

Start/End Dates

Meeting Days

Meeting Times

Location

Instructor

Course Topic (if applicable)

COMPUTER SCIENCE**Computer Science**

COMPSCI 162 COMPUTER APPLICATIONS (GM) ... A thorough introduction to using computers covering word processing, spreadsheets, data storage and retrieval, computer graphics and applications, uses of computers, e-mail and the Internet, hardware, history, and problems arising from the use of computers.

COREQ: MATH 141 OR MATH 140 OR WAIVER

#1886	Section 01	[units: 3]	Gen Ed Math/Natural Sciences (GM)	NOTE: This a hybrid course which meets both online and in the classroom.
	09/06-12/22	M	08:00 AM - 09:15 AM	MG0115 Jiehui Ma
	09/06-12/22	W	Arranged	WEB BASED Jiehui Ma
#1887	Section 02	[units: 3]	Gen Ed Math/Natural Sciences (GM)	NOTE: This a hybrid course which meets both online and in the classroom.
	09/06-12/22	T	09:30 AM - 10:45 AM	HY0210 Yuheng Cao
	09/06-12/22	R	Arranged	WEB BASED Yuheng Cao
#1893	Section 03	[units: 3]	Gen Ed Math/Natural Sciences (GM)	NOTE: This is a web based class. Required additional course fee is \$150.
	09/06-12/22	Arranged	Arranged	WEB BASED Athula Gunawardena
#1923	Section 04	[units: 3]	Gen Ed Math/Natural Sciences (GM)	NOTE: This is a hybrid course which meets both on-line and in the classroom.
	09/06-12/22	F	09:30 AM - 10:45 AM	HY0210 Yuheng Cao
	09/06-12/22	T	Arranged	WEB BASED Yuheng Cao
#1895	Section 05	[units: 3]	Gen Ed Math/Natural Sciences (GM)	NOTE: This a hybrid course which meets both online and in the classroom.
	09/06-12/22	R	08:00 AM - 09:15 AM	HY0210 Jiehui Ma
	09/06-12/22	T	Arranged	WEB BASED Jiehui Ma
#1896	Section 06	[units: 3]	Gen Ed Math/Natural Sciences (GM)	NOTE: This is a web based class. Required additional course fee is \$150.00.
	09/06-12/22	Arranged	Arranged	WEB BASED Yuheng Cao
#1897	Section 07	[units: 3]	Gen Ed Math/Natural Sciences (GM)	NOTE: This is a web based class. Required additional course fee is \$150.00.
	09/06-12/22	Arranged	Arranged	WEB BASED Lopamudra Mukherjee
#4760	Section 08	[units: 3]	Gen Ed Math/Natural Sciences (GM)	NOTE: Restricted to students in the Parkview PIE Program.
	09/06-12/22	Arranged	Arranged	OFF CAMPUS Athula Gunawardena PIE PROGRAM
#4761	Section 09	[units: 3]	Gen Ed Math/Natural Sciences (GM)	NOTE: Restricted to students in the Sheboygan North PIE Program.
	09/06-12/22	Arranged	Arranged	OFF CAMPUS Sobitha Samaranyake PIE PROGRAM
#4762	Section 10	[units: 3]	Gen Ed Math/Natural Sciences (GM)	NOTE: Restricted to students in the Sheboygan South PIE Program.
	09/06-12/22	Arranged	Arranged	OFF CAMPUS Sobitha Samaranyake PIE PROGRAM

COMPSCI 170 INTRODUCTION TO PYTHON PROGRAMMING (GM) ... An introduction to computational thinking and computer programming using the Python language, with applications in science, business, education, and other areas. Students will develop structured programs based on simple algorithms that involve input, output, mathematical operations, decisions, and loops. No previous programming experience is needed.

PREREQ: MATH 141 OR WAIVER OF MATH 141

#1925	Section 01	[units: 3]	Gen Ed Math/Natural Sciences (GM)	NOTE: This is a hybrid course which meets both online and in the classroom.
	09/06-12/22	W	08:00 AM - 09:15 AM	MG0115 Jiehui Ma
	09/06-12/22	Arranged	Arranged	WEB BASED Jiehui Ma
#3855	Section 02	[units: 3]	Gen Ed Math/Natural Sciences (GM)	NOTE: This is a web based class. Required additional course fee is \$150.00.
	09/06-12/22	Arranged	Arranged	WEB BASED Robert Kuzoff

COMPSCI 171 INTRODUCTION TO PROGRAMMING (GM) ... An introduction to computer programming and its applications to science, business and education. Opportunity for extensive experience in designing and writing structured programs in the Visual Basic language.

PREREQ: MATH 141 OR WAIVER OF MATH 141

#1888	Section 01	[units: 3]	Gen Ed Math/Natural Sciences (GM)	NOTE: This is a hybrid course which meets both online and in the classroom.
	09/06-12/22	T	08:00 AM - 09:15 AM	HY0210 Jiehui Ma
	09/06-12/22	Arranged	Arranged	WEB BASED Jiehui Ma

COMPSCI 172 INTRODUCTION TO JAVA (GM) ... This course will give students the essentials of object-oriented programming in Java. Students will learn to formulate algorithms, to solve problems and to implement those solutions with a Java program that employs objects and classes. The student will be introduced to object-oriented design, applications and applets, class construction, methods and message passing arrays, string processing, file processing, and some event-handling and Graphical Use Interface programming. This course is designed for students with some prior programming experience.

PREREQ: MATH 152 WITH A GRADE OF C OR BETTER, OR MATH 143 WITH A GRADE OF C OR BETTER, OR CALCULUS PLACEMENT, OR CONSENT OF INSTRUCTOR

#1890	Section 01	[units: 3]	Gen Ed Math/Natural Sciences (GM)	
	09/06-12/22	MW	03:30 PM - 04:45 PM	MG0115 Jiehui Ma
#1901	Section 02	[units: 3]	Gen Ed Math/Natural Sciences (GM)	
	09/06-12/22	TR	03:30 PM - 04:45 PM	MG0115 Jiehui Ma

Start/End Dates Meeting Days Meeting Times Location Instructor Course Topic (if applicable)

COMPSCI 174 INTRODUCTION TO C++ (GM) ... This course teaches basic programming skills using the structured high-level language C++. Topics include basic input and output, declaration and use of variables, use of control statements, implementation of functions using value and reference parameters, arrays, and structures. Students will write moderately complex applications using C++.

PREREQ: MATH 152 WITH A GRADE OF C OR BETTER, OR MATH 143 WITH A GRADE OF C OR BETTER, OR CALCULUS PLACEMENT, OR CONSENT OF INSTRUCTOR

#1898 Section 01 [units: 3] Gen Ed Math/Natural Sciences (GM) NOTE: This is a hybrid course which meets both on-line and in the classroom.
 09/06-12/22 M 02:00 PM - 03:15 PM HY0210 Jiazhen Zhou
 09/06-12/22 W Arranged WEB BASED Jiazhen Zhou

#1902 Section 02 [units: 3] Gen Ed Math/Natural Sciences (GM)
 09/06-12/22 TR 11:00 AM - 12:15 PM MG0115 Yuheng Cao

COMPSCI 180 DATA SCIENCE FOR EVERYONE (GM) ... An introduction to data science and its implementation using the R language, with applications in natural and social science, public health and welfare, and other areas. Students will explore methods of data analysis and visualization and cultivate marketable data-literacy skills. No prior knowledge of statistics or programming is needed.

PREREQ: MATH 141 OR WAIVER OF MATH 141

#3853 Section 01 [units: 3] Gen Ed Math/Natural Sciences (GM) NOTE: This is a hybrid course which meets both online and in the classroom.
 09/06-12/22 W 02:00 PM - 03:15 PM HY0210 Robert Kuzoff
 09/06-12/22 M Arranged WEB BASED Robert Kuzoff

COMPSCI 181 INTRODUCTION TO DATABASE AND THE WEB (GM) ... This course provides the student with a comprehensive working knowledge of a modern database package including the creation of a database, construction of a wide range of queries, use of forms, and report writing features. The course also gives an introduction to the creation of World Wide Web pages using the Extended Hypertext Markup Language (XHTML).

PREREQ: MATH 141 OR WAIVER OF MATH 141

#1892 Section 01 [units: 3] Gen Ed Math/Natural Sciences (GM)
 09/06-12/22 TR 12:30 PM - 01:45 PM MG0117 Robert Siemann

COMPSCI 215 DISCRETE STRUCTURES ... The course offers a formal approach to the logic of Computer Science, including set theory, methods of proof, discrete probability, sequences, recurrence relations, introduction to graphs, and algorithmic analysis. It also introduces finite state machines, Turing machines, and formal languages and grammars.

PREREQ: MATH 152 OR MATH 243 OR MATH 250

#1910 Section 01 [units: 3]
 09/06-12/22 MW 11:00 AM - 12:15 PM MG0117 Lopamudra Mukherjee

COMPSCI 220 INTERMEDIATE JAVA ... This course teaches more advanced topics in object-oriented program design and the Java programming language. Coverage includes multi-dimensional arrays, methods, error handling, strings, regular expressions, encapsulation, inheritance, polymorphism, generic types, program debugging and testing, database and file processing, event-handling, and graphical user interfaces.

PREREQ: COMPSCI 172 OR (COMPSCI 174 AND CONSENT OF INSTRUCTOR)

#1905 Section 01 [units: 3] NOTE: This is a hybrid course taught both on-line and in the classroom.
 09/06-12/22 R 11:00 AM - 12:15 PM HY0210 Hien Nguyen
 09/06-12/22 Arranged Arranged WEB BASED Hien Nguyen
 #4763 Section 02 [units: 3] NOTE: Restricted to students in the Janesville Parker PIE Program.
 09/06-12/22 Arranged Arranged OFF CAMPUS Jiazhen Zhou PIE PROGRAM
 09/06-12/22 Arranged Arranged OFF CAMPUS Robert Getka PIE PROGRAM

COMPSCI 222 INTERMEDIATE C++ ... This course will cover more advanced issues of C++, including memory management, pointers and user-defined data types. Topics will include reading and writing files, dynamic arrays, implementation of the principles of object oriented design including encapsulation, and inheritance, planning and testing. Students will write complex applications using C++.

PREREQ: COMPSCI 174 OR (COMPSCI 172 AND CONSENT OF INSTRUCTOR)

#1899 Section 01 [units: 3]
 09/06-12/22 MW 11:00 AM - 12:15 PM HY0210 Arnab Ganguly

COMPSCI 223 DATA STRUCTURES ... This course covers issues of data structures, professional software development methodologies including software patterns, and advanced object-oriented techniques. Topics include lists, queues, stacks, and trees. Complex data structures and object-oriented design techniques, including inheritance and polymorphism, are applied to develop larger projects.

PREREQ: COMPSCI 220 WITH A GRADE OF C OR BETTER, OR COMPSCI 222 WITH A GRADE OF C OR BETTER

#1922 Section 01 [units: 3] NOTE: This course is taught in C++ Programming Language (must have taken COMPSCI 222).
 09/06-12/22 TR 02:00 PM - 03:15 PM HY0210 Arnab Ganguly
 #1904 Section 02 [units: 3] NOTE: This course is taught in JAVA Programming Language (must have taken COMPSCI 220).
 09/06-12/22 TR 09:30 AM - 10:45 AM MG0115 Arnab Ganguly

COMPSCI 271 ASSEMBLY PROGRAMMING ... This course covers the use of an assembly language based on the RISC processor architecture including writing, linking, and executing a program. Also covered are number systems, instructions for arithmetic and logical operations, memory access, loops, declaring variables, interrupts, machine language, segments, stacks, procedure writing, and file handling.

PREREQ: COMPSCI 172 OR COMPSCI 174

#1889 Section 01 [units: 3]
 09/06-12/22 MW 02:00 PM - 03:15 PM MG0115 Zachary Oster
 #1911 Section 02 [units: 3]
 09/06-12/22 TR 12:30 PM - 01:45 PM MG0115 Zachary Oster

Start/End Dates Meeting Days Meeting Times Location Instructor Course Topic (if applicable)

COMPSCI 320 CONCEPTS OF PROGRAMMING LANGUAGES ... *An exploration of the core concepts upon which all programming languages are built. Students will apply these concepts to write programs in several specialized programming languages, including functional and logic programming languages. Emphasis is placed upon evaluating the strengths and weaknesses of particular languages for various tasks.*

PREREQ: COMPSCI 223 AND (COMPSCI 215 OR MATH 280)

#1924 Section 01 [units: 3]

09/06-12/22 MW 03:30 PM - 04:45 PM MG0117 Zachary Oster

COMPSCI 332 INTRODUCTION TO ARTIFICIAL INTELLIGENCE ... *This course introduces basic artificial intelligence principles including simple representation schemes, problem solving paradigms, constraint propagation, search strategies and learning approaches. Knowledge representation, natural language processing, gaming, machine learning and user modeling will be explored. Students should have written moderately complex computer programs in a high level language.*

PREREQ: COMPSCI 222 OR COMPSCI 220

#3854 Section 01 [units: 3] NOTE: This is a hybrid course taught both on-line and in the classroom.

09/06-12/22 T 11:00 AM - 12:15 PM HY0210 Hien Nguyen

09/06-12/22 Arranged Arranged WEB BASED Hien Nguyen

COMPSCI 366 DATABASE MANAGEMENT SYSTEMS ... *This course offers an introduction to the design and programming of databases and the implementation of database management systems from a computer science perspective. Contents include the relational model; SQL; database application development; and concepts and algorithms for building database management systems.*

PREREQ: COMPSCI 223 OR CONSENT OF INSTRUCTOR

#1912 Section 01 [units: 3]

09/06-12/22 TR 12:30 PM - 01:45 PM HY0210 Hien Nguyen

COMPSCI 381 JAVASCRIPT AND DHTML ... *JavaScript is a computer language for adding flexibility and functionality to web pages. A powerful language in its own right, it also has the capability to interact with HTML forms, browsers, Java applets, and other objects found on a web page. Students in this course will gain a thorough understanding of JavaScript, and learn to harness its abilities to manage windows, forms, events, cookies, etc.*

PREREQ: COMPSCI 172 OR COMPSCI 174 OR EQUIVALENT PREPARATION AND CONSENT OF INSTRUCTOR

#1920 Section 01 [units: 3]

09/06-12/22 MW 09:30 AM - 10:45 AM HY0210 Yuheng Cao

#1929 Section 02 [units: 3] NOTE: This is a web based class. Required additional course fee is \$150.00.

09/06-12/22 Arranged Arranged WEB BASED Sobitha Samaranyake

COMPSCI 382 SERVER-SIDE SCRIPTING ... *Server-side scripting is key to processing web forms, as well as for automating a wide range of server tasks. This course will provide a thorough introduction to the Server-side scripting languages. Students will learn to create a data-driven web application that uses Structured Query Language (SQL) to access and update the information in a database.*

PREREQ: COMPSCI 172 OR COMPSCI 174 OR EQUIVALENT PREPARATION AND CONSENT OF INSTRUCTOR

#1891 Section 01 [units: 3]

09/06-12/22 TR 05:00 PM - 06:15 PM HY0210 Sobitha Samaranyake

COMPSCI 412 COMPUTER ORGANIZATION AND SYSTEM PROGRAMMING ... *Introduction to organization of modern digital computers - understanding the various components of a computer and their interrelationships. Study of systems programming in C/Linux.*

PREREQ: COMPSCI 271 OR CONSENT

#1894 Section 01 [units: 3]

09/06-12/22 MW 09:30 AM - 10:45 AM MG0115 Lopamudra Mukherjee

COMPSCI 433 THEORY OF ALGORITHMS ... *This course is a survey of algorithms needed for searching, sorting, pattern matching, analyzing graphs, and a variety of other problems of discrete mathematics. Analysis of algorithm efficiency and space/time tradeoffs are discussed.*

PREREQ: COMPSCI 223 AND (COMPSCI 215 OR MATH 280)

#1900 Section 01 [units: 3]

09/06-12/22 MW 11:00 AM - 12:15 PM MG0115 Athula Gunawardena

COMPSCI 462 NETWORK SECURITY ... *This course covers the basic and fundamental cryptographic algorithms and security protocols for computer networks. Network vulnerabilities, attacks on Internet, network monitoring, security at the link, network and transport layers are also covered in the course.*

PREREQ: COMPSCI 223 AND COMPSCI 271 OR CONSENT OF INSTRUCTOR

#1906 Section 01 [units: 3]

09/06-12/22 TR 09:30 AM - 10:45 AM MG0117 Jiazhen Zhou

COMPSCI 476 SOFTWARE ENGINEERING ... *This course introduces concepts and techniques relevant to the production of large software systems. Students are taught a programming method based on the recognition and description of useful abstractions. Topics include: modularity; specification; data abstraction; object modeling; design patterns; and testing.*

PREREQ: MCS 231 OR COMPSCI 223 OR CONSENT OF INSTRUCTOR

#1903 Section 01 [units: 3]

09/06-12/22 TR 05:00 PM - 06:15 PM MG0115 Zachary Oster

Start/End Dates Meeting Days Meeting Times Location Instructor Course Topic (if applicable)

COMPSCI 481 WEB SERVER AND UNIX ADMINISTRATION ... This course is intended to introduce students to Web Server software and UNIX and UNIX-like operating systems from the perspective of the System Administrator. Linux, the fastest growing operating system, will be studied in detail, together with the Apache web server. Web server configuration will be studied, including optimization, security issues and virtual server administration. Additional topics will include shell programming, system monitoring, file systems and the X Windows GUI. This course will focus on common system administration duties on the Linux platform. Students will acquire competency in using shell programming skills to automate the maintenance of server activity. Emphasis will be placed on using Linux as an Internet server.

PREREQ: COMPSCI 172 OR COMPSCI 174 OR EQUIVALENT PREPARATION AND CONSENT OF INSTRUCTOR

#1916 Section 01 [units: 3]

09/06-12/22 MW 05:00 PM - 06:15 PM HY0210 Sobitha Samaranyake

COMPSCI 498R INDEPENDENT STUDY - UNDERGRADUATE RESEARCH ... Study of a selected topic or topics under the direction of a faculty member. Repeatable. Department Consent required.

#1908 Section 01 [units: 1-3]

09/05-12/22 Arranged Arranged WEB BASED Jiazhen Zhou

Dept. Consent

***** GRADUATE LEVEL COURSES *****

COMPSCI 732 MACHINE LEARNING ... This course provides a broad introduction to machine learning and pattern recognition. Topics include but are not limited to Bayesian Inference, SVMs, Clustering and Classification, Decision Trees and Ensemble Methods. Particular focus will be placed on the theoretical understanding of these methods, as well as their practical applications.

PREREQ: ADMISSION TO GRADUATE PROGRAM IN COMPUTER SCIENCE

#3811 Section 01 [units: 3]

09/06-12/22 R 05:00 PM - 07:30 PM MG0117 Lopamudra Mukherjee

Dept. Consent

COMPSCI 733 ADVANCED ALGORITHM DESIGN AND ANALYSIS ... This course introduces students to advanced techniques for the design and analysis of algorithms, and explores a variety of applications. Techniques to be covered include graph representation & Graph traversal, shortest path, minimum spanning tree, linear programming, network flow, randomization, and approximation algorithms. NP-complete problems and reductions will also be studied.

PREREQ: ADMISSION TO GRADUATE PROGRAM IN COMPUTER SCIENCE

#3812 Section 01 [units: 3]

09/06-12/22 T 05:00 PM - 07:30 PM MG0122 Athula Gunawardena

Dept. Consent

COMPSCI 764 CLOUD COMPUTING ... The purpose of this course is to understand the core technical ideas and concepts in designing and using cloud computing systems, covering a broad range of topics that include cloud system architectures, cloud storage and management, cloud programming frameworks, virtualization and resource management, and datacenter networks. It is a blend of lecture, paper readings/presentations, and programming practice using a cloud.

PREREQ: ADMISSION TO GRADUATE PROGRAM IN COMPUTER SCIENCE

#3813 Section 01 [units: 3]

09/06-12/22 M 05:00 PM - 07:30 PM MG0115 Jiazhen Zhou

Dept. Consent

COMPSCI 766 ADVANCED DATABASES ... This course covers advanced database management system design principles and techniques. Course material includes both fundamental principles and current research. Possible topics include query processing and optimization, transaction processing, distributed databases, object-oriented databases, data warehousing, and data mining.

PREREQ: ADMISSION TO GRADUATE PROGRAM IN COMPUTER SCIENCE

#3814 Section 01 [units: 3]

09/06-12/22 W 05:00 PM - 07:30 PM MG0115 Hien Nguyen

Dept. Consent