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Degrees offered in computing at The Ohio State University and managed by the Department of Computer Science and Engineering are featured in this brochure.

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Introduction

The purpose of this brochure is to describe the various baccalaureate-level computing degree programs offered through the CSE Department, as well as additional degrees offered through other departments and colleges that have a strong computing component. These options allow students to explore established career options or newly emerging fields they discover to be of interest to them as they progress through the program.

The dynamic and rapidly evolving field of computing is an area of study that encompasses a broad spectrum of theoretical and practical topics. Typical subjects of study include areas such as design and analysis of algorithms and data structures; principles of programming language design; system software design; organization of computer hardware; computer networks; operating system principles; software engineering; database systems; artificial intelligence; computer graphics; network security and the theoretical foundations of computing.

The field of computing involves a broad spectrum of other fields of knowledge, and there are a variety of approaches to studying computing. In recognition of this situation, the CSE Department offers undergraduate major and minor programs through two different colleges: the College of Engineering and the College of Arts and Sciences.

The different undergraduate programs cater to the different interests of students. The BS programs from the College of Engineering (BS CSE) and the College of the Arts and Sciences (BS CIS) prepare computing students for employment in the computing profession and for graduate study in computer science. The BA in Arts and Sciences (BA CIS) prepares CS students to use computers effectively in other fields to which computers can be applied, allowing the opportunity to combine the study of computer science with study in a related field.

Three other programs that have a strong computing component are the BS ECE (Computer Engineering option) offered in the Department of Electrical & Computer Engineering in the College of Engineering, the BSBA (Information Systems option) in the Fisher College of Business, and the BS with a major in Data Analytics in the College of Arts and Sciences. The BS ECE program offers students a solid grounding in electrical engineering and computer hardware. The BSBA program prepares students to use computers effectively in business emphasizing techniques of particular interest to commercial computing, while providing a strong background in business. Data Analytics provides students with a computer science and statistical background to enable them to collect and analyze large data sets in different contexts. Students in the three programs are required to take a range of core CSE classes, ensuring that they have a solid background in computing fundamentals.

Students who are pursuing other degree programs and who have strong interest in computing may want to consider a minor in either Computer and Information Science or Computational Science and Engineering. The requirements for these minors are also described in this brochure.

Enrollment Notice for Admission to Major

In order to ensure that majors will be able to complete their programs expeditiously, the Department gives scheduling priority in upper-division courses to CSE and CIS majors. All students who wish to become a CSE or CIS major must apply for formal acceptance into the major and will be admitted to the desired major upon completion of the prerequisites outlined below.

The prerequisites for the CSE major (BS CSE) in Engineering are below:

1. Completion of CSE 2221
2. Completion of ENGR 1100.xx
3. Completion of ENGR 1181 and 1182
4. Completion of Math 1151
5. Completion of Physics 1250
6. Completion of English 1110.xx
7. At least 15 credit hours earned at Ohio State
8. An MPHR, over CSE courses that can be included in the major program, of at least 2.0
9. A CPHR that is adjusted once each year, according to an enrollment management scheme. Through Spring 2017, the CPHR requirement is 3.2

The prerequisites for the CIS majors (BS CIS, BA CIS) in Arts and Sciences are below:

1. Completion of CSE 2221
2. Completion of ASC 1100.xx
3. Completion of Math 1151
4. Completion of Physics 1250 (only for BS CIS)
5. Completion of English 1110.xx
6. At least 15 credit hours earned at Ohio State
7. An MPHR, over CSE courses that can be included in the major program, of at least 2.0
8. A CPHR that is adjusted once each year, according to an enrollment management scheme. Through Spring 2017, the CPHR requirement is 3.2

Application to Major forms are online at <https://cse.osu.edu> and should be submitted during the semester in which the above requirements will be met.

Students who are not admitted to the major at the end of Spring Semester 2017 will be subject to and must meet any changes to the prerequisites in effect after Spring 2017. Any and all changes will be announced on the department website and posted in the CSE Advising Office at least one year in advance of the effective date of the change(s).

Additional Majors:

BSBA (Information Systems)

The Fisher College of Business has similar competitive admissions standards for the Information Systems specialization. Please contact the College advisors in 120 Schoenbaum Hall for additional information about the curriculum and admission to major. <http://fisher.osu.edu/>

BS ECE (Electrical & Computer Engineering, Computer Specialization)

The BS ECE is a comprehensive Electrical & Computer Engineering degree. The program is a balanced study of hardware and software as applied to practical computer systems. Please consult with the Electrical & Computer Engineering Department in 205 Drees Labs for additional information about curriculum and admission to major. <http://ece.osu.edu>.

BS with a major in Data Analytics

The Data Analytics major is the application of fundamental scientific principles towards the analysis of large, complex data sets to answer questions, extract patterns, and predict behavior. For information about the curriculum and admission to major, please visit <http://data-analytics.osu.edu>.

Scheduling Priorities

BS ECE (Computer Engineering Specialization) majors, BSBA (Information Systems) majors, and Data Analytics majors will be given the same priority as CSE and CIS majors for scheduling upper-division CSE courses that are **required** for their program; however, they will be treated as non-majors for elective CSE courses.

Minors are treated as non-majors for scheduling CSE courses and do not receive special priority for this purpose.

BS CSE Program Educational Objectives and Student Outcomes

Preamble

The term *Program Educational Objective* denotes, as specified in the EC Criteria (see [ABET web site](#)), the expected accomplishments of graduates of the program during the several years following graduation. *Student Outcomes*, again as specified by EC, are statements that describe what students are expected to know or be able to do by the time of graduation from the program; i.e., achievement of the outcomes should "foster attainment of the objectives".)

There are three educational objectives, numbered (I) through (III). There are fourteen student outcomes, numbered (a) through (n). The outcomes (a) through (k) correspond (but are not identical) to the EC outcomes (3.a) through (3.k); (l), (m), and (n) correspond to the CAC specified outcomes.

BS CSE Program Objectives

In the years immediately following their graduation:

- I. Graduates of the program will be employed in the computing profession, and will be engaged in learning, understanding, and applying new ideas and technologies as the field evolves.
- II. Graduates with an interest in, and aptitude for, advanced studies in computing will have completed, or be actively pursuing, graduate studies in computing.
- III. Graduates will be informed and involved members of their communities, and responsible engineering and computing professionals.

BS CSE Program Outcomes

Students in the BS-CSE program will attain:

- a. an ability to apply knowledge of computing, mathematics including discrete mathematics as well as probability and statistics, science, and engineering;
- b. an ability to design and conduct experiments, as well as to analyze and interpret data;
- c. an ability to design, implement, and evaluate a software or a software/hardware system, component, or process to meet desired needs within realistic constraints such as memory, runtime efficiency, as well as appropriate constraints related to economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability considerations;
- d. an ability to function on multi-disciplinary teams;
- e. an ability to identify, formulate, and solve engineering problems;
- f. an understanding of professional, ethical, legal, security and social issues and responsibilities;
- g. an ability to communicate effectively with a range of audiences;
- h. an ability to analyze the local and global impact of computing on individuals, organizations, and society;
- i. a recognition of the need for, and an ability to engage in life-long learning and continuing professional development;
- j. a knowledge of contemporary issues;
- k. an ability to use the techniques, skills, and modern engineering tools necessary for practice as a CSE professional;
- l. an ability to analyze a problem, and identify and define the computing requirements appropriate to its solution;
- m. an ability to apply mathematical foundations, algorithmic principles, and computer science theory in the modeling and design of computer-based systems in a way that demonstrates comprehension of the tradeoffs involved in design choices;
- n. an ability to apply design and development principles in the construction of software systems of varying complexity.

BS CSE

College of Engineering

A Bachelor of Science in Computer Science and Engineering (BS CSE) is offered through the College of Engineering. This program offers students a general education in engineering, physical sciences, and mathematics, along with intensive study in computer science and engineering. The core curriculum in computer science includes courses in programming and software development, systems, and ethics.

Requirements for the Major

CSE Core (22 hours)

CSE 2221 Software I	(4)
CSE 2231 Software II	(4)
CSE 2321 Foundations I	(3)
CSE 2331 Foundations II	(3)
CSE 2421 Systems I	(4)
CSE 2431 Systems II	(3)
CSE 2501 Professionalism and Ethics	(1)

Non-CSE Core (15 hours)

ECE 2060 Electrical and Computer Engineering I	(3)
ECE 2020 Electrical and Computer Engineering II	(3)
Math 3345 Foundations of Higher Math.....	(3)
Math 2568 Linear Algebra.....	(3)
Stat 3470 Probability and Statistics	(3)

CSE Core Choices⁺ (20 hours)

CSE 390X Project.....	(4)
CSE 3231 or 3241 Software Eng or Databases.....	(3)
CSE 3321 or 3341 Automata/Prog Lang	(3)
CSE 3421 or 3461 Systems: Arch/Networking	(3)
CSE 3521 or 3541 Applications: AI/Graphics.....	(3)
CSE 591X Capstone	(4)

Electives⁺ (25 hours)

Mathematics/Statistics/Science Electives	(8)
Technical Electives**	(17)

Engineering Core (20 hours)

Mathematics 1151, 1172	(10)
Physics 1250	(5)
Engineering 1181, 1182	(4)
Engineering 1100.xx	(1)

General Education (24 hours)

Writing Level I and II	(6)
Literature.....	(3)
Arts	(3)
Historical Study.....	(3)
Social Science I and II.....	(6)
Culture and Ideas: Ethics.....	(3)

⁺Students are required to choose a **specialization option**, which includes specific core choice and technical elective coursework. See Specialization Options on p. 8 for information about each option.

**Technical Electives:

- At least 9 of the 17 hours must be CSE courses at the 3000-level or above; the remaining 8 hours may be letter-graded non-CSE courses at the 2000 level or higher approved by the advisor.
- At most 1 hour of CSE 425X.
- At most 2 hours total of CSE 4193, 4193H, 4998, 4998H, 4999, 4999H.
- The CSE Advising Office can suggest minor programs of which 8 hours may be counted as Technical Electives.

MINIMUM TOTAL HOURS FOR DEGREE: 126

ACCREDITATION STATEMENT

The BS CSE program is accredited by the Engineering Accreditation Commission (EAC) and the Computing Accreditation Commission (CAC), both of ABET, Inc., <http://www.abet.org>

BS CIS

College of Arts and Sciences

Both a Bachelor of Science (BS) and a Bachelor of Arts (BA) with a major in Computer and Information Science are offered through the College of Arts and Sciences. These programs combine a broad liberal arts background with specialized study in computer science. This page describes the BS CIS program.

Requirements for the Major

CSE Core (22 hours)

CSE 2221 Software I.....	(4)
CSE 2231 Software II.....	(4)
CSE 2321 Foundations I.....	(3)
CSE 2331 Foundations II.....	(3)
CSE 2421 Systems I.....	(4)
CSE 2431 Systems II.....	(3)
CSE 2501 Professionalism and Ethics.....	(1)

Non-CSE Core (14 hours)

Physics 1250 Physics I.....	(5)
ECE 2060 Electrical and Computer Engineering I.....	(3)
Math 3345 Foundations of Higher Math.....	(3)
Stat 3470 Probability and Statistics.....	(3)

CSE Core Choices⁺ (20 hours)

CSE 390X Project.....	(4)
CSE 3231 or 3241 Software Eng or Databases.....	(3)
CSE 3321 or 3341 Automata/Prog Lang.....	(3)
CSE 3421 or 3461 Systems: Arch/Networking.....	(3)
CSE 3521 or 3541 Applications: AI/Graphics.....	(3)
CSE 591X Capstone.....	(4)

Electives⁺ (21 hours)

Science Elective*.....	(5)
Technical Electives**.....	(16)

⁺Students are required to choose a **specialization option**, which includes specific core choice and technical elective coursework. See Specialization Options on p. 8 for information about each option

Mathematics/Other (11 hours)

ASC/NMS 1100.xx Survey.....	(1)
Math 1151 Calculus I.....	(5)
Math 1152 Calculus II.....	(5)

General Education (36 hours)

Writing Level I & II.....	(6)
Literature.....	(3)
Arts.....	(3)
Historical Study.....	(3)
Social Science 1 & II.....	(6)
Culture & Ideas or Historical Study.....	(3)
Foreign Language.....	(12)

*Science Elective: This must be chosen to meet the ASC GE requirements. That is, Physics 1250 plus other science course(s) must include a physical science and a biological science lab; and must add to at least 10 hours. Since there are no 5-hr bio lab courses, this will mean a total of 3 courses including a bio lab and another science course for a minimum total of 12 hours. See ASC website for full details (ascadvising.osu.edu)

**Technical Electives:

- At least 8 of the 16 hours must be CSE courses at the 3000-level or above; the remaining 8 hours may be letter-graded non-CSE courses approved by the advisor.
 - At most 1 hour of CSE 425X.
 - At most 2 hours total of CSE 4193, 4193H, 4998, 4998H, 4999, 4999H.
- The CSE Advising Office can suggest tracks based on interest.

MINIMUM TOTAL HOURS FOR DEGREE: 124

Note: Arts and Sciences College requires that students earn at least a “C-” or better for all courses listed for the major

ACCREDITATION STATEMENT

The BS CIS program is accredited through The Ohio State University’s accreditation by the Higher Learning Commission. It has not sought and is not accredited by a commission of ABET, Inc.

Specialization Options for BS CSE and BS CIS

Artificial Intelligence (AIT)

- Required courses: CSE 3521, 5522; one of CSE 5523, 5524, 5525, 5526
- Recommended courses: CSE 5523, 5524, 5525, 5526, 5914

Computer Graphics and Game Design (CGG)

- Required courses: CSE 3902, 3541; one of: CSE 5542, 5543, 5544, 5545, 5912
- Recommended courses: CSE 5542, 5543, 5544, 5545, 5912

Database Systems and Data Analytics (DBA)

- Required courses: CSE 3241, 5242; one of CSE 5243, 5523
- Recommended courses: CSE 5243, 5523

Information and Computation Assurance (ICA)

- Required courses: CSE 3461, 4471; one of CSE 5472, 5473
- Recommended courses: CSE 3901, 5351, 5432; relevant courses in business, econ, law

Computer Networking (CNT)

- Required courses: CSE 3461; two of: CSE 5432, 5462, 5463, 5472, 5473
- Recommended courses: CSE 3901, 5351, 5432, 5462, 5463, 5472, 5473

Computer Systems (CSY)

- Required courses: CSE 3421; CSE 5433 or 5441; 3 additional hours from CSE 5433, 5441, 3461, 5243
- Recommended courses: CSE 5433, 5434, 5441, 6421*, 6431*, 6441*

Software Engineering (SWS)

- a) Required courses: CSE 3231, 3232; one of: CSE 3341, 5234, 5235, 5236
- b) Recommended courses: CSE 3341, 5234, 5235, 5236

Individualized Option (IND)

- Recommended courses: Students should consult with their faculty advisors to identify the most reasonable set of courses that would be appropriate, given their specific interests.

*Courses available only by petition

BA CIS

College of Arts and Sciences

Requirements for the Major

CSE Core (20 hours)

CSE 2221 Software I.....	(4)
CSE 2231 Software II	(4)
CSE 2321 Foundations I.....	(3)
CSE 2421 Systems I.....	(4)
CSE 2501 Professionalism and Ethics.....	(1)
CSE 390X Project	(4)

Mathematics/Science (27 hours)

ASC/NMS 1100.xx Survey.....	(1)
Math 1151 Calculus I.....	(5)
Math 1152 Calculus II	(5)
Statistics 2450 or higher Data Analysis	(3)
Science*.....	(10)
Additional Math or Science	(3)

Related Field Core (12 hours)

- Intellectually coherent selection of courses with a clear relationship of the related field to computing;
- At least 6 hours must be at the 2000 level or above;
- The CSE Advising Office can suggest possible related fields based on student's interests.

General Education Curriculum (36 hours)

Writing I & II	(6)
Literature	(3)
Arts	(3)
Historical Study	(3)
Social Sciences 1 & 2	(6)
Culture & Ideas or Historical Study.....	(3)
Foreign Language	(12)

Electives (27 hours)

- Must include at least 13 hours of CSE elective courses chosen from CSE 2331, CSE 2431, and other CSE courses at the 3000-level or above;
- Must include at least 6 hours of Related Field courses at the 2000 level or above;
- May include up to 4 hours of technical courses that are neither CSE courses nor Related Field courses; these must be from courses designated by the CSE Undergraduate Studies Committee; the remaining hours must be from CSE and the Related Field;
- At most 1 hour of CSE 425X;
- At most 2 hours total of CSE 4193, 4193H, 4998, 4998H, 4999, 4999H
- The CSE Advising Office can suggest tracks based on student interest.

MINIMUM TOTAL HOURS FOR DEGREE: 122

*Science: These hours must be chosen to meet the ASC GE requirements. That is, they must include three courses, with at least one in GE biological science, one in GE physical science, and at least one course with a lab; must add up to a minimum of 10 hours.

Note: Arts and Sciences College requires that students earn at least a “C-” or better for all courses listed for the major

ACCREDITATION STATEMENT

The BA CIS program is accredited through The Ohio State University’s accreditation by the Higher Learning Commission. It has not sought and is not accredited by a commission of ABET, Inc.

Minor in Computer and Information Science

The minor in Computer and Information Science (CIS) is intended for students who wish to learn more about programming and software development but who do not want to pursue a major in computer science.

Students must follow University rules regarding overlaps with the General Education and the major, as well as minimum grade and credit hour requirements, the use of transfer credit, and any other applicable guidelines.

Students may declare the CIS minor at any time by discussing the minor with their major or college advisor. Students are encouraged but not required to meet with a CSE advisor prior to declaring it.

An approved minor program form from the CSE Advising Office must be filed prior to graduation.

Student without any programming experience in C++ or Java must take one of the prerequisite courses. Students with programming experience in C++ or Java but no college credit for it may be able to test out of the prerequisite course. Contact the CSE Advising Office (ugadvising@cse.ohio-state.edu) for more information.

All Requirements for the Minor must be completed.

Elective courses most commonly selected are CSE 2331, 3241, 4251, 4252, 4253, 4254, 4471, and 5052. MATH 3345 is an option for students not pursuing a Math major. Students planning to follow a track below may be able to register for a recommended course only after all majors have been accommodated.

Prerequisite for the Minor:

CSE 1222: Introduction to Computer Programming in C++ (3 hrs)

or

CSE 1223: Introduction to Computer Programming in Java (3 hrs)

Requirements for the Minor (minimum of 17 credit hours):

- 1) **Required courses** (11 hrs)
 - a) Software:
 - CSE 2122: Data Structures Using C++ (3 hrs)
 - or
 - CSE 2123: Data Structures Using Java (3 hrs)
 - b) Foundations:
 - CSE 2321: Foundations I: Discrete Structures (3 hrs)
 - c) Systems:
 - CSE 3430: Overview of Computer Systems for Non-Majors (4 hrs)
 - d) Computing Ethics:
 - CSE 2501: Social, Ethical, and Professional Issues in Computing (1 hr)
- 2) Elective courses (minimum of 6 hrs)
 - a) Courses must be chosen from CSE 2331 and CSE courses at the 3000 level or above
 - b) Not more than 2 hours of CSE 425X courses may be used toward the minor
 - c) The following tracks are recommended (several of these courses have additional prerequisites):
 - i) Graphics: CSE 3541, 3902
 - ii) AI: CSE 3521; one of 5522, 5523, 5524, 5525, 5526
 - iii) Networking: CSE 3461; one of CSE 3901, 4471, 5462, 5472, 5473
 - iv) Software Engineering: CSE 3231; one of 3232, 5234, 5236
 - v) Databases: CSE 3241, 5242
 - vi) Programming Languages: CSE 3341; one of 3231, 3901
 - vii) Theory: CSE 2331; one of 3321, 5351, 5361

Minor in Computational Science and Engineering

The Minor in Computational Science and Engineering is designed for science and engineering majors interested in applying computational techniques to address problems in their own major. The program is also appropriate for CSE/CIS majors interested in numerical and computational aspects of Computer Science.

Students must follow University rules regarding overlaps with the General Education and the major, as well as minimum grade and credit hour requirements, the use of transfer credit, and any other applicable guidelines.

Prerequisites: Programming and Algorithms (one course)

Intro to Computer Programming in MATLAB	CSE/ENGINEER 1221	(2)
Intro to Computer Programming in C++	CSE/ENGINEER 1222	(3)
Intro to Computer Programming in Java	CSE 1223	(3)

Core (Required): Simulation and Modeling (one course)

Finite Element Applications in BME	BIOMEDE 5430	(3)
Modeling and Simulation	CHBE 5790	(3)
Stochastic Modeling and Simulation	ISE 4100	(3)
Applied Finite Element Method	MECHENG 5139	(3)
Modeling and Simulation Lab I	MATSCEN 2321	(3)

Core (Required): Numerical Methods (one course)

Numerical Methods in Aerospace Engineering	AEROENG 3581	(3)
Numerical Analysis Methods for Civ/Env Eng Apps.....	CIVILEN 2060	(4)
Numerical Methods	CSE 5361	(3)
Introduction to Computational Electromagnetics	ECE 5510	(3)
Beginning Scientific Computing	MATH 3607	(3)
Introduction to Numerical Methods	MECHENG 2850	(3)

Discipline-Specific (Required): Capstone Research/Internship

Computationally oriented capstone course or individual research		≥ (2)
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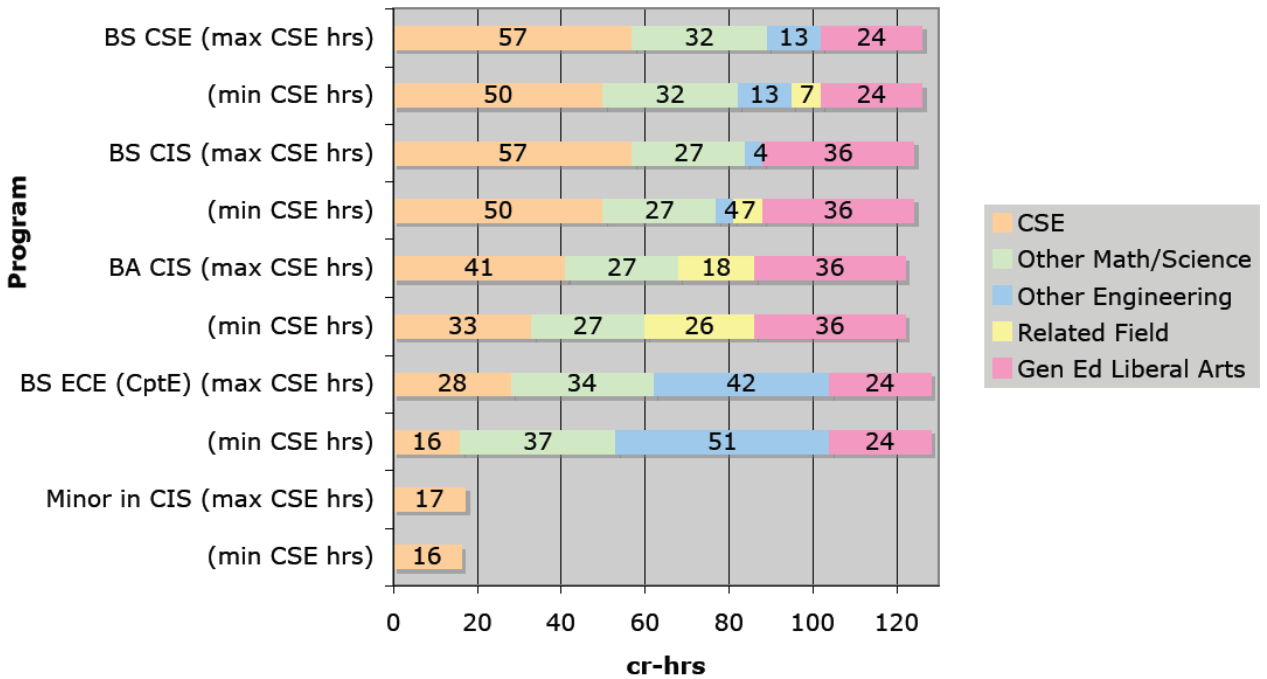
Discipline-Specific (Required): Computational Study(one course) (≥3 hrs)

Introduction to Computational Aerodynamics	AEROENG 5615	(3)
Computational Chemistry.....	CHEM 5440	(3)
Foundations II: Data Structures and Algorithms	CSE 2331	(3)
Systems II: Introduction to Operating Systems	CSE 2341	(3)
Introduction to Database Systems	CSE 3241	(3)
Principles of Programming Languages.....	CSE 3341	(3)
Introduction to Computer Architecture	CSE 3421	(3)
Computer Networking and Internet Technologies.....	CSE 3461	(3)
Survey of Artificial Intelligence I: Basic Techniques	CSE 3521	(3)
Computer Game and Animation Techniques	CSE 3541	(3)
Introduction to Computational Electromagnetics	ECE 5510	(3)
Computational Materials Modeling	MATSCEN 6756	(3)

Electives (one course)

Introduction to Parallel Computing	CSE 5441	(3)
Introduction to Scientific Visualization	CSE 5544	(3)
Economic Evaluation and Optimization in Civ/EnvEng	CIVILEN 3080	(3)
Optimization for Static and Dynamic Systems	ECE 5759	(3)
Optimization for Enterprise Systems	ISE 3200	(3)
Optimization for System Design	ISE 3210	(3)
Linear Optimization.....	ISE 5200	(3)
Materials Selection	MATSCEN 4181	(3)
Differential Equations and Their Applications	MATH 2255	(3)
Ordinary and Partial Differential Equations	MATH 2415	(3)

Distribution of cr-hrs in Computing Undergraduate Programs



Computer Science and Engineering Undergraduate Courses

CSE Course Syllabi are available at the following website:

<http://coe-portal.cse.ohio-state.edu/pdf-exports/CSE/>

Departmental Resources and Supplemental Activities

In addition to the regular curriculum, students may seek intellectual and professional enrichment through departmental events and various university-sponsored programs.

Faculty

The CSE teaching faculty includes 36 professors with Ph.D.'s covering a wide variety of computing areas; several lecturers and instructors with M.S. or PhD degrees in computing; and about 70 graduate teaching associates who handle recitation sections of introductory courses, assist in computing labs, and help to grade upper-level courses. With few exceptions, course section sizes are restricted to 40 to encourage teacher-student interaction. All CSE and CIS majors are assigned an academic advisor and a faculty advisor who can offer technical course and career suggestions.

Computing Facilities

In the OSU Department of Computer Science and Engineering the students, faculty and staff enjoy some of the best computing facilities available at OSU. The instructional environment includes over 300 HP workstations running the latest Windows software, as well as a multi-user Linux environment. There are also several research labs with computing environments customized for their particular needs. Members of the department can also utilize high performance computing resources available at the Ohio Supercomputer Center, including Oakley, an HP Xeon Cluster, and Glenn, and IBM Cluster 1350.

Student Organizations

Students are encouraged to become active in various student organizations and professional societies in computer science. Student organizations include the **Association for Computing Machinery for Women (ACM-W)**, **Game Creation Club**, **Collegiate Web Developers Group**, **Mobile App Development Club**, **OSU Open Source Club**, and **Upsilon Pi Epsilon** (an honorary society for computer science students). Professional societies include the **Association for Computing Machinery (ACM)**, and the **Computer Society of the Institute for Electrical and Electronic Engineers (IEEE)**. Other groups, clubs, and societies that may be of interest may be found at <https://engineering.osu.edu/studentorgs>, as well as http://ohiounion.osu.edu/get_involved/student_organizations

Additional Activities

NEWPATH is a program intended for CSE and CIS students, at all levels, who are interested in IT entrepreneurship. The program brings together students, faculty, and outside IT entrepreneurs to explore issues related to IT entrepreneurship and help students develop their entrepreneurial skills. See the following link for more details:

<https://cse.osu.edu/current-students/newpath>

Scholarship Opportunities

Each spring, the Computer Science and Engineering Department offers several one-year scholarships with the intent of recognizing and encouraging excellence in the study of computing. The awards are typically in the amount of \$1500. See the following link for more details:

<https://cse.osu.edu/current-students/undergraduate/scholarships>

Diversity Mission

The Diversity Program in CSE seeks to develop and educate a diverse and highly-regarded community of computer scientists through a supportive infrastructure for women and underrepresented minorities. Students are encouraged to become active in the many professional and special interest societies offered. Tutoring, mentoring, CSE newsgroup server, job postings, co-ops/internships are just a few of the many benefits of being active in the community.

https://cse.osu.edu/department/cse_connects

Honors & Scholars Programs

University Honors & Scholars is a university-wide array of opportunities available to high-ability undergraduates. While there is some variation from College to College, these opportunities are designed to encourage and facilitate the pursuit of undergraduate academic excellence. At both the university and the college levels, exceptional students are encouraged to undertake honors programs, special classroom and research opportunities, and co-curricular activities which may result in an enhanced and distinctive undergraduate program.

Prospective students entering The Ohio State University must formally apply for honors affiliation through the University Honors & Scholars Center (220 West 12th Avenue, Columbus, OH 43210). Upon application approval, students are eligible to access the many opportunities available to honor-affiliated undergraduates, including priority scheduling privileges, honors residence halls, and honors classes. These classes are limited to 25 students and are taught by faculty. A currently enrolled undergraduate in a degree-granting college at the university must obtain formal honors affiliation through that college. For additional information, please contact the University Honors Center:

<http://honors-scholars.osu.edu/>

In Engineering, the designation “engineering honors student” is awarded on a semester basis to college-designated undergraduates who have earned a cumulative GPA of at least 3.4. In addition, incoming direct-admit freshmen with an ACT composite score of at least 30 or a 1340 SAT combined score and in the top 10% of their high school graduating class may enroll in honors courses.

Career Services

Your college Career Services office is a valuable resource to help you reach your career goals. Whether you are an undergraduate just beginning to explore your options through co-op or internship experience, or an undergraduate or graduate student planning to graduate within a year, you will want to take full advantage of these services. For CSE students, opportunities abound to meet with employers here on campus, both through career fairs and through on-campus interviewing coordinated by each college. In addition, each career services office provides: career information (including salary statistics); information about potential employers; a variety of workshops and individual appointments to help with job search issues (interviewing skills, resume writing, job decisions); full-time career, co-op, internship, summer, and part-time job postings; resume referral services; and career fairs. Each career services office provides convenient web-based services to help registered students link with potential employers. Ohio State's reputation for academic excellence means that many nationally known employers travel to campus to recruit our students.

For Engineering students, to take full advantage of all of the services and opportunities provided, you should plan to register with ECS at least two semesters prior to graduation—ideally, so that you are registered to interview during fall semester when most interviewing takes place. (Please note that if you have previously registered as a co-op or intern candidate, you will need to update your registration to participate in full-time employment services).

Students should register with the Career Services office serving their college of enrollment. To find out about the full range of services offered by each office and to learn about specific registration procedures, simply call, stop by, or visit the web site of the office that applies to you.

Cooperative Education and Internships

Students are strongly encouraged to participate in their college co-op or internship program, since employers of college graduates generally favor those with career-related experience. In fact, employers typically give first priority to hiring their own co-ops and interns for full time positions, since both students and employers have had the opportunity for a “test drive.”

Undergraduate students ready to seek practical, well-paid career-related work experience should start by visiting their College Career Services office. Program details and requirements for participation vary from college to college; however, students are encouraged to start pursuing practical experience as early as their sophomore year.

Cooperative Education (co-op) students alternate semesters of full-time work and full-time classes, usually maintaining a continuing commitment to the same employer throughout their undergraduate degrees. Internship students may work full-time for a single semester or two back-to-back semesters before returning to full-time studies. Part-time employment in computer-related positions is also available with many central Ohio employers, including Ohio State. The ASC career services office sponsors an Internship/Co-op Job Fair each spring and employer recruiting activities take place throughout the year, with peak activity in fall semester. ECS hosts the Expo in fall and the SWE Fair in spring semester.

Locating Your Career Services Office

Arts & Sciences Career Services (CIS)

100 Denney Hall
164 Annie & John Glenn Avenue
614-292-6961
ascareer@osu.edu
<http://ascareerservices.osu.edu>

Engineering Career Services (CSE)

199 Hitchcock Hall
2050 Neil Ave.
614-292-6651
eng-ecs@osu.edu
<https://ecs.osu.edu>