

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**

#2117	Section 01	[units: 3]	Gen Ed Math/Natural Sciences (GM)	NOTE: This a hybrid course which meets both online and in the classroom.		
	01/19-05/17	Arranged	Arranged	WEB BASED	Jiehui Ma	
	01/19-05/17	W	08:00 AM - 09:15 AM	MG0115	Jiehui Ma	
#2118	Section 02	[units: 3]	Gen Ed Math/Natural Sciences (GM)	NOTE: This a hybrid course which meets both online and in the classroom.		
	01/19-05/17	Arranged	Arranged	WEB BASED	Jiehui Ma	
	01/19-05/17	W	12:30 PM - 01:45 PM	MG0115	Jiehui Ma	
#2124	Section 03	[units: 3]	Gen Ed Math/Natural Sciences (GM)	NOTE: This a hybrid course which meets both online and in the classroom.		
	01/19-05/17	T	08:00 AM - 09:15 AM	HY0210	Tina Y Cao	
	01/19-05/17	Arranged	Arranged	WEB BASED	Tina Y Cao	
#2130	Section 04	[units: 3]	Gen Ed Math/Natural Sciences (GM)			
	01/19-05/17	W	06:30 PM - 09:00 PM	HH3202	Robert L Horton	
#2135	Section 05	[units: 3]	Gen Ed Math/Natural Sciences (GM)			
	01/19-05/17	T	06:30 PM - 09:00 PM	HY0210	Robert L Horton	
	03/15-05/17	T	06:30 PM - 09:00 PM	HH3202	Robert L Horton	
#2166	Section 06	[units: 3]	Gen Ed Math/Natural Sciences (GM)	NOTE: This is a web-based class. Required additional course fee is \$150.00. This class uses Office 2013; students will need to have access to this software to successfully complete this class.		
	01/19-05/17	Arranged	Arranged	WEB BASED	Lopamudra Mukherjee	
#2983	Section 07	[units: 3]	Gen Ed Math/Natural Sciences (GM)	NOTE: This is a web-based class. Required additional course fee is \$150.00. This class uses Office 2013; students will need to have access to this software to successfully complete this class.		
	01/19-05/17	Arranged	Arranged	WEB BASED	Lopamudra Mukherjee	

**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**

#3136	Section 01	[units: 3]	Gen Ed Math/Natural Sciences (GM)			
	01/19-05/17	MW	08:00 AM - 09:15 AM	HY0210	Robert K 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**

#2119	Section 01	[units: 3]	Gen Ed Math/Natural Sciences (GM)			
	01/19-05/17	MW	02:00 PM - 03:15 PM	HY0210	Jiehui Ma	
#2120	Section 02	[units: 3]	Gen Ed Math/Natural Sciences (GM)			
	01/19-05/17	TR	08:00 AM - 09:15 AM	MG0115	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**

#2122	Section 01	[units: 3]	Gen Ed Math/Natural Sciences (GM)			
	01/19-05/17	MW	09:30 AM - 10:45 AM	MG0115	Cheng Thao	
#2123	Section 02	[units: 3]	Gen Ed Math/Natural Sciences (GM)			
	01/19-05/17	TR	11:00 AM - 12:15 PM	MG0115	Hien M Nguyen	
#4550	Section 03	[units: 3]	Gen Ed Math/Natural Sciences (GM)	NOTE: Restricted to students in the Homestead HS cohort		
	01/19-05/17	Arranged	Arranged	OFF CAMPUS	Scott T Nettlesheim	PIE PROGRAM
	01/19-05/17	Arranged	Arranged	OFF CAMPUS	Hien M Nguyen	PIE PROGRAM

**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**

#2137	Section 01	[units: 3]	Gen Ed Math/Natural Sciences (GM)			
	01/19-05/17	MW	05:00 PM - 06:15 PM	HY0210	Sobitha W Samaranyake	
#2149	Section 02	[units: 3]	Gen Ed Math/Natural Sciences (GM)			
	01/19-05/17	TR	09:30 AM - 10:45 AM	MG0115	Hien M Nguyen	

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

#2133	Section 01	[units: 3]	Gen Ed Math/Natural Sciences (GM)				
01/19-05/17	TR	12:30 PM - 01:45 PM	MG0117	Robert P 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**

#2161	Section 01	[units: 3]					
01/19-05/17	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. Unreq: MCS 220 and COMPSCI 222

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

#2150	Section 01	[units: 3]					
01/19-05/17	MW	03:30 PM - 04:45 PM	MG0115	Cheng Thao			
#2157	Section 02	[units: 3]					
01/19-05/17	TR	03:30 PM - 04:45 PM	MG0115	Cheng Thao			

**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)**

#2138	Section 01	[units: 3]					
01/19-05/17	MW	11:00 AM - 12:15 PM	MG0115	Jiazhen Zhou			
#2158	Section 02	[units: 3]					
01/19-05/17	TR	12:30 PM - 01:45 PM	HY0210	Jiazhen Zhou			

**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 structure and object-oriented design technique, including inheritance and polymorphism, are applied to develop and large projects.

**UNREQ: MCS 231, COMPSCI 231, COMPSCI 223**

**PREREQ: COMPSCI 222 OR MCS 220**

#2141	Section 01	[units: 3]	NOTE: This course is taught in the Java Programming Language.				
01/19-05/17	MW	09:30 AM - 10:45 AM	HY0210	Hien M Nguyen			
#2156	Section 02	[units: 3]	NOTE: This course is taught in the C++ Programming Language.				
01/19-05/17	TR	11:00 AM - 12:15 PM	HY0210	Athula D. A. Gunawardena			

**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**

#2121	Section 01	[units: 3]					
01/19-05/17	MW	02:00 PM - 03:15 PM	MG0115	Zachary J Oster			
#2159	Section 02	[units: 3]					
01/19-05/17	TR	12:30 PM - 01:45 PM	MG0115	Zachary J Oster			

**COMPSCI 322 COMPUTER LANGUAGES AND COMPILERS ...** This course is an introduction to the theory of computer languages and the construction of assemblers and compilers. Students will write a small assembler and a small compiler and will compare features of many computer languages.

**PREREQ: COMPSCI 271 AND EITHER COMPSCI 223 OR MCS 231**

#2160	Section 01	[units: 3]					
01/19-05/17	MW	03:30 PM - 04:45 PM	MG0117	Zachary J Oster			

**COMPSCI 347 SCIENTIFIC COMPUTING ...** This course provides the applied scientist with the basic tools needed to perform computing within a scientific context. The computational aspects focus on two major areas: (1) the development and implementation of numerical algorithms in computer programs, and (2) the analysis and visualization of complex data sets. Numerical methods covered include finding roots of nonlinear equations, solving linear systems, the eigenvalue problem, numerical integration, the initial value problem, and data fitting. The high-level computer packages used are Mathematic and Matlab.

**PREREQ: MATH 253 WITH A C OR BETTER OR CONSENT OF INSTRUCTOR**

#2167	Section 01	[units: 3]					
01/19-05/17	TR	02:00 PM - 03:15 PM	HY0210	Leon M Arriola			

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

**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**

#2151 Section 01 [units: 3]

01/19-05/17 TR 09:30 AM - 10:45 AM HY0210 Tina Y Cao

**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**

#2152 Section 01 [units: 3]

01/19-05/17 TR 03:30 PM - 04:45 PM HY0210 Sobitha W 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**

#2162 Section 01 [units: 3]

01/19-05/17 M 05:00 PM - 07:30 PM MG0115 Athula D. A. Gunawardena

**COMPSCI 424 OPERATING SYSTEMS ...** This course covers problems encountered by computer operating systems including resource management, memory management, virtual memory, concurrent programming, and distributed systems. Algorithms are presented for deadlock, memory paging, job scheduling, memory allocation, and performance measurement. Operating systems such as WINDOWS, DOS, UNIX, VMS, and MVS are discussed.

**PREREQ: COMPSCI 271 AND EITHER COMPSCI 223 OR MCS 231 OR CONSENT OF INSTRUCTOR**

#3020 Section 01 [units: 3]

01/19-05/17 MW 11:00 AM - 12:15 PM HY0210 Zachary J Oster

**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)**

#2155 Section 01 [units: 3]

01/19-05/17 TR 09:30 AM - 10:45 AM MG0117 Lopamudra Mukherjee

**COMPSCI 434 THEORY OF COMPUTATION ...** This course is an introduction to the theory of computation. It discusses finite automata and Turing machines as models of computation. It includes discussions of regular sets, recursive and partially recursive functions, context free grammars, the halting problem, undecidable problems, complexity, and Np-completeness.

**PREREQ: MATH 280 OR COMPSCI 215**

#2154 Section 01 [units: 3]

01/19-05/17 TR 11:00 AM - 12:15 PM MG0117 Thomas L. Drucker

**COMPSCI 460 COMPUTER NETWORKING ...** This course introduces the principles, applications, protocols, and architectures of data networks. It places an equal emphasis on practical experience as well as theoretical foundations. There will be abundant network programming and lab activities around application layer, transportation layer, and routing.

**PREREQ: COMPSCI 223 AND COMPSCI 271 OR CONSENT OF INSTRUCTOR**

#2168 Section 01 [units: 3]

01/19-05/17 MW 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**

#2165 Section 01 [units: 3]

01/19-05/17 TR 02:00 PM - 03:15 PM MG0115 Cheng Thao

**COMPSCI 482 Advanced Web Application Development ...** This course will introduce students to popular technologies utilized in building database-driven Web applications. These include scripting languages (PHP, Ruby, JSP, NET), Web application frameworks, Web application design patterns, Web services, databases, and security.

**PREREQ: COMPSCI 381 AND COMPSCI 382 OR EQUIVALENT PREPARATION OR CONSENT OF INSTRUCTOR**

#2126 Section 01 [units: 3]

01/19-05/17 TR 05:00 PM - 06:15 PM HY0210 Sobitha W Samaranyake

**COMPSCI 493 INTERNSHIP IN COMPUTER SCIENCE ...** S/NC grade basis only.

#2170 Section 01 [units: 3]

01/19-05/17 Arranged Arranged Zachary J Oster

Dept. Consent

S/NC Grading Basis Only

#4491 Section 02 [units: 3]

01/19-05/17 Arranged Arranged Cheng Thao

S/NC Grading Basis Only

<u>Class#</u>	<u>Section</u>	<u>(Units)</u>	<u>General Education Designation (if any)</u>	<u>Start/End Dates</u>	<u>Meeting Days</u>	<u>Meeting Times</u>	<u>Location</u>	<u>Instructor</u>	<u>Course Topic (if applicable)</u>	<u>Consent</u>
#4492	Section 03	[units: 3]		01/19-05/17	Arranged	Arranged		Hien M Nguyen		
										S/NC Grading Basis Only
<b>COMPSCI 498 INDEPENDENT STUDY IN COMPUTER SCIENCE ... Study of a selected topic or topics under the direction of a faculty member.</b>										
<b>Repeatable. Department Consent required.</b>										
#3495	Section 01	[units: 1-3]		01/19-05/17	Arranged	Arranged		Hien M Nguyen	NOTE: COMPSCI 332 - INTRODUCTION TO ARTIFICIAL INTELLIGENCE	Dept. Consent
									COMPSCI 332: INTRO TO AI	
#4518	Section 02	[units: 1-3]		01/19-05/17	Arranged	Arranged		Tina Y Cao		Dept. Consent
#4579	Section 03	[units: 3]		01/19-05/17	Arranged	Arranged		Hien M Nguyen	GAME ENGINE	Dept. Consent
#4604	Section 04	[units: 1-3]		01/19-05/17	Arranged	Arranged		Cheng Thao		Dept. Consent
<b>COMPSCI 498R INDEPENDENT STUDY - UNDERGRADUATE RESEARCH ... Study of a selected topic or topics under the direction of a faculty member.</b>										
<b>Repeatable. Department Consent required.</b>										
#2136	Section 01	[units: 1-3]		01/19-05/17	Arranged	Arranged		Jiazhen Zhou		Dept. Consent
#2142	Section 02	[units: 1]		01/19-05/17	Arranged	Arranged		Sobitha W Samaranayake		Dept. Consent