Instructor: Professor Virginia Ayres  
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Office Hours: Wednesdays, 3:00-6:00 pm, EB 2308A Engineering Building, or email for an appointment

Grader: Chet McCleskey  
Email: mcleskey@msu.edu  
Chet M. McCleskey is a PhD candidate in Ethics in the Michigan State University Department of Philosophy, and an Instructor at Jackson Community College

Class meets:  
Section 001: Friday, 9:10 AM - 10:00 AM, 1234 Engineering Building  
Section 002: Wednesday, 1:50 PM - 2:40 PM, 1230 Engineering Building

Course Website:  [www.egr.msu.edu/classes\ECE390\ayresv](http://www.egr.msu.edu/classes\ECE390\ayresv)

Course Outline:

Part I: Student Issues:  
Case history 01: CourSera  
Case history 02: Why not to tell about cheating

Part II: Contemporary Issue: Drones  
Case history 01: Use of Drones  
Case history 02: Engineering of Drones

Part III: Professional Issues:  
Speakers: International Ethics Panel  
Case History 01: Your first professional international collaboration

Course Themes and Tools:

1. Ethics and other responsibilities  
2. Ethical toolkits: Rule-based, Deontology, Kant. Consequentialism, utilitarianism.  
3. Is there room for ethics in today’s practice of engineering? What do we understand by ethics? How do we develop ethics?
4. Role of organizations in creating ethics codes. IEEE Code of Ethics. Ethics Committees and enforcement
5. What responsibilities do engineers have to their employer? How do they match with the responsibilities to society? Responsibilities of employer to the engineer.
7. Professional communication styles – use of a tool to assess your style, consideration of communicating with others who have different styles.

**Essays and grading:**
There will be three essays to write in this class. They’ll be assigned two weeks before they are due, and each will be weighted equally in your grade. Typical schedule is:
Papers are assigned at the conclusion of Case history 02/ Speaker 02
2 weeks later – paper due in class
3 weeks later – paper returned, graded
4 weeks later – paper rewrite due (if applicable)

The essays in this class will be short, but they have to be well organized and presented. Discussions not to the point leave less space for analysis and result in a lower grade.

References in your essays must be of an archival nature. This means that journals and newspapers can be used in addition to books, even if they are available on the internet. On the other hand, somebody’s blog, or even Wikipedia articles, change often and are not acceptable. If you take language from a site that is not archival, you must still cite it and provide the reference, but must recognize that you should not be using it as an authority, and that the reader may be unable to access it.

Some of the newspaper references are available to college students. For example, the New York Times allow unlimited access on line to old editions, free to those with a *.edu email address. MSU’s library website has a number of books to borrow and “Science and Engineering Ethics” journal on line (as well as others).

You MUST CITE in the body of your essay the source you are using, at the place—for example, in the paragraph—where you use information from that source. The references at the end may be numbered in order of use or sorted alphabetically. Appropriate citations are then numbers in brackets [1] or superscripts1 for numbered references, or in the form [Goodman et al., 2003], for example, to cite an article written by Goodman and some others in 2003. See any of the style guides (for example, Strunk and White) if you need more guidance.

**Plagiarism and cooperation on assignments**

Neither is acceptable.
And there are software programs that will find commonalities of any given paper with a lot of sources and other papers. **We use these programs.** Any plagiarism incident will bring the heaviest possible repercussions (a grade of 0 for the assignment, at the least). Note that you can, and **should**, use work and texts of others; you just have to either 1) rephrase them in your own words, citing the reference as the source of the ideas, or 2) put them in quotes and cite the reference; see above.

**If you are not a native speaker of English, or if you are but want help in organizing your writing, you should prepare each essay as follows:**

1. Make an appointment in advance with the Writing Center (300 Bessey Hall, 2-3610) **as soon** as the assignment is made, for about 3-7 days before the assignment is due.
2. Do your research and find material you will use for formulating your arguments.
3. Write your first draft, and take it with you to the Writing Center for your appointment.
4. Follow the recommendation of the Writing Center staff and rewrite your essay in preparation for the due date.
5. Do **not** wait until a few days before the assignment is due, or the Writing Center will likely not be able to see you.

**General References:**

1. S.F. Johnston, J.P. Gostelow and W.J. King, *Engineering and Society*, Prentice Hall,
2. C.B. Fleddermann, *Engineering Ethics*, Prentice Hall,

**Attendance:**

ECE 390 has a mandatory attendance requirement because it fulfills an ABET accreditation requirement that is not covered by any other course. Each unexcused absence from the class above three will result in 5% subtracted from the grade, and more than 6 unexcused absences will result in a zero grade. Absences may be excused if the instructor is notified by email (ayresv@msu.edu) at least one day before the class to be missed, or after the class, with an official excuse according to University policy (e.g., signed excuse from Olin Health Center).