

Oklahoma State University

CS 2433 : C / C ++ Programming

Fall 2019

Monday, Wednesday 4:00 pm - 5:15 pm - Math Science 108

Professor : Dr. A. T. Burrell

Contact Information :

Office : Math Science 208
Phone : 405 - 744 - 5670
Email : tburrell@okstate.edu
Office Hours : Wednesday 11:55 am-12:25pm, 1:25 pm - 3:55 pm,
Office Location : Math Science Building 208
Teaching Assistant : TBA

Communication :

The best way to reach me is to talk to me during office hours, immediately after class, or via telephone or email. Within the first week of class, please send me an email with "CS 2433 Fall 2019 Student" in the subject line to tburrell@okstate.edu. Important information may be sent via email. All Communications are in English.

Prerequisites :

CS 1113 and MATH 1513.

Required Text :

C++ From Control Structures Through Objects, Tony Gaddis, Ninth Edition, Pearson., 2018. ISBN-10 : 0-13-449837-2 . ISBN-13 : 978-0-13-449837-9.

Reference : The C Programming Language, Brian W. Kernighan & Dennis M. Ritchie, 1978, ISBN 0-13-110163-3, Prentice Hall.

Course Objective(s) :

To be able to identify, construct, compile and test C/C++ programs utilizing language types, operators, expressions, control flow, functions, structures, pointers, arrays and basic object oriented programming constructs. Be able to debug all code created and compiled. To be able to use of operating system commands and utilities along with some UNIX interface where necessary. To be able to utilize computer science approach in using a block-structured high-level computer language, including subprograms, arrays, recursion, records, and abstract data types; to be able to problem solve, debug and document created code. To understand and create code that test elementary methods of sorting and searching.

Grading Policy :

| | | |
|---------------------------------|------|----------------------------|
| Two In-Class Examinations | 30 % | (15% For Each Examination) |
| Comprehensive Final Examination | 32 % | |
| Basic Homework | 8 % | (Separately Weighted) |
| Pop Quizzes | 10 % | (Equally Weighted) |
| In Class Participation | 20 % | (Equally Weighted) |

The Final Grade Distribution is Based on the Following Scale:

| | |
|-----|-------------|
| A = | 90 % -100 % |
| B = | 80 % - 89% |
| C = | 70 % – 79 % |
| D = | 60 % – 69 % |
| F = | Below 60 % |

Policy on Attendance & Participation:

Students who attend class typically outperform those who do not attend. This is why attendance is strongly encouraged and rewarded as part of your grade. Since you are responsible for all material covered in class, in real time, whether you attend or not, it is in your best interest to come to class. Please know that there is no good way to make up a missed class, and there is no flexibility in the schedule that allows for reviewing material during class time for those who may have missed previous classes. You are responsible for obtaining the material presented in classes you miss.

I will often take unannounced role as one portion of your participation grade as this allows me to become familiar with all members of the class. Participation points may also be earned through class discussions, small group exercises, and projects. I will also note students' participation throughout the semester. Thank You for participation in ways that are both positive and constructive to everyone's learning.

Examination Policy :

All exams will be closed book and closed notes unless otherwise stated. It is important that you learn to complete your work correctly, so partial credit on exams is rarely given. All examinations take place in class during scheduled class times. See course calendar for exact dates.

In this course there are no make-up examinations. If a student must miss a midterm examination for a university – approved activity or for a valid personal emergency, approved by the professor of record for this course, then a written, dated and signed explanation must be provided to the professor. In some cases where appropriate, note that approval for missing a midterm must be obtained prior to the examination period. In such cases, the weight of the missed midterm will be distributed (thus increasing weights thereof) among taken/to-be-taken Midterm (18%), Quizzes (15%), In Class Participation (25%), Homework (9%) and Final Examination (33%) categories. An unexcused absence will result in a score of zero for the examination in question. If a student misses both midterms, each examination will receive a score of zero regardless of the reasons(s) provided.

In order to maintain the integrity of future exams, the Final Examination will not be returned but may be viewed and/or discussed for up to one year after the class ends. Please contact me via the manner listed above. All students must take the finals examination as scheduled unless an incomplete contract has been previously approved according to university regulations. The Final Examination Is Scheduled for Monday December 9, 2019 at 6 pm - 7:50 pm in MSCS 108.

Homework Policy :

Basic Homework will be assigned weekly in conjunction with the material covered. It is due at the start of class as specified when it is assigned and in the course calendar. No basic homework is accepted after the specified due date and time.

Basic Homework may be hand written or typed. However, understand that it must be legible to the degree that I can read it. Assignments that cannot be deciphered will likely result in a lower grade – regardless of what you intended in this work. In addition, assignments must be clearly identified with appropriate information

such as: student name, last four digits of the student number, course number, homework number, and *stapled* together. Students are encouraged to discuss homework's and possible solutions. However, copying and identical (or nearly so) work is considered an academic violation.

All graded works will available for pickup in class once grading is complete. In the event that you miss class on the day graded work is returned, then you must make arrangements to pickup such work during office hours.

Accessibility Policy :

Student Disabilities Service (SDS) serves as the initial point of contact fro students requiring special accommodations. If you believe that you have a disability requiring accessibility support, please visit the SDS office in 315 Student Union, call 405-744-7116, or email accessibility@okstate.edu for assistance.

Electronic Device Policy :

Electronic devices (including, but not limited to, cell phones, tablets, phablets, laptops, desk tops, or any other computing device) may only be utilized in the classroom as appropriate with class lectures and content and with the permission of the instructor. Activities that are not relevant to the course, such as checking or sending *emails, texting, playing games, watching video content and surfing the web*, are considered disruptive activities when class is in session.

No electronic recordings of any kind are allowed during class.

Academic Integrity :

Oklahoma State University is committed to upholding integrity and honesty as core values. As discussed in the previous homework policy section, students are encouraged to work together on homework's. However, copying another students work is considered a violation of academic integrity. The authors of such work which is identified as identical (or nearly identical) are considered to have participated in academic misconduct. Furthermore, obtaining solutions from the internet is strictly forbidden as it is considered cheating and copying.

In the event of academic misconduct, the Academic Integrity Policy will be followed. For more information please see the syllabus attachment or <http://academicintegrity.okstate.edu>.

General Attachments:

- Helpful Hints for Success in This Course
- Course Calendar
- OSU Syllabus Attachment
- *Academic Integrity Documents*

The Syllabus is Subject To Change Based On The Needs of The Class. Notice of Such Changes Will Occur During Announcements In Class.

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😊😊😊 Helpful Hints for Success 😊😊😊

My Concern IS For You To Do Well In This Class. To That End, Below Are Several Pieces of Advice That Will Make It More Likely That You Will Be Successful.

1. *Attend Class and Stay On Top Of The Material.* There is No Substitute For *ASTTENDING* lectures and Attempting to Make Sense of The Course Content Just Prior To An Examination rarely Works Well.
2. It May Be Helpful To Work With Classmates on Various Subject Matter.
3. Speak To Me Directly Regarding ANY Difficulties That You Might Have Related To This Class. It Is Always Better To Visit With Me At The First Sign Of Difficulty Rather Than Waiting Until You Feel Overwhelmed. In Other Words, When You Have An Issue, Come See ME As Soon As Possible.
4. Be Honest, Kind, Courteous and Respectful. Mastering Concepts in Computer Education is Often a Painful Process Which Can Lead To Feelings of Frustration on the Part Of The Learners. Nonetheless, Handling Frustrations in a Respectful Manner Will Make It More Likely That You Will Experience a Positive Outcome.
5. Make Prior Arrangements If You Believe You Will Miss a Quiz or Examination. It is Always To Your Benefit to Speak With Me Before The Examination Period TO Clarify Your Situation.
6. When You Receive Graded Work. Speak With Me Directly To Clarify Any Questions or Concerns That You Might Have Regarding The Score, Grading, Conceptions, Interpretations, etc.
7. If You Have Difficulties Communicating Your Knowledge of The Class Material and/or Recognition & Performance, Be Sure To Convey This To Me. My Goal Is To Recognize Your True Academic Strengths Regarding The Mastery of The Course Content and To Further Your Abilities In The Field. The Ability o Communicate Knowledge In The Subject Matter is One Area in Which I Can Help You..
8. Read The Text Material Carefully with The Utmost Of Attention. On Occasion I May Ask That Your Read Specific Material. It is ALWAYS In Your Best Interest To Complete Such Readings In A Timely Manner.
9. If You Have "Grade Constraints" Please Speak to Me Directly Regarding Your Situation BEFORE Examinations or Quizzes Occur ... So That I May Help You. This Can Be Best Done via A Hard Copy Note and A Simple Short Conversation.

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😊😊😊 CLASS CALENDAR 😊😊😊

Key Concepts of Noted Chapters Will Be Covered

| Week of | Readings | Topic(s) | Assignments Due |
|----------|-----------------|---|---|
| Aug. 18 | Syllabus | Course Preliminaries & Syllabus | Email to Dr. Burrell |
| Aug. 26 | Chapter 1 | Introduction to Computers & Programming | |
| Sept. 2 | Chapter 2 | Introduction to C++ Materials | |
| Sept. 9 | Chapter 3 | Expressions & Interactivity | Quiz |
| Sept. 16 | Chapters 3 & 4 | Making Decisions with C++ | |
| Sept. 23 | Chapter 4 & 5 | Loops & Basic Files | Friday, 9/27/2019 Midterm Exam One |
| Sept. 30 | Chapter 6 | Functions | Quiz |
| Oct. 7 | Chapter 7 & 8 | Arrays, Vectors, Searching and Sorting | |
| Oct. 14 | Chapter 8 & 9 | Searching and Sorting , Pointers | |
| Oct. 21 | Chapter 10 & 11 | String and Structured Data | Quiz |
| Oct. 28 | Chapter 13 & 14 | Classes | Mid Term Two Friday, 11/01/2019 |
| Nov. 4 | Chapter 16 & 17 | The STL and Exceptions | |
| Nov. 11 | Chapter 18 & 19 | Linked List, Stacks and Queues | Quiz |
| Nov. 18 | Chapter 20 | Recursion | |
| Nov. 25 | Chapter 21 | Binary Trees | |
| Dec. 2 | | | Final Examination , Friday December 13, 2019 10a- 11:50am. |

