Introduction to Interactive Computer Graphics

ITCS 3120

Revised 10/8/2018 v2

This syllabus contains the policies and expectations I have established for this course. Please read the entire syllabus carefully before continuing in this course. These policies and expectations are intended to create a productive learning atmosphere for all students. Unless you are prepared to abide by these policies and expectations, you risk losing the opportunity to participate further in the course.

The standards and requirements set forth in this syllabus may be modified at any time by the course instructor. Notice of such changes will be by announcement in class or by changes to this syllabus posted on the course website on Canvas.

- **Course Description**
  
  Introduction to graphics hardware; raster algorithms; event-based programming; shader programming; anti-aliasing methods; matrix algebra for change of coordinates and 2D/3D geometric transformations; 2D/3D viewing transformation and clipping; 2D curves and 2D splines, and the basics of lighting and texture mapping.

- **Location**

  Woodward 135
  12:20-1:10 pm, Monday, Wednesday, Friday

- **Instructor**

  Dr. Zachary Wartell
  Woodward 435B
  687-8442
  zwartell@uncc.edu

  https://webpages.uncc.edu/zwartell/

  Office Hours: Monday 2-3pm, Wednesday 2-3pm, Thursday 2-3pm.

- **Teaching Assistant**

  To Be Announce

  Woodward 437
  xxx@uncc.edu

  Office Hours: xxx pm – xx pm, Monday, Wednesday

- **Text(s)**

    - [Kindle Version] [Vital Source]
  
    - [Kindle Version]

  Note, the Kindle Version can be viewed on any computer using a free downloadable Kindle viewer.

- **Grading**

  1. Individual assignment and exam grading will be based on an absolute scale.

  2. The final semester grade may optionally be curved at the instructor's discretion depending on the classes overall semester grade distribution.

  3. Breakdown (tentative)

    - Programming projects: 50%
    - Exams: 50%
      - Midterm Exam 16.6%, ¾-Term Exam 16.6%, Final Exam 16.6%
- There will be roughly 4 programming projects and several programming tutorials. Larger projects may be split to multiple individual weekly and bi-weekly deliverables.

- Letter Grade Scale:
  - 90-100% of total grade – A
  - 80-90% of total grade - B or better.
  - 70-80% of total grade - C or better.
  - 60-70% of total grade - D or better.

- Passing grade on programming projects is required to pass the course.

- Incompletes will be given, only under exceptional circumstances and at the discretion of instructor.

- **Assignment & Project Submissions**
  Canvas and [http://cci-git.uncc.edu/](http://cci-git.uncc.edu/) will be used for assignment and project submissions.

- **Important Dates**
  Due dates and exam schedule are maintained on Canvas.

- **Course Topics**
  Course topics are listed on Canvas.

### I. Programming Assignment Grading

1) Programs that don’t compile will be given 0 credit.

2) Late assignments will lose 15% of their grade for each day they are late. Assignments turned in later than 3 days late will be given a 0. (Saturday counts as one day. Sunday counts as another day).

3) Partial Credit: If there are parts of your program that compile but you cannot get to work correctly you may hand in the non-working (but compiling) code in addition to your working code. To get even minimal partial credit:
   
   a. The non-working code must be compile and must compile using any compilation scripts you were instructed to use.
   
   b. The non-working code must be placed in a separate function or method.
   
   c. Your program should include a call to that non-working function at the appropriate places in the rest of your code, but the call should be commented out.

   (The idea here is that you must prove that you know where the non-working function should be called, how it fits into the over all program structure and that you are not just handing in some random code that you copied from somewhere else.)

   d. You must add a comment to the non-working code that explains what about it does not work, what about it does work, and what problems you had.

The amount of partial credit given for such non-working code is purely up to the discretion of the TA and professor. If your program includes an excessive amount of ‘non-working’ code, you will be given minimal credit overall for the entire assignment. What determines ‘excessive’ is purely up to the discretion of the TA and professor. Again, no credit will be given for any code that doesn’t compile.
II. Classroom Expectations

a) Students are expected to attend every class and remain in class for the duration of the session. Failure to attend class or arriving late may impact your ability to achieve course objectives which could affect your course grade. An absence, excused or unexcused, does not relieve a student of any course requirement. Regular class attendance is a student's obligation, as is a responsibility for all the work of class meetings, including tests and written tasks. Any unexcused absence or excessive tardiness may result in a loss of participation points.

b) The authority to excuse a student's class absence(s) and to grant a student an academic accommodation (turn in a late assignment(s), provide extra time on an assignment, reschedule an exam(s) etc.) sits with the individual instructor. Students are encouraged to work directly with me regarding their absence(s). The Dean of Students Office can assist faculty members in the verification a student's class absence(s) for documented situation related to medical, psychological, personal crisis, or military absences.

c) If I am late in arriving to class, you must wait a full 20 minutes after the start of class before you may leave without being counted absent, or you must follow any written instructions I may give you about my anticipated tardiness.

d) I will conduct this class in an atmosphere of mutual respect. I encourage your active participation in class discussions. Each of us may have strongly differing opinions on the various topics of class discussions. The conflict of ideas is encouraged and welcome. The orderly questioning of the ideas of others, including mine, is similarly welcome. However, I will exercise my responsibility to manage the discussions so that ideas and argument can proceed in an orderly fashion. You should expect that if your conduct during class discussions seriously disrupts the atmosphere of mutual respect I expect in this class, you will not be permitted to participate further.

e) The use of cell phones, smart phones, or other mobile communication devices is disruptive, and is therefore prohibited during class unless otherwise explicitly communicated for course purposes (e.g., use of clicker software from your smart phone). Except in emergencies, those using such devices must leave the classroom for the remainder of the class period. If unique circumstances are anticipated that necessitates the use of such devices, the course instructor should be notified prior to class to discuss proper etiquette given the unique circumstances.

f) Students are permitted to use computers during class for note-taking and other class-related work only. Those using computers during class for work not related to that class must leave the classroom for the remainder of the class period.

g) This 3 credit course requires 3 hours of classroom or direct faculty instruction and on average roughly 6 hours of out-of-class student work each week for approximately 15 weeks. Out-of-class work may include but is not limited to: REQUIRED READING, PRACTICA, WRITTEN ASSIGNMENTS, AND STUDYING FOR QUIZZES AND EXAMS.

III. Tardiness or Absenteeism

Class Absence(s): The authority to excuse a student’s class absence(s) and to grant a student an academic accommodation (turn in a late assignment(s), provide extra time on an assignment, reschedule an exam(s) etc.) sits with the individual instructor. Students are encouraged to work directly with their instructors regarding their absence(s). Note: The Dean of Students Office can assist faculty members in the verification a student’s class absence(s) for documented situation related to medical, psychological, personal crisis, or military absences.

IV. Academic Integrity, Plagiarism

All students are required to read and abide by The Code of Student Academic Integrity. Violations of the Code of Student Academic Integrity, including plagiarism, will result in disciplinary action as provided in the Code. Definitions and examples of plagiarism are set forth in the Code. The Code is available from the Dean of Students Office or online at: http://legal.uncc.edu/policies/up-407. The code will be strictly enforced and is binding on the students. Grade and academic evaluations in this course include a judgment that the student’s work is free from academic dishonesty of any type; and grades in this course therefore should be and will be adversely affected by academic dishonesty. Students who violate the code can be expelled from UNC Charlotte. The normal penalty for a first offense is zero credit on the work involving dishonesty and further substantial reduction of the course grade. In almost all cases the course grade is reduced to an F.

Faculty may ask students to produce identification at examinations and may require students to demonstrate that graded assignments completed outside of class are their own work.

As a condition of taking this course, all required projects and assignments may be subject to submission for textual similarity review to VeriCite (or other similar services, like MOSS or Turnitin) for the detection of plagiarism. All submitted
projects will be included as source documents in the service reference database solely for the purpose of detecting plagiarism of such projects. No student papers will be submitted to this service without a student's written consent (http://teaching.uncc.edu/sites/teaching.uncc.edu/files/media/VeriCite/VeriCite_Limited_Copyright_Permission_and FERPA Disclosure Consent Form.pdf) and permission. If a student does not provide such written consent and permission, the instructor may: (i) require a short reflection paper on research methodology; (ii) require a draft bibliography prior to submission of the final paper; or (iii) require the cover page and first cited page of each reference source to be photocopied and submitted with the final paper.

V. University Policy on Withdrawals

Students are expected to complete all courses for which they are registered at the close of the add/drop period. If you are concerned about your ability to succeed in this course, it is important to make an appointment to speak with the instructor as soon as possible. The University policy on withdrawal allows students only a limited number of opportunities available to withdraw from courses. It is important for you to understand the financial and academic consequences that may result from course withdrawal (http://provost.uncc.edu/policies/academic/withdrawals).

VI. Inclusivity

Preferred Gender Pronoun: This course affirms people of all gender expressions and gender identities. If you prefer to be called a different name than what is indicated on the class roster, please let me know. Feel free to correct me on your preferred gender pronoun. If you have any questions or concerns, please do not hesitate to contact me.

Non-Discrimination: All students and the instructor are expected to engage with each other respectfully. Unwelcome conduct directed toward another person based upon that person's actual or perceived race, actual or perceived gender, color, religion, age, national origin, ethnicity, disability, or veteran status, or for any other reason, may constitute a violation of University Policy 406, The Code of Student Responsibility. Any student suspected of engaging in such conduct will be referred to the Office of Student Conduct for possible conduct action.

VII. Disability Accommodations

Students in this course seeking accommodations to disabilities must first consult with the Office of Disability Services and follow the instructions of that office for obtaining accommodations.

VIII. Sexual Harassment

All students are required to abide by the UNC Charlotte Sexual Harassment Policy and Grievance Procedures (available online at: http://legal.uncc.edu/policies/up-502) and the policy on Responsible Use of University Computing and Electronic Communication Resources (available online at: http://legal.uncc.edu/policies/up-307). Sexual harassment, as defined in the Sexual Harassment Policy and Grievance Procedures, is prohibited, even when carried out through computers or other electronic communications systems, including course-based chat rooms or message boards.

IX. Title IX Reporting Obligations

UNC Charlotte is committed to providing an environment free of all forms of discrimination and sexual harassment, including sexual assault, domestic violence, dating violence, and stalking. If you (or someone you know) has experienced or experiences any of these incidents, know that you are not alone. UNC Charlotte has staff members trained to support you in navigating campus life, accessing health and counseling services, providing academic and housing accommodations, helping with legal protective orders, and more.

Please be aware that many UNC Charlotte employees, including all faculty members, are considered Responsible Employees who are required to relay any information or reports of sexual misconduct they receive to the Title IX Coordinator. This means that if you tell me about a situation involving sexual harassment, sexual assault, dating violence, domestic violence, or stalking, I must report the information to the Title IX Coordinator. Although I have to report the situation, you will still have options about how your case will be handled, including whether or not you wish to pursue a formal complaint. Our goal is to make sure you are aware of the range of options available to you and have access to the resources you need.

If you wish to speak to someone confidentially, you can contact any of the following on-campus resources, who are not required to report the incident to the Title IX Coordinator: (1) University Counseling Center (counselingcenter.uncc.edu, 7-0311); (2) Student Health Center (studenthealth.uncc.edu, 7-7400); or (3) Center for Wellness Promotion (wellness.uncc.edu, 7-7407). Additional information about your options is also available at titleix.uncc.edu under the “Students” tab.