Madison University – Program Outline
Bachelor Degree Program
Concentration – Computer Information Systems

Office of Admissions: Phone: 228.897.7710 / Fax: 228.897.7737 / Admissions@MadisonU.com

Segment One - General Education Requirements

60 Credit Hours - Each course is 6 credit hours

The general education requirements provide a broad foundation in the basic academic disciplines and offer students the opportunity to explore the breadth of the liberal arts and sciences. The following courses offered by Madison University meet the general education requirements for undergraduate students:

Course Number	Course Title
BIOL – EEC 101	Biology
COMM – EEC 101	Introduction to Communication
ENGL – EEC 101	English Composition I
ENGL – EEC 102	English Composition II
GEO – EEC 101	Introduction to Geography
HIS – EEC 101	Introduction to American History
HIS – EEC 102	Introduction to World History
MATH – EEC 101	Basic Principle of Mathematics
PHIL – EEC 101	Introduction to Philosophy
SOC – EEC 101	Introduction to Sociology

Segment Two - Concentration Requirements

60 Credit Hours - Each course is 6 credit hours

CSCI 30303 Introduction to Programming Theory	
Formulation and solution of programming theory by graphical means, the simplex method, including use of the artificial variable, primal-dual relationships, and sensitivity analysis. Transportation, assignment, flow, and scheduling techniques are also covered.	
Textbook: Introduction to Operations Research, 7th edition	
ISBN#: 0-07253-510-5	

CSCI 30102 Introduction to Computer Programming	
An introductory study of concepts of computer programming, problem solving, algorithm development, and coding using a high-level, structured programming language.	
Textbook: Introduction to Computer Science: Programming, Problem Solving and Data Structures, 3rd edition	
ISBN#: 0-314-04556-2	

CSCI 30103 Visual Basic	
This course is an introduction to programming using Visual Basic.	
Textbook: Using Visual Basic, 2nd edition	
ISBN#: 0-538-678860	

CSCI 30121 Introduction to Theory of Computability	
A course on relational database structure and methods of design and manipulation. The student will study and implement a major database project using a production-version database management system.	
Textbook: Introduction to the Theory of Computability	
ISBN#: 0-534-94728-X	

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CSCI 30201 Introduction to Compiler Design	
While focusing on the essential techniques common to all language paradigms, this book provides readers with the skills required for modern compiler construction. All the major programming types (imperative, object-oriented, functional, logic and distributed) are covered. Practical emphasis is placed on implementation and optimization techniques, which includes tools for automating compiler design.	
Textbook: Modern Compiler Design	
ISBN#: 0-471-97697-0	

CSCI 30221 Introduction to Data Structures	
Introduction to data structures in computing. Topics include sets, relations, functions, digraphs, matrices, recursion, partially ordered sets, Boolean Algebra, artificial languages, and finite state machines.	
Textbook: Data Structures: A Pseudocode Approach with C	
ISBN#: 0-534-95123-6	

CSCI 30231 Programming Languages	
Programming paradigms and associated languages, syntax, semantics, and translation of programming languages.	
Textbook: Concepts of Programming Languages	
ISBN#: 0-201-38596-1	

CSCI 30341 Introduction to Computer Graphics	
The principles and techniques of computer graphic generation and design.	
Textbook: Computer Graphics in C: Principles and Practice	
ISBN#: 0-201-84840-6	

BS 400 Bachelor's Final
The Bachelor's Final Paper or Project.