# Foundations of Computer Science

## Objective
A solid foundational introduction to Computer Science course is essential in undergraduate programs to ensure that all students are on the same footing for subsequent courses. This course follows the core body of knowledge specified by the ACM which provides students with a broad overview of topics they might encounter within the Computer Science curriculum.

The course is taught at an introductory level and includes topics such as: history of computers, computer architecture, operating systems, world-wide web and HTML, programming with Python, database, software engineering, networking, and more. Through a series of lectures, discussions, textbook exercises, quizzes, tests, and labs students will learn first hand about the field of computer science as both a degree and a career.

## Learning Outcomes
At the end of this course students should be able to:
- Summarize core computer science concepts at a high level
- Create a basic HTML page
- Use SQL to query a simple database
- Solve problems using a programming language (Python)

## Class
Class will consist of lectures, discussions, assignments, quizzes and exams. Questions and comments are encouraged. It is expected that students will read the material related to each week’s coursework. There will be several in-class assignments and projects throughout the semester which will be worth 1 point each in the assignments category.

## Assignments / Discussions / Projects
There will be weekly assignments for the class. Assignments will consist of short answer, discussion topics, and projects. The specifics of each assignment will be posted weekly on Monday. The due date for each assignment will be the following week on Monday at 8:00am (unless otherwise specified.) Late assignments will be accepted for projects with a 10% penalty per day for up to 5 days to provide for unforeseen circumstances. Late assignments for discussion posts will not be accepted. Assignments count for 40% of the final grade.

## Quizzes
There will be weekly quizzes for the class, worth 10 points each. A quiz will be posted on Friday each week (with exception of the two weeks where we have exams.) Quizzes are due before the second day of class starts each week. Your lowest two quiz scores will be dropped to provide for unforeseen circumstances. Quizzes count for 20% of the final grade.

## Exams
There will be three exams for the class. Exams count for 40% of the final grade (the Midterm Exams being worth 10% each, and the Final Exam being worth 20%) The exams will be available administered through the testing center. The midterm exams will open on Monday and will close on Saturday. The final exam will open on Tuesday and close on Thursday.

## Accommodations for disabilities
Any student requiring accommodations or services due to a disability must contact Services for Students with Disabilities (SSD) in room 181 of the Student Service Center.

## Grading
<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Quizzes</td>
<td>20%</td>
</tr>
<tr>
<td>Assignments</td>
<td>40%</td>
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<tr>
<td>Exams</td>
<td>40%</td>
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</tbody>
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The final grade will be given based on points accumulated through quizzes, assignments and exams. Standard grading will apply:

<table>
<thead>
<tr>
<th>94 – 100</th>
<th>A</th>
<th>74 – 76</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>90 – 93</td>
<td>A-</td>
<td>70 – 73</td>
<td>C-</td>
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<tr>
<td>87 – 89</td>
<td>B+</td>
<td>67 – 69</td>
<td>D+</td>
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<tr>
<td>84 – 87</td>
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<td>64 – 67</td>
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<tr>
<td>80 – 83</td>
<td>B-</td>
<td>60 – 63</td>
<td>D-</td>
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<tr>
<td>77 – 79</td>
<td>C+</td>
<td>0 – 59</td>
<td>E</td>
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Allocated Time
You should anticipate spending two to three hours of study per week for each credit hour of a university course. Computer and programming classes typically require time in the upper range.

Policies
Exams can only be taken on the days given unless arrangements are made to take them ahead of time.

Cheating
Students are expected to maintain academic ethics and integrity in regards to performing their own work. The WSU Student Code states clarifies cheating.

1. Cheating, which includes but is not limited to:
   a. Copying from another student's test paper;
   b. Using materials during a test not authorized by the person giving the test;
   c. Collaborating with any other person during a test without authority;
   d. Knowingly obtaining, using, buying, selling, transporting, or soliciting in whole or in part the contents of any test, without authorization of the appropriate official;
   e. Bribing any other person to obtain any test;
   f. Soliciting or receiving unauthorized information about any test;
   g. Substituting for another student or permitting any other person to substitute for oneself to take a test.

2. Plagiarism, which is the unacknowledged (uncited) use of any other person or group's ideas or work. This includes purchased or borrowed papers;

3. Collusion, which is the unauthorized collaboration with another person in preparing work offered for credit;

4. Falsification, which is the intentional and unauthorized altering or inventing of any information or citation in an academic exercise, activity, or record-keeping process;

5. Giving, selling or receiving unauthorized course or test information;

6. Using any unauthorized resource or aid in the preparation or completion of any course work, exercise or activity;

7. Infringing on the copyright law of the United States which prohibits the making of reproductions of copyrighted material except under certain specified conditions;

CS Department policy dictates that any verifiable evidence of student academic cheating, as defined and determined by the instructor, will result in: 1) an automatic failing grade for the class and 2) a report to the Dean of Students that will include the student's name and a description of the student's dishonest conduct.
<table>
<thead>
<tr>
<th>Week of</th>
<th>Topic</th>
<th>Coursework</th>
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</thead>
</table>
| Jan 12  | Ch. 1: The History of Computing  
          Ch. 2: Computing Security and Ethics | Quiz #1 |
| Jan 19  | MLK Day (No Monday Classes)  
          Ch. 3: Computer Architecture | Assignment #1  
          Quiz #2 |
| Jan 26  | Ch. 4: Networks | Assignment #2  
          Quiz #3 |
| Feb 2   | Ch. 5: Internet | HTML Project  
          Quiz #4 |
| Feb 9   | Review  
          Ch. 7: Numbering Systems and Data Representations | Midterm Exam 1 |
| Feb 16  | President's Day (No Monday Classes)  
          Ch. 7: Numbering Systems and Data Representations  
          Ch. 10: File Structures | Assignment #3  
          Quiz #5 |
| Feb 23  | Ch. 8: Data Structures | Assignment #4  
          Quiz #6 |
| Mar 2   | Ch. 9: Operating Systems | Assignment #5  
          Quiz #7 |
| Mar 9   | Spring Break | |
| Mar 16  | Ch. 6: Database Fundamentals | Database Project  
          Quiz #8 |
| Mar 23  | Review  
          Ch. 11: The Human-Computer Interface | Midterm Exam 2 |
| Mar 30  | Ch. 12: Problem Solving and Debugging  
          Ch. 13: Software Engineering | Assignment #6  
          Quiz #9 |
| Apr 6   | Ch. 13: Software Engineering  
          Ch. 14: Programming I | Assignment #7  
          Quiz #10 |
| Apr 13  | Ch. 15: Programming II | Programming Project #1  
          Quiz #11 |
| Apr 20  | Ch. 15: Programming II  
          Review | Programming Project #2  
          Quiz #12 |
| Apr 27  | Final Exam – Comprehensive (Chapters 1-15)  
          (Apr 28 – Apr 30) | Final Exam |