

**University of Waterloo**  
**Department of Drama and Speech Communication**  
**DAC 300|ENGL 303|SPCOM 300 (7788)**  
**Special Topics Digital Design: Introduction to Game Design**  
**Winter 2016 (1161)**  
**Thursdays, 8:30am-11:20am in AL 209**

**Instructor and T.A. Information**

Instructor: Dr. Lennart Nacke, Associate Professor

Office: ML 241

Office Phone: (+1) 519-888-4567 x38251

Office Hours: Wednesdays, 3:30pm – 4:30pm

Email: [lennart.nacke@uwaterloo.ca](mailto:lennart.nacke@uwaterloo.ca)

*Please refrain from writing emails longer than 600 characters. When writing emails, expect answering delays of at least 48 hours. Emails will not be answered outside of regular business hours (Mo-Fr, 9am-5pm). I am best reached over the phone at extension 38251 or on Twitter (@acagamic). For the fastest response, come to my office hours, talk to me in class, or call me.*

T.A.	Rina Wehbe
Email	<a href="mailto:rina.wehbe@uwaterloo.ca">rina.wehbe@uwaterloo.ca</a>
Office	Games Institute (Mario Loop)
Office Hours	On request

**Course Description**

Introduction to Game Design is a course that explores the fundamentals of game design. The emphasis of this class is on creating several non-digital (not computer) games. Similar to the fundamentals classes that fine art students might take in figure drawing or color theory as part of their education to become visual artists, this class remains rooted squarely in the basics of game design. It focuses on the essentials shared by all games that are fundamental for a game designer working in any medium, from sports to board games to computer and video games. Although the focus of the course is on the creation of non-digital games, digital games will also be discussed in class.

The lectures and tutorials provide students with a broad theoretical and conceptual understanding of the field of game design and development along with practical exercises to train creating a game. As a game designer, students need to provide information to players about the content of their game, about how to play it (the things they need to do to progress in the game and the rules), and about the winning conditions. Students need to motivate people to play their games in the first place. Players need to feel empowered by the choices offered by their game and designing a game is essentially about designing meaningful and interesting choices for players. Students are expected to create several smaller non-digital games throughout the course.

**Course Goals and Learning Outcomes**

On the successful completion of the course, students will be able to:

1. Explore the basic methodologies and conceptual skills of game design, such as
  - a. systems thinking
  - b. an iterative design process
  - c. playtesting
  - d. design collaboration
  - e. critical design analysis
2. Create several playable games using an iterative design process
3. Distinguish what games are, on and off the computer, and how they function to create meaningful experiences for players
4. Organize and summarize fundamental concepts relating to games and design, such as
  - a. rules and play
  - b. emergent complexity
  - c. long and short-term goals
5. Examine games as formal systems, experienced human systems, and cultural systems
6. Interpret the foundational texts in the field of game design, and
  - a. understand game design as a field that encompasses all kinds of games
7. Apply and link the principles of the course to computer and video games on a variety of platforms

### **Required Text**

- Game Design Workshop: A Playcentric Approach to Creating Innovative Games, Third Edition by Tracy Fullerton ISBN-10: 1482217163
- Brathwaite, B., Schreiber, I. (2008) Challenges for Game Designers. ISBN-10: 158450580X
- The Acagamic blog: [www.acagamic.com](http://www.acagamic.com)
- **Optional:** Schell, J. (2008) The Art of Game Design: A book of lenses. ISBN-10: 0123694965
- **Optional:** Salen, K., and Zimmerman, E. (2003) Rules of Play: Game Design Fundamentals. ISBN-10: 0262240459

I definitely recommend the book Game Design Workshop to every student. Additional readings may be assigned or recommended during the course.

### **Required Equipment**

You are required to buy the following and have them with you for classes:

- Two 6-sided dice
- A deck a 52 French playing cards (hearts, diamonds, clubs, spades, 13 each suit)
- Loose sheets of plain or graph paper (e.g., [http://do2learn.com/activities/mathhelpers/graph\\_paper/1-4\\_inch.pdf](http://do2learn.com/activities/mathhelpers/graph_paper/1-4_inch.pdf))
- Pens, pencils, erasers, or general writing materials

### **Course Requirements and Assessment**

ALL assignments must be completed in order for a student to pass this course with a C grade or higher. Any student receiving a grade of D or lower on any assignment is strongly encouraged and expected to discuss the matter with me in office hours.

For all written assignments and exams, we reserve the right to calculate the total percentage received

by multiplying with a percentage factor between 0-1 based on the TA's/Prof's evaluation according to rubrics. Online items (quizzes or written assignments) can be turned in online to your instructor only during the timeframe in which items are available. A submission only counts if it is registered in Learn or by your TA/instructor.

All important new information, such as course news, notes, additional reading, etc. will be available on the Learn course page. It is your responsibility as a student to check the Learn course page for new information. Although I will regularly monitor Learn's discussion board messages, these messages are not considered official communication between students and instructor. Emails regarding an assignment received within 24 hours of the assignment due date will not be answered; it is your responsibility to start your assignments early.

Please wait at least 24 hours after you have received a grade before discussing it with me. However, if you want to discuss a particular grade you must do so no more than one week after the grade is returned. I'm happy to address questions and concerns; I'm not interested in negotiating point values once you've done the math for how an assessment will impact your overall grade.

For group work, you must either state that there was equal contribution among all members in a team or complete a peer evaluation form for your team members. Peer evaluations will affect your individual grade for group work by a factor from the average of your peer grade for your work and my grade for your work.

All term issues have to be resolved prior to the last day of classes. Collaboration is not permitted on the midterm exam! Any answers found to be similar will both receive a grade of zero. You are not allowed to talk about the midterm exam to any other students that have not completed the exam, yet. This as well as any cheating on subsequent work will be treated as academic misconduct. For details, please refer to policy 71 regarding academic honesty and professional unsuitability and associated penalties. One simple rule about cheating in this course: Don't do it!

<b>Assessment</b>	<b>Weighting</b>
Homework	25%
Attendance	5%
Game Design Blog Post	15%
Midterm	25%
Final Presentation	30%
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Total	100%

Your grade for this course will be calculated according to the above distribution ranging over homework, attendance, a blog post, midterm, and final project presentation grades. Homework and Final Presentations will be done in groups.

## Grading Scale

I will be using a standard A through F scale outlined at the following URL:

<http://ugradcalendar.uwaterloo.ca/page/uWaterloo-Grading-System>. The following is a brief sketch of what qualities correspond to each letter grade in this class:

- Cs are the average; they are not what you get for blowing off this class. A grade of C indicates that you met all of the criteria on a given assignment. C's are not cause for alarm—they mean that you are doing fine.
- Bs shows that you have done more than what is required. It may mean that you have done extra research and contributed regularly to class discussion, and that you have produced a paper that is stylistically innovative, interesting, and exceptionally solid.
- An A performance is a superior performance in this class. To get an A, you must expend increased effort to seeing and thinking beyond the surface level in your reading, research, and speaking as well as show particular skill in composing your work. An A performance includes being a leader in class activities and demonstrating critical thought in both class discussion and your assignments.
- To get a D, you will not have completed all assignments in a sufficient and timely manner. Also, a D will be given if it is clear that sufficient effort and time is not being spent on reading, your major assignments, and class participation.
- An F will be given in cases where a student's work is seriously lacking. Plagiarism will also result in a grade of F.

## Homework (Groups)

There will be a total of 3 homework assignments during this course, where you will have to create a board, card, or another form of non-digital game. The instructions for the homework assignments will be posted online and the physical assignments will need to be handed in to the TA.

## Attendance

You show up in class prepared and participate in discussions. There will be no rubric for in-class participation. Your contributions to discussion, group activities, and the general classroom atmosphere will be vital in determining what knowledge and skills you take from this course. This means that you are expected to show up on-time having properly prepared for whatever is planned according to the class calendar or prior announcements. You should ask questions, offer answers, listen, facilitate others' opportunities to contribute, and respect your classmates' opinions.

Students who do not attend class will receive no attendance credit for missed days. A respectful attitude towards your classmates is required. If you want, you can also take the discussion online (in addition to attending the class) by using the hashtag #DAC300 on Twitter. This will however not be counted towards your attendance grade.

Quizzes might be given at certain times before lectures to make sure students are following up on the reading material presented in the course and to promote class attendance. Typically, they will be easy

enough to complete and obtain a good mark provided you viewed the additional material. Make sure that you attend each lecture to avoid missing a quiz.

### **Game Design Blog Post**

Every student is expected to write one blog post at a blogging platform of their choice (I recommend using medium.com, which nicely integrates with Twitter, or wordpress.com for your blogs, but it can also be posted in Learn) with their in-depth analysis of a game (video game or otherwise) that they have played. Blog posts should range around 700-1000 words. Every student in the class has to do this once. You will need to provide the following in your blog post game analysis:

- Provide an exegesis of the main ideas of the game and its design as well as the core points of the game mechanics explained. Focus on making your post useful for game designers. Show how many of the core points of game design you have already understood and you can find in the game. Focus on the formal systems and dramatic elements of the game.
- Add your own view on how you experienced the game.

Here are some examples of what these blog posts could look like:

- <http://iceninja77.blogspot.ca/2012/09/goals-are-spice-for-games.html>
- <http://iceninja77.blogspot.ca/2012/09/portal-2-ways-to-design-level.html>
- <https://matthewpapps.wordpress.com/type/aside/>
- <http://wbalaniuc-infr3330.blogspot.ca/2013/11/crafting-dekonstruer-2-demons-souls.html>

### **Midterm**

The midterm will be either written or oral. You will need to provide answer to questions relating to all lecture topics covered before the midterm.

### **Final Project Presentation (Groups)**

At the end of the course, you will need to present one final non-digital game to the rest of the class that you have developed with a group of 5 people. Instructions for the final project will be posted in Learn. At the minimum you will need to hand in:

- A one-page design document for your final game (can be a printed poster or a digital PDF)
- The physical game, complete with instruction and all required game pieces
- A final presentation in front of the class, lasting 10 minutes with 5-10 minutes of questions and answers

### **Course Outline**

I would generally recommend for students to keep up to date with Gamasutra design articles, which can be found here: <http://gamasutra.com/category/design/>

<b>Week</b>	<b>Date</b>	<b>Topic</b>	<b>Readings Due</b>
1	07/01/2016	Introduction to the Class, The Role of the Game Designer	<a href="http://goo.gl/pEors1">http://goo.gl/pEors1</a> <a href="http://goo.gl/kSukwP">http://goo.gl/kSukwP</a>

Week	Date	Topic	Readings Due
2	14/01/2016	Guest Lecture: Rina Wehbe: Design documents, concepts, and one-page design docs	<a href="http://goo.gl/TfjiH5">http://goo.gl/TfjiH5</a> <a href="http://goo.gl/po7p9q">http://goo.gl/po7p9q</a> <a href="http://goo.gl/YHTxhp">http://goo.gl/YHTxhp</a>
3	21/01/2016	The formal systems of games and game design atoms I	<a href="http://goo.gl/UJmFbF">http://goo.gl/UJmFbF</a>
4	28/01/2016	The formal systems of games and game design atoms II and Player Types	<a href="http://goo.gl/QnyA8J">http://goo.gl/QnyA8J</a>
5	04/02/2016	Dramatic Elements of Games and Narrative Design	<a href="http://goo.gl/QnyA8J">http://goo.gl/QnyA8J</a>
6	11/02/2016	Game System Dynamics	<a href="http://goo.gl/yScPle">http://goo.gl/yScPle</a>
-	18/02/2016	<b>READING WEEK</b>	READING WEEK
7	25/02/2016	Midterm Exam	Exam
8	03/03/2016	Chance and Skill in Game Design	<a href="http://goo.gl/T517Re">http://goo.gl/T517Re</a>
9	10/03/2016	Guest lecture: Reverse game design	<a href="http://goo.gl/ZBk3gr">http://goo.gl/ZBk3gr</a>
10	17/03/2016	Games as art, games as culture, and social play	Williams, J. P., Hendricks, S. Q., & Winkler, W. K. (Eds.). (2006). Gaming as culture: Essays on reality, identity and experience in fantasy games. McFarland. <a href="https://goo.gl/u6K11t">https://goo.gl/u6K11t</a>
11	24/03/2016	Functionality, Completeness, and Balance	<a href="http://goo.gl/DxwuPO">http://goo.gl/DxwuPO</a>
12	31/03/2016	Basic playtesting and quality assurance	<a href="http://goo.gl/Q85N26">http://goo.gl/Q85N26</a> <a href="http://goo.gl/LJ3jtn">http://goo.gl/LJ3jtn</a>

### Course Disclaimer

Final course grades may be adjusted to conform to program or Faculty grade distribution profiles. This course outline documents my intentions for this course. If over the period of the academic year, it becomes apparent that modifications are necessary, the following strategy will be pursued: Any necessary modifications that may influence student success or the marking scheme will only be made after in-depth, frank discussion with the students and prior approval from the DAC unit director.

### Late Work

**I do not accept late assignments. If Learn or the TA marks your submissions as late, you will receive a zero on that assignment. There are no exceptions to this rule.** To make a successful submission, give yourself ample time to submit before an assignment is due (Learn may slow down due to server load – submit a bit early to be safe). If you miss an in-class assignment, exam, or quiz, you will receive a grade of zero for that item. If you are unable to hand in or attend the exam/assignment in question due to an illness or bereavement, you must provide valid documentation to the registrar’s office within 5 days of the exam/assignment date/due date. For medical reasons, you must fill out the appropriate Medical Statement.

## **Request for Regrading**

Any requests for regrading of student work, will have to be done in writing with a signed paper letter submitted to the instructor directly. These requests will have to be submitted to the instructor first.

## **Information on Plagiarism Detection**

Students and faculty at the University of Waterloo share an important responsibility to maintain the integrity of the teaching and learning relationship. This relationship is characterized by honesty, fairness, and mutual respect for the aim and principles of the pursuit of education. Academic misconduct impedes the activities of the university community and is punishable by appropriate disciplinary action.

I reserve the right to use electronic means to detect and help prevent plagiarism. Students agree that by taking this course all assignments are subject to submission for textual similarity review by software (e.g, Turnitin.com or Grammarly). Assignments submitted to Turnitin.com will be included as source documents in Turnitin.com's restricted access database solely for the purpose of detecting plagiarism in such documents for five academic years. The instructor may require students to submit their assignments electronically to Turnitin.com or the instructor may submit questionable text on behalf of a student.

## **Examinations**

Final and midterm examinations are held during the final examination period at the end of the semester and may take place in a different room and on a different day from the regularly scheduled class. Examinations may be in oral or written form. Check the published Examination Schedule for a complete list of days and times. Students are advised to obtain their Student ID Card (Watcard) well in advance of the examination period as they will not be able to write their examinations without it.

## **Electronic Device Policy**

Cell phones must be turned off during lectures. If you forget to turn off your cell phone and it rings during class, I reserve the right answer it. See Appendix A for more suggestions regarding the use of electronic devices in my classroom. You should only use your electronic devices in a way that makes you more productive in class or allows you to participate in enhanced learning activities. Disruptive laptop use (gaming, coding, other class work, etc.) will not be tolerated. Sometimes you will be asked to close or shut down your electronic devices for class activities. You must follow this advice without exceptions.

## **Attendance Policy**

Lecture notes are not a substitute for class attendance. Attend class and read before class to ensure that you have received and understand the material. If you are not sure about anything, please make an appointment with me early or come to my office hours. If you never ask, I will not be able to help you.

Do not interrupt class mates. If you arrive late or need to leave early, please sit near the back.

REMEMBER: You are a professional, govern yourself accordingly.

## **Cross-listed course**

Please note that a cross-listed course will count in all respective averages no matter under which rubric it has been taken. For example, a PHIL/PSCI cross-list will count in a Philosophy major average, even if the course was taken under the Political Science rubric.

## **Academic Integrity**

**Academic Integrity:** In order to maintain a culture of academic integrity, members of the University of Waterloo are expected to promote honesty, trust, fairness, respect and responsibility.

**Discipline:** A student is expected to know what constitutes academic integrity, to avoid committing academic offences, and to take responsibility for his/her actions. A student who is unsure whether an action constitutes an offence, or who needs help in learning how to avoid offences (e.g., plagiarism, cheating) or about “rules” for group work/collaboration should seek guidance from the course professor, academic advisor, or the Undergraduate Associate Dean. When misconduct has been found to have occurred, disciplinary penalties will be imposed under Policy 71 – Student Discipline. For information on categories of offenses and types of penalties, students should refer to [Policy 71 - Student Discipline](#).

**Grievance:** A student who believes that a decision affecting some aspect of his/her university life has been unfair or unreasonable may have grounds for initiating a grievance. Read [Policy 70 - Student Petitions and Grievances, Section 4](#).

**Appeals:** A student may appeal the finding and/or penalty in a decision made under Policy 70 - Student Petitions and Grievances (other than regarding a petition) or Policy 71 - Student Discipline if a ground for an appeal can be established. Read [Policy 72 - Student Appeals](#).

## **Other sources of information for students**

[Academic integrity](#) (Arts) [Academic Integrity Office](#) (uWaterloo)

## **Accommodation for Students with Disabilities**

**Note for students with disabilities:** The [AccessAbility Services office](#), located in Needles Hall Room 1132, collaborates with all academic departments to arrange appropriate accommodations for students with disabilities without compromising the academic integrity of the curriculum. If you require academic accommodations to lessen the impact of your disability, please register with the AS office at the beginning of each academic term.

## **Appendix: Other Policies and Expectations for the Learning Environment**

### **1. Effective Learning in the Classroom**

The following are suggestions on how to carry out effective learning in your daily studying:

#### **Pre-Class Preparation:**



Before you go to your classroom, you should allow enough time for commuting, and eat a healthy meal or snack. Also, you should ask yourself the following questions:

- Have you *previewed* the reading assignments?
- Have you noted down key insights and questions from your reading?

\* *Rule of thumb*: for every hour lecture, you need approximately three hours of outside class studying to reinforce the material learnt in class.

### **In-Class Attitude:**

To get the most out of your lectures, you need to:

- Arrive to class On Time
- Concentrate (be curious and be motivated)
- Be Active:
  - in class discussion
  - in group activities
  - in creative and critical thinking

And you should also **AVOID** the following:

- Eating 'strong smelling' or 'noisy' food
- Getting involved in side conversions
- Sending signs that scheduled class time is up, i.e. closing up your laptop or standing
- Answering cellular phones in class

After class

- Review lecture notes; highlight key points
- Consult instructors or TA for unresolved questions
- Seek help when necessary
- Finish assignments on time

## **2. The use of a laptop, computer, or smartphone in the classroom**

The use of laptops, computers, or smartphones often enhances the learning experience. However, there are circumstances when it can be obstructive. Instructors have the right and the responsibility to determine appropriate classroom protocols for student use of these electronic devices. Students refusing to comply with such requests may be requested to remove themselves from the classroom.

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| <ul style="list-style-type: none"><li>• <b>Examples of appropriate use of devices</b><ul style="list-style-type: none"><li>- Taking lecture notes</li><li>- Course related computing</li><li>- Limited messaging for learning purposes</li><li>- Download course material from Learn</li></ul></li></ul> | <ul style="list-style-type: none"><li>• <b>Examples of inappropriate use of devices</b><ul style="list-style-type: none"><li>- Watching movies</li><li>- Playing computer games unless advised</li><li>- Social messaging services</li></ul></li></ul> |
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## **3. Effective team management**

The following are suggestions on how to effectively manage your teamwork:

- Setting clear objectives
- Signing a team contract
- Meeting regularly in person, in addition to online meetings
- Conducting effective meetings
- Assigning roles to members
- Staying in touch: meeting, emails, Slack, phones
- Managing conflicts effectively

#### **4. Managing Conflict**

The following are suggestions on how to resolve conflict that could possibly happen during your studying:

- Have a team contract to guide conflict resolution.
- The team "leader" might send an e-mail to the absent member, and copy all members, asking why he or she missed the meeting.
- Keep an attendance log and use this as part of your peer review process.
- Try to avoid making any decisions that are known to be an issue for an absent member until that person can be reached.

#### **5. In the event of the illness**

In the event of illness, you are suggested to:

- Please stay home so as not to spread it to others
- Contact your Academic Advisor by email or phone right away – not your instructor.
- Also check the following website <http://www.cdc.gov> for further health and wellness information.