Kent State University  
CS 10051 Computer Science Principles  
- Understanding the Big ideas in Computer Science -  

Fall 2019 Syllabus

Date-Time/Location: Tue. & Thur. 9:15am - 10:30am - Room 108 SMH

Weekly Lab Meetings are all held in Room 139 MSB

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<tr>
<th>Section</th>
<th>CRN</th>
<th>Day</th>
<th>Time</th>
<th>Instructor</th>
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Instructor: Dr. L. Gwenn Volkert
Office: 216 Math and Computer Science Building (MSB)
Phone: 330–672–9037
Office Hours: Tue., Thur. 11:15am – 12:15pm  
2:00 pm – 3:30pm
and by appointment

This course may be used to satisfy a Kent Core requirement. The Kent Core as a whole is intended to broaden intellectual perspectives, foster ethical and humanitarian values, and prepare students for responsible citizenship and productive careers.

DESCRIPTION

This 4-credit course is designed to demystify computers and facilitate an understanding of how computing technologies are developed and how they are used in our world. The course covers general concepts underlying the use of computers and how computing technologies drive our information-dependent society. The course includes a weekly small group (max 20) student lab that provides hands-on creative experiences with the concepts presented in the lectures. In the labs you will be creating a variety of computing artifacts, including programs, data analysis graphs and reports, and reflections on interactive experiences. These artifacts will be part of your personal portfolios of progress during this course. This course is designed for students with no previous background in computing.
Lectures and Labs are developed and presented by instructors committed to helping you learn and understand the materials. Practical examples, illustrations, and hands on learning activities will show you how computer science concepts and technologies allow for all of the amazing increases in productivity, communication, and just plain fun that we enjoy in the 21st century. We believe that having a sound understanding of the basis of computing technologies is part of a sound foundation for all members of our modern society. This course may be used to satisfy a Kent Core requirement. The Kent Core as a whole is intended to broaden intellectual perspectives, foster ethical and humanitarian values, and prepare students for responsible citizenship and productive careers.

We will use a combination of lectures, in class work, hands-on labs, and out-of-class assignments to provide an effective learning environment for all students. Students will develop an understanding of what's going on inside a computer when you flip on the switch, how computers communicate over the Internet, how digital data is created, stored and transformed into information and knowledge, why privacy and security are so important, and how computers are increasingly a part of so many aspects of our lives. Our aim is to demystify computing devices and the Internet, along with their jargon, so that students understand not only what they can do with each but also how it all works and why. Students leave this course with the vocabulary necessary for further exploration of computers and the Internet.

Topics include the programming, the Internet, Web technologies, hardware, software, multimedia, privacy/security and big data – details below. Although this course is not required for students majoring in Computer Science, it is very useful for any student who is considering majoring in Computer Science and has not had previous courses in computer science and/or programming. Students who successfully complete CS10051 - Introduction to Computer Science can easily move on to CS1 - Programming and Problem Solving CS13001.

**REQUIRED MATERIALS**

**Textbook**

*Blown to Bits* - available for free download at [http://www.bitsbook.com](http://www.bitsbook.com)

Author: Harry Lewis, Ken Ledeen and Hal Abelson
Selected Readings and videos provided by the Instructor – these will be made available on the course website

Programming Tutorials and Guides – provided on the course website

Attendance and Clicker Requirement – Attendance is required.

![Turning Tech. clicker](image1)
![ResponseWare App](image2)
![Top Hat App](image3)

Since this course has a rather large you will need to obtain a clicker and license to use during lectures. The clickers will enable us to take quick surveys and quizzes on concepts and issues we will be investigating through-out the course. Information on how to purchase and register a clicker/license or clicker app/license for your smart device is available on the course website.

Each student needs to register a QT ResponseCard or equivalent Turning Technologies device with an active license OR a smart phone with a ResponseWare License or a smart phone (or other web enabled device) with a Top Hat account before the 3rd lecture. Detailed instructions are available on the course website in BlackBoard Learn.

If you have to change your clicker ID or ResponseWare license during the semester you will need to re-register the new ID using the same process as you did originally. If you experience any difficulties registering or operating your device, please contact me as soon as possible.

**COURSE POLICIES**

**Prerequisite:** None

**Course Website:** http://learn.kent.edu

All information pertaining to this course will be available on the course website hosted in the Blackboard Learn environment. Updates to this syllabus (if any occur) will be announced in class and posted to the announcement section of the course website.
Course Communication:  http://piazza.com/kent/fall2019/cs10051

All questions regarding any aspect of the course that is not addressed during regular course meetings or in office hours MUST be asked using the course PIAZZA website. Very often multiple students have the same or very similar questions, the PIAZZA system allows questions to be reviewed by anyone register for the course. There is an option for private discussions directly to the instructor as well. This system is the only electronic communication method that will be used for this course.

Attendance and Exam Policies

- Attendance Policy-- Students are required to attend each and every lecture and lab. Attendance and active participation during lectures and labs will help you learn the material and succeed in class. Missed lectures or labs will negatively impact your ability to make sense of the materials covered in following lectures and labs later. Only documented emergencies will be excused.

- Exam Policies-- Two midterms and a final exam will be given that examines the student's knowledge of the course material. The final exam is comprehensive. No study guide(s) will be given before exams.

- Freshmen will also receive a midterm grade (including all work up to and including the first midterm exam) posted on FlashLine. Students can access their midterm and Final course grades using the procedures provided by the registrar's office.

- Make-up and Late Policy-- There is no make-up date for exams or homework. Missed work will result in a grade of ZERO for the applicable assignment or exam. Exceptional circumstances should be discussed with your instructor in advance. Make-up exams for this class will only be given in the case of very serious documented and valid circumstances.

Lab Sessions

Each student is required to attend a two hour Lab Section each week which will be run by one of the course Lab Instructors. All of the Lab Instructors will be presenting the same material, specifically developed to help you explore and extend the concepts presented in lecture.

Attendance at both the lectures and lab meetings is required. If you do miss a lab, be sure to work through the lab materials using the lab handouts. Be sure to contact your Lab Instructor if you need any additional assistance understanding the material. All lab materials and other course documents will be maintained on the course website.

Homework

Many of the course assignments will involve problem solving that can be completed using either a Mac OS or Windows-based personal computer. There will also be on-line quiz-like homework assignments to help you prepare for exams. Occasionally the homework exercises may be of the short "paper-and-pencil" variety or require typed reflections on topics presented in class or lab. All homework must be turned in through an "electronic submission" process, which we will describe in a future handout and also
demonstrated in lab. Paper-and-pencil answers must be “scanned” into an electronic file for submission – easily done by taking a picture with your phone.

We will deduct 10% if an assignment is up to 24 hours late, and no homework will be accepted after 24 hours. Due dates will be announced in class and posted on the course website. If your electronic submission is more than 10 minutes late, then it will be considered a full day late, and you will lose 10% of your grade. Your homework grades will be available through the course website.

**Grading**

- Midterms 20% (10% each – there will be two midterm exams)
- Final Exam 10%
- Homework 15%,
- Two Projects 30% (15% each)
  - Programming Project
  - Data Analysis Project
- Lab Work 20%
- Attendance– Clicker Quizzes/Surveys 5%

The final course grade will be determined by the following University standard percentage scale:

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<tr>
<th>Grade</th>
<th>Percentage</th>
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<tr>
<td>A</td>
<td>93% – 100%</td>
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<tr>
<td>A−</td>
<td>90% – 92.99%</td>
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<tr>
<td>B+</td>
<td>87% – 89.99%</td>
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<tr>
<td>B</td>
<td>83% – 86.99%</td>
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<tr>
<td>B−</td>
<td>80% – 82.99%</td>
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<tr>
<td>C</td>
<td>77% – 79.99%</td>
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<tr>
<td>C−</td>
<td>73% – 76.99%</td>
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<tr>
<td>D+</td>
<td>67% – 69.99%</td>
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<tr>
<td>D</td>
<td>60% – 66.99%</td>
</tr>
<tr>
<td>F</td>
<td>0% – 58.99%</td>
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**Final Exam**

The final exam will be held on Thursday, December 12, 2019 from 8:30 – 10:00 am

**How to succeed in this course**

Be sure you attend all Lectures and Labs – in this course higher attendance has always correlated with higher grades. Keep up with the reading assignments. Practice what you learn in lab at home by referring to the resources provided on the course website. Just as you cannot expect to learn how to sew, cook, or drive a car by reading about it or by watching other people do it, the same holds true for working on a computer. You will be learning by doing!!

Be sure to finish your work on time – for this course you simply cannot "cram" in your work at the last minute. If you fall behind on the assignments, it becomes very hard to catch up, as this course builds upon material presented earlier in the semester.

All assignments will be able to be completed on a student’s personal computer by downloaded the required software from the course website. Students will also have access the computing facilities in the Mathematics and Computer Science Building.
Class Room Etiquette

Please remember that personal conversation during lecture time is distracting to your fellow students. Leave the class if you wish to converse (on the phone). Discussions with your instructor regarding individual matters may be conducted after the class, but NOT before or DURING the class time please. Early departure and late arrival – Please do so discreetly. Please turn off all wireless phones, beepers, pagers, radios, the sound on all laptops and PDAs, and any other noise making devises. Laptops are acceptable for taking notes; however, please ensure that your screen does not distract/block other students.

UNIVERSITY POLICIES

Academic Integrity

Student–teacher relationships are built on trust. Students must trust that teachers have made appropriate decisions about the structure and content of the courses they teach, and teachers must trust that the assignments, which students turn in, are their own. Acts that violate this trust undermine the educational process. In this course, the penalty for any act of academic dishonesty is a final course grade of F.

Registration Requirement

University policy requires all students to be officially registered in each class they are attending. Students who are not officially registered for a course by published deadlines should not be attending classes and will not receive credit or a grade for the course. Each student must confirm enrollment by checking his/her class schedule (using Student Tools in FlashLine) prior to the deadline indicated in the university calendar. Registration errors must be corrected prior to the deadline.

The last day to withdraw with a grade of W is October 30, 2019.

Cheating and Plagiarism Policy

University policy 3342–3–01.8 deals with he problem of academic dishonesty, cheating, and plagiarism. None of these will be tolerated in this class. The sanctions provided in this policy will be used to deal with violations. If you have any questions, please read the policy at http://www.kent.edu/policyreg/policydetails.cfm?customel_datapageid_1976529=2037779

Student Accessibility Services

University policy 3342–3–01.3 requires that students with disabilities be provided reasonable accommodations to ensure their equal access to course content. If you have a documented disability and require accommodations, please contact the instructor at the beginning of the semester to make arrangements for necessary classroom adjustments. Please note, you must first verify your eligibility for these through the
Student Accessibility Services (contact 330–572–3391 or visit http://www.kent.edu/sas for more information or registration procedures.

**Student Survey of Instruction (SSI)**

The Student Survey of Instruction (SSI) is now administered online. Time to do so will be provided on the last official lectured date of the semester.