requirements in the areas of exercise science, physical/occupational therapy, and related fields. Without an emphasis in Pre-Professional Studies, students would be required to adhere to a rigid major/minor combination, preventing them from taking some courses needed for entry into graduate/professional schools.</p> <p>A major in Kinesiology and Leisure Studies with an emphasis in Pre-Professional Studies would give students the flexibility to tailor a degree plan for admission to a graduate/professional school of their choosing. It would also allow the university to continue to recruit prospective students interested in athletic training.</p>

<p>Kinesiology and Leisure Studies</p> <p>short form</p>	<p>Change ATEP 2063 Techniques of Athletic Training to KIN 3013 Care and Prevention of Athletic Injury.</p> <p>KIN 3013 Care and Prevention of Athletic Injury – This is an advanced course designed for those students seeking admission into an entry-level Master’s Degree program in Athletic Training. Emphasis is placed upon the various responsibilities of a certified athletic trainer. Using outcomes based curriculum, proven methods of sports injury evaluation, therapy, and return to play decisions will be addressed. Laboratory times will focus on introducing the clinical skills necessary for admission into Entry-Level Master’s degree programs for Athletic Training, sports medicine and other sports health care professions. Prerequisites include: KIN 1003, 1113, 2093. Fall.</p>	<p>According to information gathered from athletic training graduate programs, offering this course in the Department of Kinesiology and Leisure Studies will enable students to seek admission into entry-level graduate programs. Because OBU’s Athletic Training Program will end in 2012, this course will be an attractive option for students who want to pursue a career in athletic training or a related field.</p> <p>This course will be an advanced version of courses offered in the major of Athletic Training. Modifications to the material covered will include content from multiple phased out courses.</p>
<p>Kinesiology and Leisure Studies</p> <p>short form</p>	<p>Amend the general catalog so that all references to this department’s major reads “Kinesiology and Leisure Studies.”</p>	<p>This change will make the language consistent.</p>

School of Fine Arts

Department	Change	Rationale
Music History and Literature short form	Change MUHL 4243 Twentieth Century Music to 20 th -21 st Century Art Music.	The proposed title reflects the course content more accurately than the current title.
Music Theory and Composition	Modify the Bachelor of Music in Theory/Composition degree as follows: <ul style="list-style-type: none"> • Change the degree name to Bachelor of Music in Composition. • Add two semesters of MUAP 4xx1 Principal Applied. • Remove MUTH 4242 Pedagogy of Theory from the degree requirements. 	<p>This degree is primarily a music composition degree. Although NASM approved this curriculum in the past, the association now requires that such degrees fully meet all the NASM standards for both theory and composition. Our degree does not meet all of the NASM standards for the theory component of the degree. In order to meet the NASM standards, additional theory courses would need to be added to the degree. Since most, if not all, of the students declaring this degree are primarily interested in composition, and the degree meets all of the NASM standards for the composition content of the degree, it seems logical to change the name of the degree to Bachelor of Music in Composition.</p> <p>Adding two semesters of the Principal Applied course is necessary to meet an NASM standard that requires eight semesters of applied music for this degree.</p> <p>Because of the degree's change from theory and composition to composition, the pedagogy of theory course is no longer necessary for the degree. Further, its removal will compensate for the additional two hours of Principal Applied courses. It will remain in the catalog as an upper level theory course offered "on demand."</p>
Music Theory and Composition short form	Change the time offering of MUTH 3133 Counterpoint from Spring to Fall of even-numbered years.	This will help to reduce the frequency of overloaded faculty schedules, which is a problem cited in our NASM Visitors Report.
Music Theory and Composition short form	Change the time offering of MUTH 3222 Orchestration from Fall to Fall of odd-numbered years.	This will help to reduce the frequency of overloaded faculty schedules, which is a problem cited in our NASM Visitors Report.

<p>Music Theory and Composition</p> <p>short form</p>	<p>Change the time offering of MUTH 4242 Pedagogy of Theory from Spring to On Demand.</p>	<p>Because of the degree's change from theory and composition to composition, the course is no longer necessary for the degree. Further, its removal will compensate for the additional two hours of Principal Applied courses. It will remain in the catalog as an upper-level theory course offered "on demand."</p>
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School of Humanities

Department	Change	Rationale
<p>Mass Communications short form</p>	<p>Change the course description for COMM Practicum 1003.5 as follows:</p> <p>Students working on the staff of the Signal, Online Signal, Ouachitonian, photo lab, video production, or Office of Communications may receive credit for meritorious work. Such credit will be given in one-half hour credits up to a total of two hours. The practicum includes such work as news and feature story writing, photography, layout, editing, website content and management, and video production. Fall, Spring</p>	<p>The revised course description indicates areas in which students receive practicum credit. We want the catalog to reflect the options available to students.</p>
<p>Mass Communications short form</p>	<p>Change the time offering of COMM 4703-4793 Issues in Mass Communications from Fall and Spring to Fall.</p>	<p>The course has been a Fall only course for years. In the past few years, we have also offered it during May Term. We requested a catalog change last year to Fall, Spring, but we will not be able to offer it in the Spring due to current teaching loads. We do plan to continue offering it in May Term as needed, and hope to develop it into an online course for May Term so that it is an option for more students. Students are allowed to take the course twice as long as the course topic is different. Currently, Jeff Root teaches the course in the fall as a readings course. Deborah Root teaches the course in May Term on the topic of media ethics.</p>
<p>Speech Communication</p>	<p>Delete the course SPCM 4931 Senior Assessment Seminar.</p>	<p>Before the university revamped its assessment process, the previous Speech Department chair created this course to assess student learning outcomes for the major. It is no longer needed, because under the new assessment structure, other courses in the Speech Assessment Plan are designated to assess student learning outcomes.</p>

Patterson School of Natural Sciences

Department	Change	Rationale
Biology	<p>Change the requirements for a B.S. degree in Biology.</p> <p>Requirements for a major in Biology:</p> <p>B.S. degree: BIOL 1014, 1024, 4001, two courses from 3034, 4054, 4064, and additional BIOL hours to total thirty hours in the department. Additionally, eight hours of chemistry are required. A minor must be completed in Chemistry, Computer Science, Mathematics, Physics, or Psychology.</p>	<p>Changes being made by the Chemistry Department result in our being able to modify the hours required for a minor for the B.S. degree in Biology. The Chemistry Department change reduces the credit hours for Organic Chemistry from five per semester to four per semester.</p> <p>This also moves in a direction to equal the 18 hour minor required by most all other programs on campus.</p>
Chemistry	<p>Change CHEM 3005 Organic Chemistry I and CHEM 3015 Organic Chemistry II from five hours to four hours. This proposed change would reduce the laboratory experience for the students from six hours per week to three hours per week. Lecture would continue to be three hours per week.</p> <p>3xx4 Organic Chemistry I – A systematic study of the typical compounds of carbon emphasizing the relationship between structure and reactivity. Lecture three hours, laboratory three hours per week. [CAC-W] Prerequisite: CHEM 1014. Fall.</p> <p>3xx4 Organic Chemistry II – A continuation of CHEM 3xx4 Organic Chemistry I emphasizing reaction mechanisms and synthesis. Lecture three hours, laboratory three hours per week. [CAC-O] Prerequisite: CHEM 3004. Spring.</p>	<p>Laboratory space and safety concerns for our students demands that we hold laboratory enrollment to 32 students or less in each of the science laboratories. Currently, there are 40 students enrolled in CHEM 3005 Organic Chemistry I. This high enrollment forces the department to offer two sections of the lab per week. The department anticipates that this high enrollment in these courses will continue in the near future. Additionally, the majority of organic chemistry courses at other institutions are four hour courses rather than five hour courses.</p>

Chemistry	<p>Delete CHEM 3111 Chemistry Literature Seminar and CHEM 4111 Chemistry Research Seminar.</p> <p>Add CHEM 4xx1 Directed Chemistry Research and 4xx1 Senior Capstone Experience.</p> <p>4xx1 Directed Chemistry Research – A course in lab or field research in chemistry. Course may be taken only once for credit. Students wishing to receive credit for research experiences at other institutions must receive pre-approval from the Department Chair. Prerequisite: CHEM 1004, 1014; and consent of instructor. Fall, Spring.</p> <p>4xx1 Senior Capstone Experience – Participants will prepare written reviews, make oral presentations, and defend results on their chemical research projects. Additionally, students will participate in an exit exam. One hour per week. Prerequisite: Prior research experience. [CAC-W and CAC-O] Spring.</p>	<p>Currently, experimental research is required of all of the majors and this research should be documented on the student's transcript.</p> <p>We are proposing deleting the Chemistry Literature and Research Seminar courses and combining them into one senior level capstone experience for our students. The Chemistry Literature Seminar course is not currently a required course for our minimal majors and has been taken only by our professional chemistry majors. In this fashion, all of our majors will be exposed to searching chemistry literature and presenting the results of their research as well.</p>
Computer Science	<p>Discontinue the B.S. degree in Software Engineering and revise the Computer Science curriculum accordingly:</p> <p>Changes to the Majors</p> <ul style="list-style-type: none"> • The B.S. in Computer Science will remove CSCI 1033, change SENG 2003 to CSCI 3463, and add an ethics requirement. An ethics course will now be required as our faculty will no longer be teaching the two courses that currently contain ethics material. The students will be allowed to choose between BUAD 4083 (Business Ethics) and PHIL 4243 (Workplace Ethics). 	<p>Lack of enrollment and loss of a faculty member necessitate these changes. In brief, the proposal discontinues the Software Engineering degree, removes several courses from the catalog that have never been taught, and alters the time of offering of other courses in order to accommodate the new staffing level. We do not anticipate being able to replace the departing faculty member. Therefore, the course offerings have been streamlined in order to retain the B.S. and B.A. degrees in Computer Science.</p>

The B.A. in Computer Science will remove CSCI 1033, change SENG 2003 to CSCI 3463, and add an ethics requirement. An ethics course will now be required as our faculty will no longer be teaching the two courses that currently contain ethics material. The students will be allowed to choose between BUAD 4083 (Business Ethics) and PHIL 4243 (Workplace Ethics).

Changes to the Minor

The two minor options in Computer Science will be collapsed into one more flexible minor. The new minor will require CSCI 1044 and 1064 and 12 additional hours in Computer Science with a minimum of 6 at the junior/senior level. The reason for this change is to allow for students to decide in their junior year to minor in Computer Science. With our current minor structure, they were unable to get all of their required classes in within the two years, due to every-other-year scheduling of most junior/senior courses.

Deletions

- CSCI 1033 Introduction to Computer Science. We do not have the staffing level to continue offering this course as the first course in the entry-level sequence. Also, our data shows that in the years it has been offered we have not had the external draw that we had hoped. Therefore, we will return to having Programming I be the first course for freshmen, but will retain some of the Intro to CS material for use in Programming I.
- CSCI 3063 Artificial Intelligence. This course has never been taught.
- CSCI 4053 Operating Systems. This course has not been taught in at least 8 years.

	<ul style="list-style-type: none"> • CSCI 4113 Game Design. This course has never been taught. • CSCI 4243 Client/Server Development. This course has never been taught. • SENG 3003 Software Construction. Removed due to discontinuation of the SENG degree. • SENG 3013 Software Design and Architecture. Removed due to discontinuation of the SENG degree. • SENG 3033 Software Quality Assurance and Testing. Removed due to discontinuation of the SENG degree. • SENG 3043 Software Requirements Analysis. Removed due to discontinuation of the SENG degree. • SENG 4003 Software Project Management. Removed due to discontinuation of the SENG degree. • SENG 4013 Software Engineering Capstone. Removed due to discontinuation of the SENG degree. <p>Addition</p> <p>CSCI 3801-3893 Special Studies in Computer Science. We need flexibility to offer special topic classes at the junior level. We currently only have the option to offer them at the senior level, and this restricts our enrollment unnecessarily.</p> <p>Course Number Changes</p> <ul style="list-style-type: none"> • The number for Programming II will be moved from 2044 back to 1064. This is due to the removal of CSCI 1033 from the catalog. Programming II will now be taken in the second semester of the freshman year. • SENG 2003 Introduction to Software Engineering will move to CSCI 3463 Software Engineering. This is to align the course with what HSU is 	
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	<p>offering. It is acceptable to have this course at a junior level. The prerequisite will be moved from Programming II to CSCI 2103 Data Structures. We anticipate this course being taken in either the sixth or eighth semester.</p> <ul style="list-style-type: none">• SENG 2013 Human Computer Interaction will be moving to a CSCI prefix. It will be a sophomore level elective with a CSCI 1044 prerequisite. <p>Time Offering Changes Due to New Staffing Level</p> <ul style="list-style-type: none">• CSCI 1044 Programming I - Fall• CSCI (1064) 2044 Programming II - Spring• CSCI 2103 Data Structures - Fall• CSCI 2113 Internet Development - Spring of odd-numbered years• CSCI 2123 Current Languages - Fall of even-numbered years• CSCI 3053 Computer Networks - Spring of odd-numbered years• CSCI 4083 Current Topics - Fall of odd-numbered years <p>Time Offering Changes Aligned with HSU's Offerings</p> <ul style="list-style-type: none">• CSCI 3463 (SENG 2003) Software Engineering - Fall• CSCI 4023 Programming Languages - Spring• CSCI 4033 Database Management Systems - Spring• CSCI 4043 Algorithm Design and Analysis - Spring	
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Catalog Revision

Computer Science (CSCI)

Computer Science is the study of computers and computational systems: their theory, design, development, and application. Computer programming is only one element of computer science; the real study of the discipline is concerned with problem solving. Problems range from abstract (determining what problems can be solved with computers and the complexity of the algorithms that solve them) to practical (design of computer systems easy for human use). The Computer Science program engages students in the pursuit of logical thinking through a wide variety of topics that will provide a solid foundation for their future endeavors in either graduate school or the professional world. The program encourages scholarship, ethical behavior, and a commitment to continual learning.

Requirements for a major in Computer Science:

B.S. degree: CSCI 1044, 1064, 2103, 3093, 3463, 4023, 4043, 4103, nine additional hours in computer science; MATH 1073, 2014, 2073, 3093; CHEM 1004 or PHYS 2004; PHIL 4013 or BUAD 4083. A minor must be completed in biology, chemistry, physics or mathematics.

B.A. degree: CSCI 1044, 1064, 2103, 3053, 3463, 4033, 4103, nine additional hours in Computer Science; MATH 1073, 2073; PHIL 4013 or BUAD 4083.

Requirements for a minor in Computer Science:

CSCI 1044, 1064, plus 12 additional hours in computer science with a minimum of 6 at the junior/senior level. A split minor may not be taken in Computer Science.

CSCI Course Descriptions:

1044. Programming I.

Introduction to the fundamental concepts of programming using an object-oriented language. Topics include: selection, repetition, methods, and problem solving; introduction to arrays, strings, and simple class design. Includes a laboratory component. Prerequisite: 23 on Math subscore of the ACT, or a C or better in MATH 1003. Fall.

1064. Programming II.

Continues the introduction from CSCI 1044. Concentrates on object-oriented development (encapsulation, aggregation, inheritance, polymorphism, interfaces) and elementary data structures (resizable arrays, linked lists, stacks, queues). Also includes introductions to recursion, algorithm analysis, searching, and sorting. Includes a laboratory component. Prerequisite: CSCI 1044. Spring.

2103. Data Structures.

Study of ADTs and their common implementations: searchable collections (BSTs and self-balancing trees), priority queues (heaps), maps (hash tables), and graphs (adjacency list/matrix). Emphasis is on choosing an implementation based on algorithmic analysis and properties of a particular application. Also includes generics, recursion, and advanced sorting. Prerequisite: CSCI 1064. Corequisite: MATH 2073. Fall.

2113. Internet Development.

This course surveys the many technologies that are used to program Web-based applications. This includes HTML for content markup, CSS for content style, client-side processing (e.g., in JavaScript), and server-side processing (e.g., in PHP). In addition, students will write server-side code with simple database interaction. Prerequisite: CSCI 1044. Spring of odd-numbered years.

2123. Current Languages.

Introduces students to a recent new language not already covered in the curriculum. May only be taken once for credit. Prerequisite: CSCI 1064. Fall of even-numbered years.

2xx3. Human Computer Interaction.

Evaluation of user interfaces, usability engineering, and prototyping. Design of windows, menus, and commands. Response time and feedback. Color, icons, and sound. Internationalization and localization. User interface architectures and APIs. Prerequisite: CSCI 1044. Spring of even-numbered years.

3053. Computer Networks.

Introduces the structure, implementation, and theoretical underpinnings of computer networking and the applications that have been enabled by that technology. Prerequisite: CSCI 1064 or CSCI 1044 and Junior standing. Spring of odd-numbered years.

3093. Computer Organization.

Introduces the concept of a computer beginning with the hardware. Topics covered include: microprocessor architecture, memory, busses, interrupts, interface adapters, controllers, direct memory access, and serial communication. Includes the usage of assembly language to reinforce topics. Prerequisite: CSCI 1064. Spring of even-numbered years.

3463. Software Engineering.

A study of the methods used in the design, development, implementation, testing and maintenance of software systems. Students will utilize the team approach in the development and management of software projects and will make use of modern tools to achieve these tasks. Prerequisite: CSCI 2103. Fall.

3801-3893. Special Studies in Computer Science.

Continuation of courses offered on a regular basis or areas of computer science not covered in the regular curriculum. Prerequisite: Consent of instructor. On Demand.

4023. Programming Languages.

Comparison of the organization and structure of procedural, object-oriented, functional, declarative, and scripting languages. Additional topics will include language translation, abstraction mechanisms, language design and semantics. Prerequisite: CSCI 2103. Spring.

4033. Database Management Systems.

Introduces the concepts, techniques, and management of databases and Database Management Systems (DBMS). Topics include relational databases, normalization, indexing, and transaction management. Prerequisite: CSCI 2103. Spring.

	<p>4043. Algorithm Design and Analysis. Introduces formal techniques to support the design and analysis of algorithms, focusing on both the underlying mathematical theory and practical considerations of efficiency. Prerequisite: CSCI 2103. Spring.</p> <p>4083. Current Topics. Examination of topics, tools, and/or methodologies that have become significant forces in the field and are not covered by other courses in the curriculum. May be taken twice for credit. Prerequisites: Junior status or consent of instructor. Fall of odd-numbered years.</p> <p>4103. Senior Capstone. This course will engage students in research outside of their previous coursework experience. The outcome of this course will be either a project or a paper of sufficient quality to be published or presented at a conference. Prerequisite: Senior standing and/or consent of instructor. [CAC-O and CAC-W] Spring.</p> <p>4801-4893. Special Studies in Computer Science. Continuation of courses offered on a regular basis or areas of computer science not covered in the regular curriculum. Prerequisite: Consent of instructor. On Demand.</p>	
<p>Mathematics</p>	<p>Delete CSCI 1033 Introduction to Computer Science from the degree requirements for the B.A. in Mathematics, the B.S. in Mathematics, and the B.S. in Applied Mathematics.</p> <p>Delete CSCI 1033 Introduction to Computer Science from the degree requirements for the B.A. in Mathematics (Teaching Emphasis), and replace it with CSCI 1044 Programming I.</p>	<p>The computer science program will no longer be offering CSCI 1033.</p>