

STV205 Winter 2010 Syllabus

Dr. Scott M. Campbell

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Contents

1 Introduction	1
2 Course Details	2
3 Assignments, 40%	5
4 Tests, 50%	7
5 Participation, 10%	7
6 Schedule (Tentative)	8

1 Introduction

1.1 Calendar description

Cybernetics and Society

Cybernetics is the study of the interfaces between humans and machines. This course will present an overview of cybernetics from automation and robotics to prosthetics and wearable computing. The roles of men and women in a post-human era will be discussed along with related themes dealing with gender, cyberspace, politics and popular culture.

Credit wight: 0.5

Pre-requisite: None

1.2 Location and Time

Lectures: RCH 305, Thursday 7-10pm

- Lectures are delivered with the aid of slides, which will be available for students to download from ACE before the lectures.
- The slides do not replace lecture notes; you must be prepared to listen and take additional and effective notes
- Participation and questions from students are encouraged during lectures

Tutorials: Location TBA, Thursday 9-10pm

- Tutorial participation relies on having attended the lecture, and completing the reading material in advance.
- Student participation is expected and attendance is recorded.

1.3 Instructor

Dr. Scott Campbell, sm2campb@uwaterloo

<http://cstv.uwaterloo.ca/people/campbell.html>

Office: E3X 3174 Ext. 35635

Hours: Tuesday 1-3pm (or by appointment, please phone or email)

I check email during regular business hours and will address short questions as quickly as possible, but longer replies may take a day or more. As a general rule, don't expect replies on weekends. For immediate queries or questions about extensions or illnesses, please phone.

1.4 Teaching Assistant and Markers

Karl Griffiths-Fulton, kgfwork@gmail.com

Office: E3X 3171

Hours: Wednesday 9:30-11:30am

Wendy Stocker, wlstocke@uwaterloo.ca

Office: E3X 3171, x36215

Hours: By appointment, phone or email

2 Course Details

2.1 Evaluation

The breakdown of grades for the course this term is as follows. See sections 3, 4, and 5 for more information.

Assignments	40%
Test 1	25%
Test 2	25%
Participation	10% + online bonus

2.2 Website

Please use UW-ACE for access to lecture slides, assignment details and drop boxes, the course readings, a course discussion forum, and other resources.

2.3 Readings

Each lecture is accompanied by a set of readings and associated study questions, which can be found in the Reading List on ACE, under *Lessons*. The Reading List will have links to two sets of readings: primary and supplementary.

The primary readings are required. These readings should average 1 to 2 hours per week. You should read each carefully, consider the questions in the reading list, and be prepared to discuss

them in tutorial. They are also directly testable: approximately one quarter to one third of the test questions will be derived from the primary readings.

The supplementary readings are not required, but are intended to fill in gaps, go a little deeper, or provide alternative views. They are not testable but may be used as suitable source material for tutorial discussions or any written work you submit this term. If you have time, you should try to read them.

2.4 University Policies

The following sections are University Policies that apply to every undergraduate course at the University of Waterloo and must appear on a syllabus.

2.4.1 Academic Integrity

In order to maintain a culture of academic integrity, members of the University of Waterloo community are expected to promote honesty, trust, fairness, respect and responsibility. Check www.uwaterloo.ca/academicintegrity/ for more information.

2.4.2 Discipline

A student is expected to know what constitutes academic integrity (check www.uwaterloo.ca/academicintegrity/) to avoid committing an academic offence, 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 instructor, academic advisor, or the undergraduate Associate Dean. For information on categories of offences and types of penalties, students should refer to Policy 71, Student Discipline, www.adm.uwaterloo.ca/infosec/Policies/policy71.htm. For typical penalties check Guidelines for the Assessment of Penalties, www.adm.uwaterloo.ca/infosec/guidelines/penaltyguidelines.htm.

Note that all cases of academic misconduct – even minor mistakes or apparently trivial cases – must be reported to the appropriate academic dean. There are no exceptions to this rule!

2.4.3 Appeals

A decision made or penalty imposed under Policy 70 (Student Petitions and Grievances) (other than a petition) or Policy 71 (Student Discipline) may be appealed if there is a ground. A student who believes he/she has a ground for an appeal should refer to Policy 72 (Student Appeals) www.adm.uwaterloo.ca/infosec/Policies/policy72.htm.

2.4.4 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, www.adm.uwaterloo.ca/infosec/Policies/policy70.htm. When in doubt please be certain to contact the department’s administrative assistant who will provide further assistance.

2.4.5 Students with disabilities

The Office for Persons with Disabilities (OPD), 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 OPD at the beginning of each academic term. Please contact the instructor as soon as possible if you require academic accommodations.

2.5 Course Policies

The following are policies specific to this course.

2.5.1 Attendance and Participation

Attendance will be recorded in the tutorials and will be considered part of your participation grade (see section 5).

2.5.2 Late assignments

All assignments will be penalized 1% from your final overall grade per 24 hour period past the deadline, to a maximum of the assignment value. This includes weekends, as all assignments can be submitted online. Consideration may be granted if you contact the instructor for an exception *before* the due date (see 2.5.7).

There is no buffer or grace period for assignments submitted electronically. Give yourself adequate time to finish and submit.

2.5.3 Group work

For assignments, students are expected to develop their own ideas in their research and writing, but are also encouraged to approach their colleagues, friends or family to discuss their ideas or for help proofreading essay drafts. See section 3 for more information about the assignments.

2.5.4 Regrading

Grades for all assignments and tests can be appealed, using the following process:

1. Talk with the person who graded your work for more information about the grade you received.
2. Submit to the instructor a written justification explaining why you feel your grade is inappropriate.
3. The instructor will regrade the entire assignment or test. The new grade may be higher or lower than the original, and will be considered final.

2.5.5 Test conflicts

Other instructors occasionally schedule tests during our official class time. In case of such a conflict, the other instructor is required to make alternate test arrangements for students with a conflict. See *University of Waterloo Examination Regulations and Related Matters*, <http://www.registrar.uwaterloo.ca/exams/ExamRegs.pdf>.

Students are expected to notify their instructors of such conflicts as soon as possible.

2.5.6 Gender-fair language

Gender-fair or gender-neutral language should be used for all assignments and tests. That is, don't use "man" to refer to "humans", and don't use "he" to refer to a person unless you know that person is male. You may be penalized for failing to use appropriate terms. To familiarize yourself with gender-fair language, see: <http://www.rpi.edu/web/writingcenter/genderfair.html>.

2.5.7 Exceptions and Extensions

Student who are ill must contact the instructor within 48 hours of a missed deadline. A *University of Waterloo Verification of Illness* form is required within one week of a deadline.

Student with flu-like symptoms do not require a *Verification of Illness* form, and should self-report their case via Quest. See <http://www.uwaterloo.ca/influenza/> for more information about Influenza-related illness.

All exceptions to the course policies require documentation and, wherever possible, advance notice. Unplanned family emergencies and illnesses are generally good reasons for an exception; a heavy course load or a failure to plan ahead is not a good reason.

2.5.8 Excessive Disruptions and Laptop computers

Lectures are not the ideal time for talking loudly, playing games, writing email, or reading newspapers. Disrupting the lectures in a way that affects other students will not be tolerated.

I discourage the use of laptop computers unless you are only taking notes during the lectures. If you are playing games or surfing the web it can be very distracting for students around you. I strongly suggest that laptop users use the rows at the rear of the room to avoid this problem.

2.5.9 Feedback

I encourage course feedback at all times. Contact me directly, pass a message via the TA, or submit anonymous comments on UW-ACE. Look under the *Lessons* tab for the anonymous feedback drop box. I will attempt to address all concerns as soon as possible.

3 Assignments, 40%

There are three writing assignments. They all require you to respond to the course material, think critically, and develop your own ideas. Some research will be required along the way, although you will be given appropriate limitations and boundaries.

In all cases, further details will be made available in class and on ACE.

3.1 Assignment 1, 5%

Due: 6pm January 28

The first assignment is a very short one, intended to reinforce course concepts and themes early in the term. It will be based on lecture material and readings, and will require you to discover and identify appropriate examples, and discuss your findings.

3.2 Assignment 2, 15%

Due: 6pm Feb 25

The second assignment will be longer, and encourage you to think more about the relationship between cybernetic technologies and society. Again, you will be required to discover and identify appropriate examples, and analyze and discuss your findings.

3.3 Assignment 3, 20%

Due: 6pm March 18

The final essay assignment concerns cyberspace technologies. You will have more freedom to develop your own ideas, but you must keep them grounded in course concepts or themes and additional research.

3.4 Assignment notes

- All assignments must be submitted electronically to ACE by 6pm on the due date; see above for late penalties and exceptions. Paper submissions are required in-class.
- All assignment disputes will be resolved with reference to the electronic copy; for example, the late penalty will apply to the copy submitted to ACE. Remarketing will apply to the electronic copy; any issues regarding academic integrity will be settled via the electronic copy.

3.5 Assignment specifications

- Always include your name, student ID, date, page numbers, and a title; title pages, folders, duo-tangs are unnecessary
- All documents should employ 12-point, Times Roman font, 1" margins, and be double-spaced. This corresponds roughly with 250-300 words per page.
- Include a word count at the end of your assignment. Notes and the bibliography should not be included in the count.
- All assignments must include citations in the text (footnotes, endnotes, or in-text), especially when quoting, as well as a bibliography. References must be consistent and must employ a known citation style.
- Improper citation style, failure to include a bibliography, and inappropriate references to Wikipedia are all grounds for failing an assignment.

3.6 Writing Assistance and Guidance

A folder on ACE contains a series of documents with advice on writing, tailored for students taking STV courses. I encourage you to read these documents.

Although the TAs and I are primarily interested in your ideas, we are also going to evaluate your ability to express yourself coherently, and we expect proper spelling, grammar, and formatting. We also expect you to defend your ideas with suitable references and evidence, without vast generalizations.

The English Language Proficiency Program also offers help for students who need help. Visit the Writing Centre in the PAS building <http://elpp.uwaterloo.ca/writingcentre.html>. They are not a proofreading service, but will help all undergraduates with their writing.

4 Tests, 50%

Feb 11 and Apr 1, 25% each

There will be two in-class midterm-type tests, worth 25% each. Each will be two hours, with short questions, paragraph-length questions and essay questions. The tests are closed-book and non-accumulative with respect to each half of the course. That is, the second test deals almost exclusively with material from the second half of the course.

Further details will be made available in class and on ACE, where a sample of the *type* of questions can be found.

5 Participation, 10%

One of the overall goals for this course is to learn to appreciate cybernetics and technology from the perspective of others. As such, students will get a chance to share responses to the course material with other students. To encourage this, tutorial attendance and timely completion of course surveys on ACE will be recorded and used to generate a participation grade.

5.1 Tutorials, 5%

The class will be randomly divided into tutorial sections of approximately 20 students. Tutorials occur after the main lecture, generally at 9pm, and each section will meet four times as indicated on the schedule: the first two sections will meet before the first midterm, and the latter two sections will meet after the midterm. The tutorials are led by the instructor and the TA.

All tutorial students are expected to be ready to discuss and debate the current week's reading. Of course, discussion is not just talking, it also requires listening and thinking. Your instructor or TA will moderate the discussion, as well as address questions about the course material, but the purpose of these sessions is for students to engage actively with the course material and other students.

5.2 Surveys, 5%

Most weeks a survey will be posted to ACE, asking questions related to the upcoming lecture. Students are expected to respond in a timely and honest fashion, and will receive a grade proportional to the number of surveys completed.

The instructor will collate the survey responses for discussion at the following lecture. Please note that the surveys are not anonymous to the instructor. Students who abuse the surveys with irrelevant or joke answers will forfeit this portion of their participation grade.

5.3 Online Bonus, up to 3%

On ACE there is a discussion forum for this course. Look on ACE for the discussion board under the *Lessons* tab. It is there for students to discuss the course material and readings, post links to interesting events or items in the news, or ask administrative questions. The instructor will monitor the board and contribute regularly. It is suggested that students use the subscription function, to avoid missing any useful messages.

Online participation is not required, but students who do make use of it may earn a bonus proportional to the quantity and quality of participation and up to 3% over and above their 10% participation grade. The bonus cannot elevate a final grade beyond 100% for the course.

6 Schedule (Tentative)

Date	Lecture Topic	Event or Deadline	Tutorial
Jan. 7	0. Welcome		
Jan.14	1. What is cybernetics?		1,2
Jan 21	2. Humans and machines I		1,2
Jan. 28	3. Humans and machines II	Due: Assignment 1, 5%	1,2
Feb. 4	4. Cyborgs to cyberspace		1,2
Feb. 11		Test 1, 25%	
Feb. 16	Reading Week		
Feb. 25	5. Cyberspace I	Due: Assignment 2, 15%	3,4
Mar. 4	6. Cyberspace II and affective Computing		3,4
Mar. 11	7. Artificial Intelligence		3,4
Mar. 18	8. Gender and cybernetics	Due: Assignment 3, 20%	3,4
Mar. 25	9. The Singularity, progress and the future		Reserved
Apr. 1		Test 2, 25%	

Some lectures may run long, and tutorials may be cancelled, so students should not schedule other activities during the 7-10pm block, regardless of which tutorial they are in.

See <http://www.quest.uwaterloo.ca/undergraduate/dates.html> for more information regarding university dates for drop deadlines and related penalties.

6.1 Final Grades

Final grades will be uploaded to Quest when the marking is completed – please don't ask when, it is impossible to predict. Also note that final grades will be rounded by ACE and Quest using a round-to-even method, which is more fair statistically, but perhaps not what all students are used to.