Doolittle opinions and comments:

I highlighted in yellow some comments I found interesting. Many I agreed with, many I did not. Highlights are not “endorsements of opinions” only “points of interest in an otherwise lengthy and often repetitive discussion. The following is a short “summons and rebuttal”.

Erroneous Interpretation:
I am not making mass accusations of any kind. Just curious on your opinions and looking for suggestions.

General Class Feelings:
The vast majority of the responses were “Cheaters are bad and hurt my grades”, “ethics are important for a civil society” and similar responses. Some disagreed and some were clearly confused particularly as to whether academic cheating was unethical based on the natural competitiveness of society.

Regarding “The pressure made me do it” excuse which was very prevalent: The rigor of the GT program is more valuable than the academic topics taught. GT forces time management, good work ethics, and focus. These traits ultimately lead to success regardless of your chosen field. If you can handle GT, you are on your way to handling most jobs. However, the pressures of grades and getting the first job is insignificant compared to the pressures placed on you by your future work. Be prepared – work is harder than Tech! In short, pressure is not a valid reason to succumb to cheating. Cracking under pressure to “perform” merely exposes weaknesses that existed before the pressure was applied.

Ethical Clarity:
Many essays seemed conflicted – it is okay to do “X” in this situation but wrong in another. Those that invoke various religious discussions seem to have the highest ethical clarity while admitting that religions are flawed in similar ways. Perhaps this indicates a proper role of religion in society?

I found it ironic that on an ethics assignment, some chose to copy “ethical examples” off the web without credit.

Finally, I found it profound that in the random listing of essays, the last comment in the last essay was:

“Engineering students should be held to a higher standard, we’re supposed to be the ones who fix problems for society, not create them.”

Very nicely put!
Ethics in general are important because ethical behavior is what separates us from lower levels of animals. Ethics are apart of a person’s moral fabric and without ethics society would be torn at the seam. Engineering also requires ethics and they are important to the livelihood of society. Engineering ethics ensure the safety and performance of many of the structures and technological advances that society benefits from. As purveyors of engineer the engineering student should be held to a high ethical standard and anything that goes against that should be dealt with accordingly. I believe that engineering ethics are important, and I also believe that students are placed under a huge amount of pressure at Georgia Tech.

Ethical behavior is making choices that may go against your immediate judgment for choices that are the best for yourself and others around you. Purely acting out of impulse or acting falsely based on improperly obtained information is making choices that go against what is best for you or people that are around you. Your decision not only cheats you into a false sense of accomplishments your achievements also cheats the people around you by representing something that you are not. If ethics were not prevalent in society people would simple do things without regard to the effects on other people.

As an engineering student I do believe that engineering students should be held to a high ethical standard. Engineering students have chosen a profession that actively affects people’s lives. I also believe that students at Georgia Tech are placed under a lot of pressure that may tear at the seams of the moral fabric of society. It is not uncommon for a student to take 12 to 13 hrs and have four homework assignments, a lab homework assignment and a paper due every week and to complete these things, immediately start again, and study for that test you have coming up. It is not uncommon to score a grade of 60 or below on a test and have a 40 and higher be an acceptable grade or have a teacher tell you that they place all your classmates grades on a board and judges where to draw the line for different grades. Also, for those who already may have low self-esteem issues to have a teacher tell you that you are wasting your time trying to be an engineer. For the person who is playing for school why not raise your tuition in the middle of a school year? Don’t forget about the teacher that schedules a test the last day of the Withdrawal period?

Do I believe that engineering students should be held to a higher standard? Yes. But, I do understand why some people resort to cheating. Was it wrong for Robin Hood to steal from the rich and give to the poor? I also believe that when dealing with behaviors that it is best to deal with the issue as it arrives. If the unethical event was not discussed with immediacy with those involved it may be seen as spiteful or at the least the inability to construct a capable argument for the unethical behavior in retrospect. We are all adults and as adults I do not feel we should not be reprimanded in a public setting for the unethical actions of a few.

Immediately comes to mind if the unethical behavior that have propelled our country into war with a country that has nothing and threatens the whole
world. A country that has become something it was not because someone personal agenda would not be complete without being unethical. If one really does lead from the top this unethical behavior may have translated into the treatment of detainees by US soldiers. We also have seen instances of athletes portraying what they are not in the use of steroids and other performance enhancing treatments. Yes, unethical behavior is bad, but as long as the academic environment continues to place the amount of pressure it does on students, things are bound to burst or leak at the seems.

2)
This Sucks!

Who was the cheater? This is intolerable. They are making me doing extra homework assignment. This is definitely sucks.

I can see a bad future for Georgia Tech engineers if Georgia Tech staffs don’t do something different. I know engineering ethics is important. But I’m not going to address it in this writing because I know it’s not going to change people do things. What Im going to talk about is why do people cheat and how can we prevent cheating?

I think it all started a few years ago when Georgia Tech caught a whole bunch of student cheating on Computer Science assignment. A lot of the staff did not handle the situation right. They were more lenient toward student for later semester. They started to let student work together on assignments afterward. The policy was that if you work with somebody then you put that person name down along with your name. The CS staff allowed student to do this. Then a lot of ECE staff also allowed this. Do you know what this policy does? I think it promotes student to depend on other student to do the work for them. What does it cause? Well….If people don’t do their own work for a long time. They are going to fall behind. It’s going to accumulate from semesters to semester because people don’t have the basics. Student standard falls overtime, however the professor standard stays the same. Student can’t do the test because they can’t catch up. This causes them to fail. And what do people do if they are too doomed? They cheat.

So what I recommend is that you should encourage other professor to teach student the way they taught student back then. Don’t let student work together because they gonna work together anyway. There is no need to explicitly allowing student to work together. At least if they were going to work together, they are going to read over they the work and try to put it in their own word. You have to raise the standard back to the way it was. I would hate to see Georgia Tech to be on the bottom of that US Ranking list. I also think similar to you. I don’t want my degree to worth crap after I graduated. If Georgia Tech don’t train engineers good, then there is no way Georgia Tech can produced good engineers. Also I think that if staffs don’t change the way they teach, Georgia Tech is probably going to the bottom list in a few years. Check this statement a few years later and see if it is correct or not…
Specifically for ECE3040, I think that you can prevent cheating by assigning regular weekly hw. Spread the problem out. Don’t give student too many problems so that they can’t handle because it’s gonna force them to copy from another student. Don’t delay the due date because people always wait till the last minute. You want to put information into their head information each week—rather than the last minutes. If student feel confident, they are not going to cheat.

Why is being honest important to society? Because if everyone cheat then this world would be a mess. The US wouldn’t be the top country anymore if everyone cheats. The US is going to be one of those third world communist countries if everyone cheats. America is so great because there are equal opportunities for everyone. And you are right! I don’t want anybody to cheat on my opportunity.

By the way, I think Georgia Tech Honor Code is useless because it doesn’t really teach people what they have to do. It’s forcing student to sign document that they don’t even read. Professors not only need to teach student engineering, but they also have to teach student ethics. Professors need to remind student from time to time because they gonna forget. They have to go deep into student mind and teach them why they should not cheat (I think you do a very good job on this).

3) Engineering ethics is important to the society as a whole because without it, a lot of disasters may happen. For example, if a bioengineer cheats on his latest product from the laboratory, it may cause the deaths of the patients; if a civil engineering cheats on his bridge project, it may cause the collapse of the bridge and cost hundreds people’s lives; if a computer engineering cheats on building the information security network of the company, it may cost millions of dollars to fix later on. Therefore, being honest in engineering field is crucial to the society.

The engineering students should be held to a high ethical standard for the reason being that we are the future of the society, and if we are not honest in what we are doing, it’s going to make a larger impact than the average people. Besides, engineering is about discipline. It’s not like history or arts that can be twisted around. If the company doesn’t have strict discipline, it can’t produce high-quality product. We, as engineering students, should always set high ethical standard for ourselves so in the near future, we can serve the society better.

Cheating on exam is a severe violation to the honor code. Exams are major representation for the performance in the course. First of all, if you cheat on the exam, you are cheating yourself since you have lost your dignity as a person; Second, it’s going to be unfair for other people who work hard for this exam; Also, you give other people including instructor a false impression that you have mastered the material; finally, it’s going to have a bad impact to your life in the long run. People who cheat tend to cheat again, and people who cheat on the exam also tend to cheat on other aspects. Another point I want to
make here is that when we see a cheating in exam, we have the responsibility to report it, since if we don’t do it, it suggests that we have given him the permission to cheat, which violates the honor code also. In the real life, when we work in a company, we also have to report the misconduct of the other people if we see it, otherwise, it could cost the company or the society a whole lot than we expected.

In every society, corruption and unethical behavior can be found. For example, recently in Thailand, the premier has gained millions of dollars by manipulating the tax laws; in 2002, the accounting scandals happened on Enron and Worldcom are still impacting the society in many ways. Now a lot of people in Thailand are asking the premier to resume; in US, many employees and stockholders haven’t recovered from the bankruptcy of Enron and Worldcom, and people have lost confidence in the financial statements of the companies. Therefore, Countries must also preserve the independence and effectiveness of the judiciary to punish corrupt actions and unethical behavior. In theory, the less the unethical behavior, the more advanced the society.

At last, I want to suggest that if there are many students involved in the violation of the honor code, other students may deserve a retest.

4) Engineering Ethics

In today’s society a lot of responsibility falls on the shoulders of engineers. From designing buildings and bridges to developing weapons or automobiles, societies around the world trust engineers to make ethical decisions. Unfortunately, there are many unethical people in our world. People lie about how well a product performs, or even get paid to recommend a certain company’s product. On average, an engineer will be responsible for the well being of more people than a doctor. People put their lives in the hands of engineers on a daily basis, and this means that engineers must be held to the highest ethical standards.

Engineering students must be held to this same standard in order for them to learn how to deal with the pressures of the real world. I have no doubt in my mind that each student at Georgia Tech will face situations in which they will have to make decisions solely based upon their ethics. I would like to believe that all of my fellow classmates and I will make wise decisions when confronted with these situations, but unless we instill a strict code of ethics in students’ minds, then I fear that the percentage of those who will make the right decisions will dwindle dramatically.

Every year we hear more and more stories of ethical misconduct. Professional athletes taking performance enhancing drugs, company officials purposefully reporting false earnings… every night we hear these stories on the news, and to be honest it’s incredibly depressing. If we want to improve our society we have to stop babying people who commit acts of ethical misconduct and punish them for their decisions. I would love to be able to say “cheaters never win” and mean it, but a lot of the time our society lets things slide in hopes that the person will learn from their mistakes. Sometimes they do,
but it seems to me that many times they just learn what they can get away with. The growing tolerance for ethical misconduct is completely unacceptable.

If a student is caught cheating on an exam they should be punished severely for their actions. Cheating on exams does more harm to our society than some may believe. For instance, a company may hire a student who cheated over a student who didn’t simply based on grades. In this case the company would have more than likely been better off hiring the student who didn’t cheat. Also, this diminishes the value of a degree from the cheater’s school, as the company will eventually find out that he is a poor engineer, but he will have seemingly done well at his or her school.

One of the most famous recent examples of ethical misconduct would be the fraud surrounding Enron. The chief financial officers of Enron reported false earnings allowing the companies executives to sell their stock at high prices. Once they had sold all of their stock, reports surfaced that the company had lied about their earnings. Many people lost their jobs, their retirement funds, and any stocks that were given to them as payment were practically worthless. The unethical decisions of a few people ruined the lives of hundreds. Now, for a financial officer unethical decisions mean that people lose their valuables; many times for engineers unethical decisions can mean people lose their lives.

5)
An engineer must have a strong ethical character. Someone famous once said, “True character is doing the right thing when no one else is watching.” In this same way our engineers must have a strong character with which to ground their ethical decision-making. Unfortunately I don’t believe this is something that can be taught in a classroom. This responsibility rests in the family structure. Strong characters come from strong role models, lessons learned in responsibility and consequence, and experience with ethical decision-making. These are life values and lessons that can only be taught and learned during long periods of time, usually during childhood and adolescence. If one is never made to take responsibility for his actions a gap will exist in his cause/effect logic. Poor ethical decisions are like a cancer. While they may start small they will feed on success and grow larger as the person is more confident of a lack of consequence for his actions. In this way a man may steal small things from his work, things he assumes to be insignificant (books, office supplies). However, as time goes by he may begin to take larger things (computer parts, tools, lab equipment) assuming that since no consequences occurred from previous theft that he is safe, and that it is “No big deal”. After enough time and success he may find himself stealing things of great value or even stealing money from his company. While this may seem an extreme case, it is the general path along which poor ethical decisions grow. In this same manner cheating on a test in school can lead to cheating and cutting corners on projects in the engineering profession such as taking credit for someone else’s work, ignoring safety regulations, or using a less expensive material or item than what was paid for by a client. This cutting of corners in the engineering profession can have some of the direst consequences of any ethical decisions. Bridges not built to regulation may fall. Airplanes built with improper material may crash. Electrical systems improperly built may cause fires or electrocution to the user. During a period of research such as our where we are
first unlocking tools such as genetics and nanotechnology, ethical guidelines must be first and foremost in our minds. One can only image the havoc a company could cause with these awesome technologies in the name of profit. Because of this our engineers should not only be held to high ethical standards, but to the highest ethical standards of any in our society.

The fact that ethics and engineering are intertwined is often a fact overlooked by current education. While at Georgia Tech we are required to take an “ethics course”. Often this course is no more than a set of case studies of historical or internationally political events, and the use of philosophical theories and ideas given so that student has a chance to decide the whether the course of action was ethical. While this maybe ok for a philosophy or history class, but this process is inept for an ethics course. The major flaw is that the student is given an abstract theory usually based in relative morality with which to judge an impersonal situation. The real goal of these courses should be to give students ethical guidelines and decision-making experience rather than abstract theory. The course should focus on solid moral absolutes rather than relative moral theory. While this may not be a popular idea in our modern society of individual morality, it is the only solid course of action present. Instead of teaching students about Jus War Theory, students should be taught the consequences of engineering catastrophes brought on by ignored regulations and poor ethical decisions. Possibly students should be given tough ethical situations and asked to make decisions in groups or as an individual, and to explain their reason for their decision. The instructor should then (possibly in a role-playing mode) explain consequences that could have occurred because of their decisions. In this way students will gain a key element in ethical character building: ethical decision-making experience. As a follow-up students should then be asked to make more decisions to fix problems or correct situations brought about by their previous decision. In this way the idea of consequence for decisions can be instilled in students.

6) Ethics in Engineering

Ethics in engineering is important, especially in this day and age. An honest invention will yield rewards, but a rip-off will cause lawsuits and court cases. A real engineer is defined by their ability to engineer, not steal other people’s ideas. A person who claims to be an engineer, but merely rips off other people’s work is not an engineer at all. They are no more like corporate spies.

Students should aspire to be honest in school not only because it will ingrain the ethical standards that will see them through their real jobs, but because it will cheapen that value of the degree that they have worked so hard to earn. An engineering degree is not an easy thing to earn, so by acquiring it by false means ultimately hurts not only the value of the degree, but those of all of your classmates. For these reasons, engineering students (as well as all students) should be held to a high ethical standard. In doing so, the school can better assure that its program will stay ranked as highly as it is and do even better in the future.

Exam fraud/cheating is probably the most common means of falsely acquiring a degree. Although any one exam is a mere fraction of a percent of the degree’s worth, it is nevertheless a part of it. Testing, although an inadequate means of telling what a student
fully knows, is the established means of ascertaining the comprehension of the class material. For this reason, unethical testing practices will cause some students to have unfair advantages over others. This can cause the cheating student to “break” the curve and unfairly lower other student’s chances at getting an A in the class. This is theft of a sort since the chance to get an A is stolen from other classmates.

A society in which corruption had become prevalent recently was Iraq. Saddam and his sons killed at a whim, conducted ethnic cleansing, and led a brutal campaign of oppression and lies. His lies to the UN inspectors caused his ultimate downfall. If he had been honest and had cleaned up his wrong practices, then perhaps he would still be in power today. His corruption led to his destruction. Now he is on trial for crimes against humanity and he will likely never be free again. There are very few (if any) ethical societies to speak of anymore. The United States in the early days of the country was characterized by a generally more ethical worldview. This was due to the reverence for God that most people had at the time. The United States has lost that today and has become a humanist state where God is removed from classrooms, court buildings, and society. Corruption was present in the early years of this country as well, but it was not so widespread and accepted as today. God-fearing men went about establishing ethical laws and practices, which over the years have slowly been eroded into the mess that exists today.

It is not a wonder that students find no moral problem with cheating in a society where ethics are relative and there is no standard for morality. Without God’s perfect law, no law will stand. When people are taught that they are merely advanced monkeys and self-image and self-glorification are at the center of society’s focus, then why should anyone expect for ethics to play any role in people’s behavior. Sadly, I do not see this trend turning around. People are becoming more alienated from God and much of the church too is turning from the way as well. The United States is ripe for another Great Awakening, but it will not be so easy anymore.

Until the people of this country and others turn back to God, this type of ethical insubordination will continue. Do not expect it to go away. Without God, there is no reason to expect change to occur in the hearts and minds of the student body. Living a doctrine of self and me, me, me will ultimately result in unethical behavior because the focus is wrong. Live to serve God and good ethics will be a natural outcome. Live to serve self, and bad ethics will be a natural outcome.

7) ECE 3040 – Ethics Assignment:

Ethics in Engineering

I feel that ethics in any activity, more so engineering, is extremely important. Since engineering plays an important role in a technologically dependent society such as ours, it is important that ethics be made a guideline of engineering.

I feel that the main problem that hinders the use of ethics in engineering is one that has to do with the nature of engineering. Engineering is often considered as a major that has no room for ethics. For example, compare engineering with a discipline such as medicine in which lives can be saved or lost with a single misjudgment. It would seem that ethics are more important in medicine than engineering in which most students in the
discipline may feel that mistakes can be made here and there without dire consequences. On the contrary, engineering is responsible for many important scenarios in which lives may be lost. Even in medicine fore-mentioned, many of the instruments and tools used are made by engineers, so what would happen even if ethics is held highly in medicine but some engineer somewhere makes an inaccurate instrument for the unethical choice of cost over accuracy. Therefore, it is obvious that one way or the other, engineers will be involved in many situations in which unethical behavior could cost lives.

Engineering students often argue that ethics is not an issue while in school because none of their work is crucial enough at this stage to be held to a high level of ethics. What such students fail to realize is that if they are allowed to get away with small unethical behaviors; such as cheating and plagiarism; it will greatly influence their ethical behavior when they get involved in more crucial situations. For example, an engineer who got away with falsifying experiment results because he/she did not study for an exam in college from doing the same on an important project just to meet a deadline. I feel that the best way to ensure that engineers of the future are of high ethical standards is to hold engineering students to the highest level of ethics in college.

Cheating is an example of unethical behavior. In fact cheating on an exam does more harm than just question the student’s ethics in future; it even questions his/her knowledge as an engineer. Exams are meant to test the knowledge of the student in the subject matter; therefore cheating presents a false knowledge of the material. As professor Doolittle always says, high scores can get you a job but knowledge keeps the job and gives you a career. Thus, cheating on an exam, while it is a short term solution (that is if the student does not get caught), gives no long term benefit. In fact the student just ends up hurting his/her own chances at a career in engineering because knowledge not grades makes a great engineer.

A saying goes “if you can’t beat them, join them”. Sounds logical but what this saying fails to mention is that if you join them in doing wrong, no write comes out of it. Take corruption for example. A group of people that are corrupt will find that nothing gets done either well or even at all because every one is busy cutting corners to do something because of their own benefits.

Finally, I feel that high ethical standards are important in a college such as Georgia Tech. because we are held in high regards for producing engineers of highest standards. All the knowledge gained at Georgia Tech. would be nothing without good ethics. Therefore, I strongly suggest that Georgia Tech. not loosen its ethical standards because doing such would decrease the value or worth of a Georgia Tech. degree.

8) Engineering Ethics

I don’t really understand all of what is going on within the class that has prompted this assignment in addition to another talk about cheating. Apparently several people cheated on the last test. It was implied that they just passed around pages and filled them out for other students. I didn’t think that this was possible, or at least realistic. I take my tests alone in the testing center due to learning disabilities and am not in the room when the test is given to the class. This means I haven’t actually seen how or who is cheating in the class. This issue was brought up in class as though the whole class had been cheating or
is at least accomplices. I don’t understand the need to accuse the whole class instead of dealing directly with the class. I feel like we are being set up against the cheaters so that we will harass them on our own time. My opinion is that the class should be assumed honest and when individuals are thought not to be they should be quietly dealt with. It is almost as if we are being agitated into a witch hunt. I understand we are being groomed for a competitive workplace, but I don’t see any good reason that we should be set against each other right now.

As I have progressed in my education I have begun noticing people less willing to help others because they are more concerned with keeping people below them in the grading scale and eventually in the field. This is flawed logic because I think what you put out is what you get back. People make friends by being helpful and willing and friends are good for favors. I am not saying that should be the goal but it does work that way. I could be wrong about this but I feel like at several points this class has been purposely encouraged to become rivals or competitors. This moves away from the whole “do your best” concept into the “stay ahead of everyone else.” Not a very noble cause but it is what I have become used to at Tech where there are classes that aren’t normal distributions but massive curves because people are only getting have of the material. I apologies if this seems to tangential but it might be more what I have been thinking about in terms the esteem of which engineers hold each other in our field than the actual ethics assignment. Now it is time to try to pull it all together. I think an important tool for accountability in engineering ethics is comradery. Betrayal of friends is much harder than of enemies. It is fair to say that innovation is fueled by competition. Most people lack the ambition to push themselves without any kind of competition or deadline. This competition doesn’t need to be based upon hatred, cruelty, or revenge. When it is based on this dishonesty is more likely to creep up because rational can more easily be disregarded. Dishonesty has little real effect in the academics except to muck up the rankings, but it can be said otherwise in the working world. Shortcuts and plagiarism can result in safety hazards and failure. It is risky to claim that your work is failsafe and predictable without the full work and knowledge surrounding its development. It is also disrespectful to undercut your competitors by cheating.

The final consideration is self respect and the respect received from others. Beyond safety and success it is important to people how they are viewed and how they feel about their own work. I don’t think that people can thrive and be happy if they know that they aren’t doing right by themselves and to some degree to others. I get frustrated with myself because I know I waste too much time and don’t take my education serious enough. What I can say I am proud of is that I don’t cheat. Even if I get bad grades they are my bad grades. I don’t really consider cheating an option. If I am not cheating I don’t think that I should have to hear all about other people doing it and get the pressure and lectures that I shouldn’t. This all goes back to my agitation with having a big deal made in class and laying a huge guilt trip on everyone. All it is doing is making us distrust each other and cause a riff in the class. I think it is important now that we get along and respect the people that are our peers and soon to be our colleagues. I think it is your goal right now to get us working together and on good terms to form acceptable engineering ethics.
Ethics in Engineering

Ethics in engineering is very important to society. In today’s constant high-demand technology field, engineering projects often involve a large amount of time and money. An engineer may often face the opportunity to take a bribe to accept a project or cut costs by producing a poor design. Additionally, the science of engineering is incredibly difficult and requires an enormous amount of focus and pressure which can tempt both professionals and students to cut corners. For a professional, cutting a corner on a design can result in a fallen bridge or an exploded space ship. A student cheating on an engineering exam is not as life-threatening; however, methods learned as a student carry over into the professional world. Thus, it is absolutely crucial to develop good morals and ethics in college to make a society of professional engineers respectable and trustworthy.

Engineers are absolutely crucial to the well-being of country. National Security, Transportation, and thousands of other fields are completely driven by engineering. A country not producing engineers capable of keeping up or ahead of the global curve will suffer dire consequences. Even with all the money in the world, countries still need strong military power for defense, transportation to ensure a steady economy, and some level of technological independence. The welfare of every country can almost always be directly related to the amount and quality of engineers it produces.

Engineering students should be held to very high ethical standards. Engineering by nature is very difficult and the pressures from a competitive school like Georgia Tech can logically tempt many if not all students at some point during their time here. Many students come to Georgia Tech because of the reputation of the school and the prospect of utilizing one of the many opportunities the school offers. These opportunities only extend as far as the school’s reputation which stems wholly from the engineering students it produces. The only way to maintain this reputation is to produce honest and ethical students. Hence, it is very crucial that Georgia Tech students follow the honor code set forth by the school with the help of the professors. Professors who make it easy for students to cheat are just as responsible as students.

Exam fraud is the most frequent stage for ethical violations as an undergraduate student. Personally, I think not all students benefit from doing weekly homework assignments and that working with others is ok. Thus I think professors should keep homework values low compared to test values when determining grades. Cheating on Exams however is completely unacceptable. This is the only stage with which a student can demonstrate the gained knowledge of the course. I’ve witnessed students in various classes throughout the years seem to know nothing in a course and copy their way to A’s. Exam fraud should be the focus of faculty at Georgia Tech to improve ethics at the school. I think every class I have ever taken could benefit from better monitoring of test taking.

Ethics in engineering is most certainly a critical issue for the US and Georgia Tech specifically. It can be assumed that violations occur on nearly every test taken here. Students are learning ethics at the same time they are learning engineering. Professors at Georgia Tech should feel an obligation to teach students this by simply monitoring tests
more intensely. The benefits may not be immediately realized but will definitely be important for the society of US engineers in the long run.

10) Importance of Engineering Ethics

Listening to stories told by my grandparents about the "good ol' days" has brought to my attention the degradation of morals that has occurred in our society over the past 100 years. Even in my lifetime, language and scenes that were once too risqué for television are now commonplace. Greed and selfishness have seemed to escalate, causing people to shrug off ethical standards for an easy way to make a quick buck. The repercussions of this decline in ethical standards are clearly seen in the news stories today: the fall of Enron due to corrupt management and the fall of WorldCom are just two examples. It is disturbing to think about what the economic, social, and cultural state of this country will be like in the future if the morals and ethical standards of its citizens continue on this downhill spiral that has occurred over the past century.

As technology becomes increasingly ingrained into every aspect of society, the well-being and safety of every user of that technology lies in the hands of the engineers who design it. An engineering mistake could have drastic repercussions that affect the safety or even take the lives of many people. Clearly exactness, truthfulness, and ethical behavior are extremely important in the field of engineering. In engineering, greed and self-interest, which are sparked by a lack of ethics, can result in the serious injury or even death of members of society. For example, if an engineer were to cut the safety features of a vehicle and lie about it to consumers in order to save time or make more money, he could be responsible for the lives of many people.

Truthfulness (such as not claiming another's work and inventions as one's own) is also very important in engineering. The Moore's Law growth of technology depends upon building on the shoulders of giants and incorporating the results and work of many previous engineers, however it does not warrant stealing other's work and claiming it as one's own. If all engineers began stealing the work of others, there would be no incentive for new research and development to take place because the inventors would not be rewarded for their hard work. This would cause the invention of new technology to suddenly cease. Another repercussion is that the "stealer" of the technology does not know nearly as much about the technology as the true developer, and he has a greater chance of misusing the technology or using it in a way that could endanger its users.

Engineering students should be held to high ethical standards so that they will learn the most and so that they will become a trustworthy and dependable future generation of engineers. Holding engineering students to high ethical standards demands that he do his own work and not cheat. Not cheating helps the student to learn the material the best, which makes for a better engineer. Similarly, allowing cheating and plagiarism only encourages a student to do the same when he enters the workforce, which, as mentioned earlier, could have very serious repercussions. Regarding exam fraud, allowing cheating to go unpunished is not fair to the students who studied and did their own work. These students spent the time to learn the material, and though they will be better off in the long run than the cheaters (i.e. they will be better prepared and be better engineers) the short-term unfair gains of the cheaters often overshadow this. Though the
cheaters are in a sense punishing themselves, they should also be further punished so that further cheating is not encouraged. If cheating went unpunished, many students would take advantage of this way to make an easy A, which would produce a new generation of lying, cheating engineers who knew much less about their field than the previous engineers.

A great example of how corruption and unethical behavior has impacted two different societies can be seen by comparing the quality of life in Mexico with the quality of life in the United States. Mexico, which until 2000 had been governed (often unjustly) by the PRI party for 71 years, has a much higher poverty rate, almost non-existent middle class, and much lower standard of living than the United States. Though Mexico held elections during these 71 years, the elections were fraudulent, and PRI rulers ensured that their party always won. Over these years, corruption was rampant throughout Mexico's governing body, and high-ranking government officials often unjustly stole and pocketed large sums of money. As the Mexican people saw how this corruption went unpunished in their governing body, it gave them no incentive to obey laws, regulations, and ethical standards. In contrast with the United States, the standard of living in Mexico has remained very low and the society has advanced at a much slower pace.

In a similar manner, an engineering job is viewed as a high-collar job in the United States, and the actions of engineers serve as role models for many other citizens. If lower-class workers see engineers, who are supposed to be the educated elite, behaving unethically, then this will give them a very good incentive to behave unethically as well. As leaders and role models of this country, engineers should behave ethically so that our country will continue to grow and prosper as it has over the past 250 years.

11) Ethics Assignment

I think engineering ethics is important to a society because it involves the welfare and safety of the public. If an engineer ignore the safety of the public to pursue his experiments, it could results in a major disaster if he is working in a nuclear plant or making a product that is popular among consumer. People could die in explosion or of food poisoning. If an engineer conceals the truth about the dangers of designing a device to his client so that he can clinch the deal. The dangers that he hides from the client may be dangerous to him, the people around him and most of all innocent parties.

Engineering students should be held to a high ethical standard. This is because they are the future engineers. We need engineers in our daily lives. If any of them is unethical in their practices or have low ethical standard, we could be in danger. Engineering students need to know what is right and wrong. They need to know the effects and consequences of the actions they do. They cannot assume that nothing will go “wrong” or everything will be fine. If they have a low ethical standard from the start they were in school, how are they going to provide service to the society in the future?

If there is an exam fraud, the students that are involved in it obviously does not know what impact it caused to the students around them. If those students that cheat in the exam have done well, the student that work so hard but did not get a good grade, he will
feel sad and may have an inclined to cheat. If everyone in the class cheats during exam, they will think it’s ok to cheat because everyone else is cheating. By cheating in exams, we could carry forward our behavior in the working society. That could be in the form of cheating the clients and consumers.

For example, power supply is important in our daily lives. If engineers did a sloppy job in maintaining the power supply and checking the transformers just because he think its all right to just rest for one day or do a poor check so that he can go back early. There could be a problem with the transformers which he failed to spot. This could cause explosions which could hurt other engineers working with him.

Another incident that occurs was in a hospital where doctors draw the blood of patients for their own research. The patient that gave their blood will think it’s for lab check or something else. This is not ethical at all. Patients should be informed of every single procedure that the doctor is doing. They should not be kept in the dark. It’s not ethical of the doctor to even think that it’s their right to do certain things. They should keep a line between personal interest and work. In this case, patients are the victims.

There are many examples such as the Challenger disaster, the Kansas City Hyatt-Regency Hotel walkways collapse, and the Exxon oil spill.

By comparing, corruption and unethical ways have affected many people in many ways. And most of the time, victims are kept in the dark; they do not know what is going on. In the end, they suffer the most. Some may suffer light damage but some may die just because of a poor decision made by an unethical person.

So we should bear the responsibility of every action we do or made. We are not alone in this world. There could be a lot of people who could be affected by the actions we do. They may also follow our actions and this may not end unless we stopped it ourselves. Thus cheating, corruption and other forms of unethical behaviors are not acceptable in this society.

12) Ethics in Engineering

Engineering ethics involves the study of moral issues in engineering and it also looks into moral conduct, character, ideals and relationships of people in the area. The definition of ethics is dependent on the society and culture, and there can be conflicting viewpoints in different societies. Very often, there is just a fine grey line between what is right and wrong, and the standard of ethics can be ambiguous
Engineering ethics is important to a society as poor ethical and moral codes in engineering not only affect the engineering community but also the public. For instance, the tragic result from the explosion of the Reactor No. 4 at the Chernobyl Nuclear Plant showed how great an impact failure to comply with ethical codes can bring about. The group of electrical engineers experimenting with the reactor had knowingly overridden warnings of disaster by shutting down to test run the turbine. Poor ethics and codes in engineering not only pose danger, they can pull down the living standard and condition of the society as engineering is widely used in many areas in today’s society. If engineers do not comply with moral ethics, there could be bribes and corruptions and the standard of work produced will deteriorate. Imagine if civil engineers cut down on the cost in building infrastructure and neglected the safety involved, this could possibly lead to collapse of roads and buildings and people will soon lose trust in the society. Without engineering ethics, I feel that engineering will not be possible. The knowledge will not be able to be brought to full use and society cannot progress technologically and in other areas.

To achieve a high ethical standard, education plays a significant part. Engineering students should be trained during the education process to instill and enforce the ethical standards, and education cannot solely focus on knowledge only. In this increasing global and competitive society, students were pushed to do well in exams to graduate with good honors and get a good job. Many have no time to bother about the area of ethics as it seemed to have no benefits to their grades and career in the short term. Ethics seems to be weak, and almost forgotten. This explains why some students got involved in cheating in exams.

Clearly, these students have done wrong to engineering. However, I do feel that they should be given another chance to get things right. They need to be responsible for what they have done, but what they have done is partly the result of the pressure from the society.

13) Ethics On Engineering

Engineering ethics is important to both society and engineers themselves. I think the main reason is the safety and welfare of the public. The engineers must be able to act and think responsibly so as to ensure that the lives, the property and the environment will not be endangered. Any factors that will endanger the parties involved must be disclosed to them so that prompt actions can be taken. A few cases such as the Space Shuttle Challenger incident has certainly highlighted the above mentioned. Due to economic consideration, political pressures and scheduling backlogs, NASA was anxious to launch
the space shuttle. However, the Space Shuttle was not properly designed. As a result, seven lives were lost.

Engineers should also uphold themselves honorably and lawfully. They must be truthful when addressing public statements so as not to disgrace the reputation of the profession. They should not be involved in any forms of bribery. If they cheat or try to distort or alter the facts from the public, this will corrupt the fundamental trust of the profession. The engineers who are placed in management must also not ignore their own engineering experience or the expertise of their subordinates. They must often be kept up to date of the current engineering practice. Thus, this will ensure that they make the most appropriate decision when dealing with the safety and the involving of the technical matters.

Engineering students should be educated early in terms of ethical issues so that they will be able to understand the importance of being moral in this career. I feel that engineers in the modern days are not being educated enough. We only understand the concepts, theories and the real world application. However, we do not understand the significance of the ethical issues in engineering. Therefore, with a high standard of moral education, engineers will be able to accept all responsibilities given to them, making just decisions to ensure the safety, health and welfare of the public.

Cheating in exams just to get an edge above other people is definitely not ethical. Exams is a test on how well we understand the subject and how we fare in the class or school. If engineering students cheat on exams and get away with it, they will feel that it is ok to do so when they are working in the future. Bribery, forging and distort of truth from the public may eventually occur and adversely affects the code of ethics in engineering society. Thus, cheating and lying in exams should not be allowed and students must be heavily punished if they do so. This will deter the other students from following their footsteps and learn the lesson of the importance of engineering ethics.

When a society is corrupted, people will start to bribe their way through, if they have the resources, to ensure that they live a comfortable life, at the expenses of others who suffer under the hands of corruption. Cases of corruption have been observed in some countries and companies. Certain company, whose main purpose is to provide dialysis for kidney patients, has been asking donations from public so that they can support the heavy cost and maintenance. A few years later, the truth was exposed and they found out that it was the board directors who have been cheating money out of the public. As a result, people lost their trust in this company and stop giving donations, even though the board directors have been convicted and sent to jail. The victim in this case study is not only the public. The kidney patients are the ones who suffer the most after this incident. Given no donations by the public, the kidney patients find it hard to maintain the cost of dialysis. Therefore, the moral of this story is that because of corruption, a lot of people will be involved and suffered in the process.

In conclusion, I feel that engineering students must be able to act and think responsibly. Cheating will get them nowhere in society eventually. I strongly believe that they must be heavily punished. This will make them learn the painful lesson of being moral to themselves, and everyone around them.
14) Ethics in Engineering

Engineering ethics is important to a society. Ethics is the rules and ideals for human behavior. They tell us what we should do and what we should not. The basic principles of engineering ethics include respect for human life and welfare, truth, honesty and trustworthy, fair play, openness, and competence. We will be emphasizing on truth and honesty in this essay.

Practicing engineering ethics actually benefits engineers, their customers and employers. It is critical for an engineer to act for each employer or client as faithful agents or trustees. It is also the engineer’s responsibility to uphold his position to the fullest in taking everything into account before making a critical decision. Ethical and moral decisions often results in severe consequences. Therefore, it is very important for engineers to have a moral obligation to consider the consequences of their choice.

For example, the issue of human cloning has a great impact on the society. Most countries in the world have banned human cloning because of the huge number of social problems it will bring to the society. But there are still a lot of scientists continuing their research on it, and even trying out on humans, despite that it is illegal and not ethical to do so. From this, we can see that the awareness of engineering ethics is very important in a society. Without engineering ethics, engineers and scientists may do things that are not moral and thus cause harm to the welfare of people and the society.

Engineering students are deemed to be future engineers. Therefore, engineering students should also be held to a high ethical standard. Due to the high number of engineering failures, there is an increase in awareness of the importance of engineering ethics. Engineering decisions can impact public health, safety, business practices and politics. Engineers should be aware of moral implications as they make the decisions in the workplace. It is important for engineering students to study on engineering ethics so that they will be aware of the ethical issues when they become future engineers. It helps to develop the ability to think critically and independently about moral issues and to apply this moral thinking to situation to arise in the course of professional engineering practice.

Cheating in an exam violates engineering ethics. It is an act that should not be tolerated. If an engineering student cheats in an exam, there is a high possibility that he or she may do so again in the future when he or she has become an engineer. Cheating in an exam only affects the grades of the people in a class. However, if he or she as an engineer continues to cheat in the future, it will definitely have a much serious impact. For example, the safety aspects of some research does not conform to a certain standard, but because of trying to save some trouble and money, an engineer decides to hide the truth. This may be a threat to the public welfare.

Corruption in Iraq is a very serious problem. Because of corruption, a large proportion of Iraq’s population is living in poverty. Corruption in Iraq affects millions. Saddam Hussein’s embezzlement condemned many thousands of children to death from preventable diseases. Saddam Hussein embezzled close to $1.8 billion from the UN oil-for-food program for his personal gains and also used it to build his palaces, while
children in Iraq are dying from hunger, thirst and malnutrition. Millions are starving in Iraq due to the corruption in the oil-for-food program. In conclusion, I feel that becoming an ethical engineer require one to be an ethical student. It is almost impossible for a student who cheats their way through university to suddenly become an ethical engineer upon graduation. Therefore, it is important to teach students engineering ethics.

15) Engineering Ethics

Engineering ethics are important to our society for a few reasons. Sometimes a human life is on the line, but most other times, it’s the image created for the company you work for. A bad product will reflect poorly upon the company. This may not be a big deal at all if you’re too low in the ranks to remain invisible. But if you’re a manager of some sort, it would be in your best interest to catch these errors. Now let’s say you move out of engineering supervision, and you become a manager-manager. In this case, you’d hope that the engineers working under you had decent ethics, just for your benefit, and the company that’s paying you a pretty handsome salary.

Engineering students should be held up to an ethic standard. Any attempt to create the standard can always be brushed off by whoever feels like it, but at least if they’re caught, the contract is there to hold them up to. I don’t really care if the Academic Agreement, or whatever it’s called, makes anyone better people in the future. But I do care about my already poor GPA, and the fact that I can’t afford it to go much lower. When people collaborate on exams, and come out ahead, it screws me over, and puts me further behind on the curve, or grade cutoff, etc. To be honest though, I don’t mind when people cheat, and do worse then me. Just as long as I go up the curve, or grade cutoff, I’m happy. But yes, students should be held up to an ethical standard, just so they can be punished for cheating, for our benefit as the rest of the class.

The exam doesn’t really figure into the engineering ethics debate heavily. It doesn’t seem like a student cheating on a test will make a huge difference in the real world. If anything, it’ll just disqualify him as a worthwhile engineer, and he’ll end up shafting himself in the future. I don’t see how a person cheating on a test right now will make much of a difference in the future. As far as I know, they won’t have anyone to cheat off of down the road, which will screw them over. I’m just concerned about my current grade, I don’t care how they do down the road.

Asking us to relate poor ethics in a society, and relating them to how they’ve effected people is kind of stretching this essay topic I think. But, let’s say there’s a hypothetical city, A. In city A, the president (all the cities of this nation have presidents), is raised in a school where they’re allowed to harm, shoot, and kill their enemies. Since their school fostered this belief, their leaders will probably turn out the same way. The same goes with GT. If we have no standards, it might make some people think it’s okay to go and cheat, etc. The shoot/kill example is from Latin America, and the School of the Americas (SOA), commonly dubbed (School of Assassins by local population).
16) When I was in 12th grade I had to make a speech about a topic of my choice. I chose the topic of cheating. The title was: “To Cheat or not to Cheat.” It said something along the lines of us all having a fair chance and if I choose to do something that increases my chances of success at the price of risking getting caught, there is nothing wrong with that, since everybody else had the same opportunity. Back then my actions did not seem important enough to me for me to care about the ethical aspect of the issue.

Coming to college I began to feel like I was on the disadvantage side since at this place high grades come not only from hard work but from access to “word.” The more people you know and the better connections you have, the better word you get and if you choose your classes right, you might not have to do much homework or study hard for the tests at all. Even having the right calculator is important. I finally acquired a TI-89 this semester and man is it awesome! Too bad I went through all my math classes solving my own derivatives and integrals. But the thing is, once you get into the real meat and potatoes of things, like we do in this class, no calculator can save you, which I am actually happy about. Just as I am appreciative of the fact that you have all of your old tests on your site. That definitely evens out the playing field, since everybody is given the same chance to study and practice. I know this because I am the type to spend more time on finding a way of not doing the work instead of working, or bringing study groups together. I actually don’t think I should be an engineer; I don’t have the knack for it. I see a future in procurement or something of that sort. But to get there or to some management job, I have to go through the engineering steps first. And that’s where the ethics issue begins to concern me.

If real world engineers acted the same way students do, there would be very little progress in our society. We would be too busy fixing the things that were messed up by the incompetent people who got to their positions the same way some students get through classes, riding the c curve or even worst, cheating. I used to think that people like that don’t get the jobs that matter, and therefore could not cause too much damage to the society, but am noticing more and more that that’s not true. A lot of good jobs go to people who don’t deserve them through connections and etc. What this causes is leeching. Engineers who are not capable of producing anything on their own leach on to those few who actually do know what they are doing and thought cooperation or simply by stealing the designs try to produce something that is usually of second level quality, since they don’t really know how to work with it. This also opens up a hole Pandora’s box of safety issues. So much of the world around is man made, that it does not take a NASA engineer’s mistake to have fatal results, it can be an engineer working for a car company or the gas company or even an electrician. Engineering mistakes can affect way too many lives.

We, ece students, are the next generation of engineers and it is understandable that our behavior now may be used to judge us later as engineers, and therefore cause concerns. I can’t tell yet if the number of people who get a degree and a position is high enough to be dangerous to us. It is definitely high enough to consider outsourcing, like you mentioned being a result of not just cheaper wages, but better quality work. If we want to keep the jobs here, we need to produce better employees than other countries, and part of that is
setting higher standards. GPA seemed to be a good enough standard before but if cheating is so common than GPA can not be trusted. I don’t know if cheating can bring down a society, but I guess it could speed up its deterioration. On the other hand, I do believe in the survival of the fittest. I am just afraid that in now a day’s world, fittest does not mean the brightest, but the most cunning. In that case they will survive, but at our cost.

17) Ethics in Engineering

In all things there is a code or standard that is meant to be upheld. In ever society there are rules by which the people govern themselves; things that are done within these rules are deemed acceptable by the majority. These standards, rules, and laws are all born from an ethical standpoint. In order to gain an advantage over others, some choose to operate outside the governing and ethical laws. When looking at society as a whole, this can occur in the form of cheating someone out of something that is rightfully theirs, stealing, or gaining any kind of unfair advantage. Specifically in the world of engineering it could include cheating, using cheaper but incorrect materials when building a device, or not spending the necessary amount of time on a device when engineering it. In both situations, but especially in engineering, the consequences of this unethical behavior can be costly and may even result in someone getting hurt or possibly killed. It is for these reasons that unethical behavior is not tolerated and should be dealt with seriously.

Engineering covers a wide range of activities. Whether it is building electrical devices, planes, or bridges, wiring buildings, planning roadways, or automotive repair, engineering decisions must be made. Ethical decisions regarding each of these kinds of work must be made continuously throughout the project to ensure the safety of the people that use these things. If an electrical engineering firm that has been contracted to plan the wiring for a hotel decides to cut corners and use materials of lower quality than is the standard in order to increase profits for themselves, that is unethical behavior. If they choose to release unfinished plans in order to meet a deadline, that too is unethical. If the hotel is built using these unfinished or poor plans, there may be great risks to the occupants of the building. For example, a poor quality breaker could result in a power surge that could cause a fire. Not only would the engineering firm be sued, there may be casualties. The risks simply do not justify the potential consequences.

When trying to convey a sense of ethics to a society the key is to start early. The more a person hears about the dangers of doing something and learns to believe them, the less likely they are to do them. This is why children are repeatedly told of the dangers of smoking and drugs into early adulthood. The effect of these "Say No" programs can be seen in the increase of awareness among young people. The same can be said about cheating in the school systems. Cheating is strictly forbidden starting from a child's first classroom. Because the punishment for cheating is so severe (usually a 0 on the assignment) students are disinclined to do it. I believe that the punishment should continue to be severe, because if not, then such behavior will be deemed acceptable by that person and, hence, no longer unethical in their minds. This will carry over into adulthood and into their careers which, as stated before, could be potentially dangerous.
Ethics are most important and come under intense scrutiny in the political arena. Here, more than anywhere else is a sense of ethics important. Political decisions impact how a society is governed. These decisions can either be a result of the current ethical views of a society or can be used to influence the ethical views of a society. When unethical political decisions are made, the bulk of society either rallies against them or accepts them because they seem to be in the best interests of the majority. This can be seen in the history of our own political system. When this continent was first settled, it was done so on another peoples' land. Though the order did not come from an elected body as it would be today, it was still accepted by the settlers because it served in their best interest. After the United States was established, the concept of "Manifest Destiny" drove western settlers toward the Pacific coast and taking the remainder of another peoples' land. Afterwards, in an attempt to right past wrongs, small reservations were set aside for these wronged people to live. Towards the end of the Civil War, the slaves were freed in an attempt to keep the country unified; because of the mindset of the majority of the people at that time, laws were put into effect to ensure that the freed slaves stayed at a large disadvantage. It wasn't until the Civil Rights Movement that these laws were lifted in an attempt to end that unethical behavior.

18) Apparently the definition of ethics is “The rules or standards governing the conduct of a person or the conduct of the members of a profession” (The American Heritage® Stedman's Medical Dictionary). In relation to the profession of engineering these rules become very important as they have a direct impact on society. Engineers design significant portion of the things people use every day, from the bridges we drive on to the cars we drive in. Because of this, engineers must adhere to a strict code of ethics for the safety of all people. It could also slow down the advancement of technology in society. Another reason professional engineers need to be ethically sound is to prevent attacks on other people. Engineers will likely work in an environment not unlike that found in a Dilbert comic strip. The maddening events that take place will be bottled up inside since engineers don’t share their feelings. Eventually this could lead to the person “snapping” in some way. If the person was unethical they may harm other people.

Engineering students should be held to a high ethical standard because unethical activities can give students a comparative advantage over others. My combinatorics professor once told me that he just has numbers for all of the student’s grades and he has to give the registrar letters (A, B, C, etc.) at the end of the semester. To turn his numbers in to letters he chooses his preferred grade distribution (I believe his was around 20% A, 40% B, 30% C, 10% D and F) and hands out the letters accordingly. This leads to academic competition amongst the students. That competition makes college fun and worthwhile. So, if one student is cheating he or she has an unfair advantage over the others and may end up taking up one of those A slots over another student who couldn’t make such high grades because of the restraints of time. This is analogous to cheating in sports. Cheating in sports makes them much less enjoyable for everyone involved. For example, it’s not as fun to watch a Duke basketball because the refs only call fouls on the opposing team. This holds true for cheating in academic sport as well. It is slightly harder for me to be better than everyone else when some of those people are cheating. In
some sense cheating merely increases the challenge and might even make it more enjoyable. Also, assuming the grades are at least as favorable as 90-100 is an A it won’t matter to me too much if a fellow student is cheating. However, I feel as though this would lower the value of my degree since more students would be getting A’s. In conclusion, I would have to say that engineering students should not cheat.

Cheating on exams falsifies the grades of the unethical students and makes them appear to be better qualified for a position than they actually are. That inflation allows the unethical people to get jobs, graduate school acceptance, etc. instead of people who adhered to the honor code. This lowers the overall quality of engineers in the workforce, and thus slows down development of new technologies and products. That is not very good for society. Exam fraud also figures in to the engineering ethics debate because it could become habit. If a student cheats on an exam, why wouldn’t he or she cheat on things later in life? So, it seems like ethics and morals need to be developed at a young age. Unfortunately, people who are in college are beyond this “young age”, so attempts to instill the attributes of a good citizen in them have minimal effect. Furthermore, some of these students may be nihilists, and who’s to say that they are wrong?

In Nazi Germany scientists performed experiments on humans in order to advance their military capabilities. This is very unethical. It led to the deaths of many of the subjects which obviously affected the subjects who died as well as their families and friends. The ethics of discrimination also came in to play but that is beyond the scope of the “ethics in engineering” subject.

19)

Ethics concerning any field of study is a crucial part of creating successful graduates from any university. Ethics in engineering is particularly important because the safety of the public is potentially in danger. Georgia Tech is a well respected university in its field. In particular, Georgia Tech engineering students represent the majority student population and therefore have a large influence in terms of how people view the institution. If Georgia Tech students were known for cheating and cutting corners, then Georgia Tech is viewed as an institution that spawns unreliable engineers. Cheating on an exam is just one small sample of unethical actions that could in turn cause people to frown upon Georgia Tech. Ethical issues are not limited to school however. A real world example of unethical actions can be found in various forms of politics including corruption.

Engineering ethics is an extremely important concept. Engineers should always perform their work to their best ability in order to create the safest and most efficient products. Cutting corners on designs or cheating on exams is not at all an example of one’s best performance. Cheating on exams in college leads to students who graduate with a fake GPA and fake knowledge. For instance if a company hires a student who cheated their way through college, that employee is automatically not suited for that position. In fact, the employer assumes the employee is filled with knowledge in engineering when in fact the employee has very little. This can lead to the creation of unsafe and inefficient products.

The standard for engineering ethics must be held high. One small mistake in a design could cause harm to the public. Even a decimal error could lead to product failure.
An issue such as cheating should be considered a major offense because it is not merely a mistake, but a conscious action to cut corners. The standard today I feel has decreased over the years. Although I wasn't an engineering student decades ago, I can sense the standard today is dropping. Part of the reason for this stems from excessive and increasing pressure placed on students by their parents or peers. Although this is no excuse for the drop in engineering ethics, it is a growing problem that needs a solution. Some students may feel the need to cheat to get by or to please their parents with inflated grades. All in all, these students are just cheating themselves with knowledge.

An example of unethical issues in the real world can be seen in Poland about two years ago. The Polish joined the European Union and became very prosperous in doing so. Export trade skyrocketed which increased the wealth of the nation. This newfound wealth caused the leaders of the nation to become corrupt and bribe the wealthy companies that manufactured the export products. Many of the companies that refused the government's bribe soon went out of business. This newfound wealth diminished with corruption which caused the middle class to nearly disappear and unemployment to rise to nearly twenty percent. Corruption caused one out of every five people to be without a job. This example of corruption shows how detrimental unethical values are to a nation.

Although the previous example is an extreme case, the negative effects of corruption and cheating are apparent. The punishment for the student or students caught cheating I believe should be a zero on the exam. If it is obvious that one person cheated off the other, meaning it wasn't mutual, the person copying off the other's paper should be punished. If the student allowed another to copy off their paper, they should receive the same punishment. However, if the student was unaware of the person copying off their paper, no action should be taken upon them. This punishment should be increased if the person has been caught cheating before. If the accused cheating is true, the students did have an opportunity to confess. I believe that if the students confessed to the cheating, their punishment should be less severe such as a letter grade drop at the end of the semester. Since each exam is worth 20% of one's grade, this essentially cuts the punishment of a zero exam score in half.

20) In society engineers are elevated to a higher expectation level of knowledge. They are the higher authority, to which lay society turns to solve their communal problems. With that, often there are no superior checks and the dependant denizens willingly male themselves vulnerable, trusting in not only engineers' knowledge and experience but more so their ethics. It is unreasonable to expect people from a society to resemble anything but a sampling of the society. The hope and standard should be that only those who are not qualified in competency, but also ethically.

Theory and heuristics are only tools to be implemented at the will of an engineer's decision-making. Just because a person knows what socially acceptable actions should be taken, does not ensure that his or her personal interests aren't the higher priority. In Florida, there are many citizens who depend on bridges to be able to safely travel and most civil engineers working in that field are well educated in developing dependable bridges. Furthermore, it is expected that they all be able to recognize undependable designs. However, if an engineer decides to take short-cuts that jeopardize the integrity of a design, and worse if no other engineer speak out on what he sees, many people could
easily lose their lives. Taking short-cuts is just an example of cheating which is becoming a more and more common behavioral trait, not limited to professionals.

In the academic arena there is the same temptation to cheat for many reasons, yet the reason people cheat is a matter of personal ethics not professional ethics. The Georgia Tech Honor Challenge is no more instilled in the school's students than engineering ethics are instilled in professionals, or political ethics in politicians for that matter. These ethical codes are merely expectations society places on people of authority, power, or privilege, because they willingly vulnerable. The important issue becomes one of personal ethics which are instilled in a person's character early in life. Georgia Tech is in a unique position though. Any institution has the opportunity (and some consider, the responsibility) to filter those whose personal ethics misalign with the code of the professionals they wish to number. It would be remarkable as well as rare to find a parent, for instance, trying to instill the Georgia Tech Honor Challenge in their child's ethics. The more valuable situation occurs when those people who would cheat at the professional level are identified by their ethical decision-making at the academic level. It often seems that many educators pushing their students in hopes of bringing the best out of them. But there is level of challenge that will exceed some student's ethical threshold. Even though this instigates the cheaters into revealing themselves, the threshold is relative and certain people who've never cheated find themselves desperate enough. And further, a smaller minority have the integrity to risk failure. Engineers and student are not separate from society they are a sampling. There will be students, professional, on to politicians who are willing to risk failure and those with their limits. It isn’t a reasonable expectation to encode ethics at a professional or academic level. So as long as society becomes less ethical, those elevated will merely personify the mass. There's only the hope that those who won't live up to societies expectations aren't the ones to whom they are entrusting their society. There is no obliterating crime only hope for effective enforcement. Regardless, the responsibility of instilling personal ethics falls on society in whole, yet trends show, the epidemic behavior should only be expected to get worse.

21) Engineering ethics is attracting increasing interest in engineering universities throughout the world as ethics is the basics to humanity but ethics may sometimes conflicts with ways of doing business or rather making money. Thus it maybe difficult to practise engineering ethics at all times as some may compromise it for their own benefits or as what most would say, for the bigger picture. However I still do feel that engineering ethics is very important to a society as it may have great impact on the safety of the society.

To give an example from the web, XYZ orders 5000 custom made parts from ABC for one of its products. When the order is originally made ABC indicates it will charge $75 per part. This cost is based in part on the cost of materials. After the agreement is completed, but before production of the part begins, ABC engineer Christine Carsten determines that a much less expensive metal alloy can be used while only slightly compromising the integrity of the part. Using the less expensive alloy would cut ABC's costs by $18 a part.
At times, ABC may sell the compromised part to XYZ without actually informing XYZ of the slight compromise of the part. XYZ will then use this compromise part for the building that actually needs the original part. This may result in serious threat for the people or it may even bring danger for the people. There are also many cases, whereby the construction engineers use compromise parts in order to pocket some money into their own pocket, which cause damage to the building as well as danger for the people. Thus engineering ethics is important for welfare of the society.

As the saying goes, what a person becomes depend a lot on how the person was taught. So if an engineering student is not taught to hold high ethical values, he may not practise such values when he goes out to work in the industry: he maybe easily blinded by the monetary benefits. Thus he may commit same mistake as those who forgo values for their own benefits and this in turn may threaten the safety of the society.

I feel that every big crime or criminal who commit serious crimes such as murder or robbery all started out with small crime like theft or maybe even just taking small amount of money from parents without their knowledge. In the same way, exam cheating maybe the beginning of a person’s route to committing more serious things that goes against ethics in future. If a person thinks that cheating is no big deal then in future when he goes out to work, he may also feel that it is not important to uphold engineering ethics. I think this is why exam fraud or exam cheating maybe used as part of the argument in engineering ethics debate.

Corruption or unethical behaviors have impacted people in real ways and this is especially evident in third world countries whereby corruption is more widely evident because in more advanced country, there may be corruption going on but it isn’t that obvious or widely practiced. A third world country such as Myanmar used to be quite a prosperous country when corruption wasn’t that widely practiced. However these days where people of high authority “started the trend” of corruption, many people too started to practise corruption in order to survive in the real world. There are also many people who are suffering due to the corruption that is going on in the country. Many people find it difficult to do business in the country and this in turn affects the economy which results in many cases of unemployment. Students are also being exposed to such corruptions and so when they grow up, they may continue to practise the same way. Thus people will continue to suffer as long as corruption continues in the country.

On the other hand, in a country where corruption is not evident, people do not have to go against their moral values in order to survive. Students or the younger generation are not exposed to corruptions and so there are fewer chances of them committing actions of corruptions. Thus the future too looks brighter for such a society.

Thus I think that values or ethics has to be taught since young and even a small crime is considered a crime.

22) Ethics in Engineering

Ethics, both social and moral are important to engineering in society. Ethics is defined as a set of principles of right conduct. Engineers in today’s society are looked up to as the pioneers of tomorrow’s future. They are role models to younger generations and pave the
path that aspiring youth build their careers upon. I strongly feel that students in engineering should be held to the highest ethical standards. I also feel that any student, not just an engineering student, should be held to the highest ethical standards. As students, we are required to approach our academics honestly and with a true purpose of trying to gain knowledge. By cheating/exam fraud we are defeating the whole purpose of our education. By degrading ourselves and resorting to underhanded methods to try to beat the system, we are only fooling ourselves. In the long run it doesn’t matter how well we performed in class or what our grades were. Eventually what we take away from this institution is the knowledge that has been imparted to us. It is a waste of four years of education to have not learnt any moral values at all. We are not just here for a technical education but for an overall development of our personalities. What we learn in class is not just restricted to the classroom but extends to all aspects of our life. The ethics we learn in the classroom also apply to ethics we carry with ourselves throughout life. Strong moral fiber is reflected throughout all aspects of an individual’s life, whether it is in class, whether is in working in a job or even just dealing with people on a social level. Therefore, I strongly feel that this cheating incident is strongly related to the engineering ethics debate. By cheating in the exam, a person has violated the very trust that exists between teachers and students. By resorting to such inferior levels the person has not only degraded themselves, but has degraded the institution as well. I feel that this essay will leave an indelible mark on the class and it is a lesson we will carry with us throughout our lives. Having grown up in a third world country, I am fully away or the importance of ethics in society and have experienced at first hand, the kind of corruption and evil that breeds from lack of ethical and moral values. The main difference I noticed after coming to the US was the high moral values that everyone carries with them. Strong moral values and beliefs are the key to success in any field. By taking shortcuts and using methods, to ‘defeat the system’, we may experience temporary success but in the end things eventually catch up with you and end up suffering the consequences. Take for example, the incident that took place in our class. Say, the associated individual was able to succeed in his underhanded endeavor, later on in life, whether in another class, in a job interview or even working on the job, the student would have no recollection of what he did in class, because he never really learned anything and just took the quick method to get past the exams. Having been to a boarding school outside the US, I quickly learned the values of having good ethics, for if you showed signs of deviation from acceptable and ethical behavior, you had to pay the consequences accordingly. Honestly, I don’t consider myself a role model for others, nor do I believe that I am an extremely ethical person. Not everyone is perfect. I completely understand with the professor’s disconcert over the incident from class and I strongly feel that by writing this essay, we have all had a chance to reflect upon ourselves and see why we are really here at Tech.

23) 3040 Ethics Essay

Engineering ethics is necessary in any society because society relies so heavily on the field. The reliability of cars, computers, buildings, etc. is absolutely critical to our way of life. Products must be trustworthy for people to be able to use them. By cutting corners via cheap parts, improper testing, etc., inferior products are introduced into society and
result in people getting hurt or just wasting their time. While sometimes it’s okay to cut a corner to push a product out, striving to make higher quality products or better valued products is what our society is built on. Engineering students should be held to the highest ethical standards because its necessary to establish the importance of applying strong principles to their work to ensure that it is of the highest quality. I don’t think that it’s correct for students to make it through school in any other way than hard work because it sets a bar for how they are going to behave from then on. I don’t, however, believe that all the blame should be placed on the students that resort to cheating. Georgia Tech, in particular, is a very cut-throat school and the pressures of performing well can be overwhelming at times. What’s worse about this is that the school realizes it is doing this, is in fact extremely proud of it, and continues to do so regardless. I personally think this is a major contributor to unethical treatment, as I’ve often felt that the way the school treats us is unfair and it tends to make me consider more that it’s okay for me to respond in kind and behave unethically. These problems are not restricted to the schools, however, even in our society we prevalently are shown corruption on the news. Between politics and management of large corporations, we see dishonesty as if it were commonplace in our society. While the responsibility does ultimately sit on the individual, our society has taken a very loose stance on enforcing and teaching ethical behavior. Often times, the small gestures towards behaving ethically, such as the plaques placed in the Georgia Tech classrooms, are seen as a joke because they are such meager attempts to rectify the problem. As far as this problem relates to this course and test taking, in general, it shouldn’t be tolerated in any respect whatsoever. While I can understand the pressures of feeling like you have to, dealing with cheating lightly is the same as accepting it as not being a serious infraction. Even if it’s an admitted problem, I don’t think it should be tolerated in any way whatsoever. Knowing that the punishment for cheating is being kicked out of school is a much greater incentive to keep someone from doing it than knowing that if they come clean when they can get an extremely light punishment, not even failing the course put out a message that cheating can be tolerated and that is not the right message to send to the engineers that might one day be building systems that are extremely expensive or critical to someone’s life. In the end, without putting a significantly greater emphasis on ethical behavior and making it a priority, it can’t be expected for students to want to behave in that way when it has become a commonplace thing and the punishments are never followed through as greatly as they are threatened.

24) Ethics in Engineering

Is ethics in engineering an important part of society? This brings forth the question of what a society thinks is ethical, every culture has a different standard, a different idea of what is ethical. So trying to make the world as a whole take one “universal” set of standards is probably impossible, we can’t even all use the same number system, metric versus English units. But trying to create some sort of standard for the United States could be conceivable, though difficult, and would promote higher quality engineering work. On a personal note I think that any job, regardless of how small carries with it a certain ethical responsibility, especially professions that if say a building collapses
because of poor engineering someone’s head should roll, not literally of course. I believe that someone should be ready and willing to stand behind their work, especially the quality.

Should engineering students be held to a high ethical standard? Yes, I believe that all engineering students should be held to high standards for their work, they are the ones that design roadways, buildings, bridges, aircraft, trains, boats, cars, etc… and if something malfunctions people will die or at the very least be injured. So to that note I think that engineers should be expected to carry out their work to the highest quality possible. But I also think that engineering students should not be held to higher ethical standards than any other major on a college campus, by this I mean that I don’t think that even management majors should not be upheld to those same standards, or a better example would be doctors, what if they were not held to some form of ethical standard?

Does cheating in exams affect the engineering ethics debate? This brings up an interesting topic, also I highly debated one, and on one side you could say that cheating is giving someone an unfair advantage, or you could say that they are utilizing their resources wisely. Personally I don’t think it is fair to the students who are not cheating, especially since your grade is versus the rest of your classmates and thus you are in competition with them, so cheating gives an unfair advantage to those that do. Also cheating brings up the whole moral debate and boils down to what ones morals are, personally I don’t think cheating should be tolerated, but I don’t think it will ever truly stop happening, and not just in schools, but in the real world too. An example of this which I have heard of and which is visually identified is in the car industry. (I am not being racist at this point, merely giving an example that I am familiar with). The Japanese engineering industry has for years been sending engineers to other countries, the example I know of is to BMW, and these engineers will work for a couple years then move back to Japan, taking designs and ideas from the company they worked for. BMW has suffered from this “stealing” and this is visible in the designs of some of the various Honda vehicles that have come out, especially so in the past couple of years I think, with a distinctly similar shape to the two companies vehicles. By using designs from BMW, Honda is able to cut back on the time needed to design and test new cars, thus saving huge amounts of money for them. This is just one example of how Japanese industry has stolen designs from other countries engineering industry.

Compare and contrast societies (real or hypothetical) where corruption and/or unethical behaviors have impacted people in real ways? The BMW, Honda example above is one of these, but it’s not just the Japanese that do things like that, every society has its corrupt and unethical behavior, the real problem being how to stop said behavior. Would raising standards for engineering students help? It might, though honestly I think that no matter how much is done to lower corruption, there will always be some form left, every company wants a faster, cheaper, simpler, easier solution, the problem is that that usually involves cutting corners somewhere, and since large amounts of time are spent in the designing and testing phases that seems to be the ideal place to cut said time out. So to conclude I think that what really needs to happen, if ethical standards are expected to raise, is to do so across the board, every profession, and to promote a higher moral standard for society too, both of which probably will not happen anytime soon in today’s society.
Ethics in Engineering

- *Why or why not engineering ethics is important to a society.*

Engineering ethics is very important to a society since engineers are responsible for a big portion of human welfare. Engineers are well respected not because of their well-pay jobs, but what they do to improve daily life of people. Engineers are working very hard in many different fields such as biomedical engineering, civil engineering, and electrical engineering to make our life easy. Sometimes, devices they develop actually save people’s life for example, medial equipment, and flood control system. Since engineers have a crucial role playing the society, they must have a high ethical standard.

- *Why or why not engineering students should be held to a high ethical standard.*

Not only engineering students but also other students in different programs must hold a high ethical standard. As a student in learning process, he or she is responsible for understanding all the class material. It is true that some students try to pass the class without any understanding of the material by doing things against honor code. It is not fair to other students who try his or her best to take the time to understand the material. Especially, engineering students must have a high ethical standard since they will have more chances of facing many engineering problems relating ethics and human welfare.

- *How does/does not exam fraud/cheating figure into the engineering ethics debate?*

It is more likely engineering students who cheat in school will become unethical engineers. Just like students cheat in the exam, unethical engineers put other honest engineers in unfair situation. Also unethical engineers have more chances of putting public in a danger. For example, unethical engineers might intently make unsafe products in order to make money. By doing so, other honest engineers get blamed. Sometimes, it is true that engineers are forced to make unethical choice such as causing pollution by their managers. I think engineers who did not cheat when they were students have better chance of fight against unethical management since they value their work seriously.

- *Compare and contrast societies (real or hypothetical) where corruption and/or unethical behaviors have impacted people in real ways.*

Copying is a nature of human. For example, babies start learning by copying their parents. By copying their parents, they learn things like how to speak and walk. Just like the babies, engineers often copy other people’s work, eventually make it better. Honest engineers always make sure giving credit to other engineers who initially came up with the ideas. But in reality, it is often true that one engineer copy other engineer’s work without proper action. For example, many auto designers copy other people’s work. That’s why there are many cars with similar bodylines in the market. Because of the similar design, public get confused when it comes to buy a new car. Since it is hard to distinguish what is copying and what is not copying, it is very important that design engineers have a high ethical value. That way, auto design can improve overall.
Modern society, and western civilization in particular, is predicated on an engineering foundation. The homes we live in, the vehicles we drive, the bridges we cross, the lights we read by, and the telephones we communicate with are the products of modern engineering. Our existence as a culture, even our lives and well being, depend on quality engineering. What person in his right mind would fly on a jetliner designed by an unqualified engineer?

Product and corporate liability laws guarantee us the right to reliable and safe products. Companies have an obligation to employ qualified, competent and honest engineers. They will be severely punished in the courts and their very survival will be compromised if they have dishonest or unqualified engineers on their staffs. Since companies hire people based on their academic credentials, it is the Universities that have the ultimate responsibility to ensure that their graduates are properly educated and trained for the tasks ahead. Academic institutions must be vigilant to ensure that cheating does not occur, and will certainly not be tolerated. An academic institution that tolerates cheating or slackers if any kind will lose its accreditation and academic standing in short order. An engineer that bolsters his credentials by fraudulent activity is not only dishonest, but is a threat to society. It is easy enough to make an honest mistake in design work, let alone outright errors due to incompetence. An engineering mistake can result in disaster, both in human and financial terms.

Corporations have an obligation to their shareholders and to the general public to hire the best and brightest engineers they can find. It a disservice to the companies and to the public in general if a dishonest and poorly qualified engineer is hired. It is an even more egregious problem if a better qualified engineer cannot find employment, or be given the job that is rightfully his, because of the fraudulent activities of others. This would drive the best and the brightest right out of the profession. It would be frightening to envision a society where only the worst engineers get the most important jobs.

Examinations are a necessary part of academic life. Aside from being useful tools to rank students, they also provide mental exercise and stimulation. Examinations are an important element in learning and in the development of critical thinking skills. Students who cheat not only pump up their grades but also deny themselves the benefits of this mental stimulation. A baby bird that is “helped” out of its shell when hatched will not develop properly. Similarly, an engineer that resorts to illicit self-help will never develop those cognitive abilities that are necessary to properly “feather one’s bed”. Ultimately, an unqualified engineer will be terminated, if not incarcerated. If incompetent, or convicted of malpractice, and engineer can be held financially responsible for his misdeeds. It makes no sense to risk your career and your financial health by cheating yourself out of your own education.
27) **Ethics Assignment**

Ethical Issues on engineering issues are issues which are often speak of over the years. These issues had since led to the birth of new courses in engineering ethics that observes to educate the future engineers. Thus, it shows how much is ethics important to the society. One such example is the project, funded by the National Science Foundation, to develop material for introducing ethical issues into required undergraduate engineering courses. This shows the importance of the ethical issues in the engineering society of today.

As Engineering gives you the skills of trade which most of the engineers sought after, engineering ethics do play a vital role in the building of the character in you. In short, ethics are important to your engineering designs, thinking, and personal character. Without it, the society may face many problems like example: A young engineer who is caught between his obligations to his company, Z-CORP, and to the public. The center of the controversy has to do with the fact that Z-CORP is discharging arsenic and lead into the city sewer system. This explores the professional issues, such as an engineer's obligations to his company and to the public. Another example is: The Aberdeen Three: In 1989, three engineers working on developing chemical weapons at a U.S. Army facility, the Aberdeen Proving Ground in Maryland, were indicted for a criminal felony. They were tried and convicted for illegally handling, storing and disposing of hazardous wasted in violation of the Resource Conservation and Recovery Act form 1983-1986. This shows the importance of the engineering profession's social and environmental responsibilities, in both legal and moral terms.

The above examples given to us show the importance of engineering ethics in the society. However, if we should think that we hold no responsibilities before becoming fully skilled engineers. This thinking is wrong. The most important period of time to develop ethics is when you are a student. Cheating in an exam is wrong. It shows lack of ethical studies in the person. This is because, cheating shows you are lacking knowledge in the subject u are taking. Thus, even though you may score distinctions in your results, they do not mean anything. You may get a doctorate but you are just an empty nutshell. Worst still, if at any point of time, you may need to make life-concerning decisions which you have no knowledge on, you may cause major disasters to happen. People may die because of your lack of knowledge and insight.

Without the cultivation of engineering ethics when you're a student, you may become corrupted and irresponsible once you become a fully skilled engineer. Like in the example two given above, which shows three corrupted engineers who did not observe public safety. These actions may caused a chemical weapon to be set off which may lead to many innocent life being lost all because of reckless acts done by engineers lacking in ethics.
Therefore, we have shown the importance of ethics in the field of engineering. We should educate our future engineers on the ethic issues so as to prevent mishaps and disasters to happen.

Thus, to conclude, engineer ethics is very important in the upbringing of an engineer. As technology advances at great speed, we are now going to more complicated and dangerous studies in science which all the more needs the presence of ethics in the engineers of today. Reckless actions may bring torture and sadness rather than convenience and improvements. We should start now as it's never too late to start.

28) Engineering Ethics

Cheating. It takes myriad forms, materializes in virtually all areas of life; from a purely moralistic viewpoint, cheating is undeniably a bad thing, yet one must face the dilemma that often the richest and most powerful are those who can cheat the best. And cheating offers easy rewards: it is far simpler to spin lackluster testing in order to quickly get your product onto the market, get your answers to an exam from someone who studied, or cut corners in construction and parley the excesses into a Ferrari. However, one must also consider the negative impact of such behavior, both on the person engaging in it, and more significantly, on the other people it affects.

The influence of engineers’ unethical behavior on society is immediately apparent: the consumer winds up with a shoddy product that, depending on the nature of said product, could potentially result in thousands of deaths. However, even if one’s only motivations are selfish, one finds reasons for adherence to ethical principles, notably getting caught. If one releases a flawed and dangerous product onto the market, this fact will be discovered, and could be traced back to the source, resulting in the destruction of the responsible party’s professional reputation, and even making them liable for the damage, at least, in an ideal world. Sadly, as mentioned previously, life tends to favor cheaters, and the best among them often manage to conceal, spin, and shift blame enough to escape culpability. Ultimately, people seem to cheat because they are better at cheating than the thing at which they are cheating. It would be a gross, nearly criminal
oversimplification to say that this arises from students cheating, thus learning less of the material than the ability to cheat, but that must certainly be considered as a factor.

I would posit that engineering students cheat for one of two reasons: because they understand the material but want a competitive edge, or because they do not (or are unwilling to) understand the material and want to pass anyway. Either way foreshadows problems in the student’s future career. In the case of students who do not understand what they are “learning”, but who pass anyway due to cheating, it creates a snowball effect: next semester’s material, being based upon something they don’t understand, is even more incomprehensible, and thus warrants even more cheating just to get by, which further complicates matters, right up into employment, where sub-par comprehension leads to frequent mistakes and dangerous action taken to cover them up. As for the “good” students, it would imply a massively naïve misunderstanding of human nature to think that the temptation to get ahead through underhanded means would go away as soon as they graduate from college. That pattern will continue into professional life, in the form of underbidding by cutting corners, promising undeliverable results to get contracts, etc.

Although American stories of cheaters who have, for the most part, gotten away with it abound, I would argue that this country is unusually good at exposing and punishing such behavior. Consider the cases of the governments I have heard referred to as “post-communist kleptocracies”, the various former Soviet countries with economies based on bootleg DVDs. These places are essentially based on corruption, the kind of place where one would go to jail because they were late mailing their bribe. One need only look at the standards of living in such places to see how far such practices have gotten them.

Ultimately, I would conclude that ethics are, in fact, essential to the practice of engineering, as well as all other areas of life. I have never been one to moralize, so the definitiveness of this conclusion frankly surprises me, but the consequences of underhanded actions speak for themselves. Of course, there still remains the question of what can truly be done to prevent cheating behavior, as the threat of punishment, short of the Chinese policy of a conviction of taking bribes Friday ending in an execution Saturday, is unlikely to deter human nature from the short-term benefits of cheating. It seems that, like a virus, dishonest patterns continually grow and mutate to survive the latest defenses developed against them.

29) Engineering ethics are extremely important. Without ethics, the whole world would be monkeys throwing their crap at each other. Ethics keeps the honest, honest and holds the dishonest accountable. If ethics were nonexistent, we would live in a society of no new innovations and no BASF. Ethics keeps engineers on their toes, forcing them to further innovation to produce new products.

Part of ethics relates to the idea of copyrights and patents. The whole point of copyrights and patents are to protect intellectual property and keep others from freely using ideas of others that possibly spent countless hours researching and developing an idea. If ethics were not around, people would see a new product, immediately copy it, and resell it at a much higher profit margin due to the decreased cost of research and development. BASF thrives on taking ideas and making them better. Would BASF spend the money and time researching an improvement to an object if they could just easily
copy it and resell it? No they wouldn't because that would be stupid. Now, to uphold these standards requires ethics and ethics begins at the level of wee little children (like leprechauns but real).

To instill the idea of ethics, it needs to start at the level where engineers are being trained. This includes even back to high school. Ethics does not just involve not copying copyrights, but also involves academic integrity. Academic integrity has many different aspects to it. One aspect of academic integrity involves not cheating on exams. Another aspect is being responsible and reporting instances of academic integrity violations. These violations could be seeing another student copying directly off of an exam or passing on information about an exam that you have taken and is being administered to another class. Both instances are academic integrity compromises. These compromises hurt everyone, not just those involved.

During school that instills that a good GPA is required to succeed, other people gaining competitive advantages affects your status in your class and wrongfully inflates their GPAs to make them seem better than you when in fact they are worse than you. Academic integrity is an ideal that should be upheld by all and not just a few. The scale of ethics violations also does not change.

When someone decides to cheat on an exam, they are committing an ethical violation. Is this violation as serious as overlooking a design flaw that could cause harm to other innocent people? Yes, because once you draw a line and say that ethics violations are bad, you can not then further say that one violation isn't as serious as another. A line is a line and once crossed, there is no saying that "Oh, there is another line that you haven't crossed".

Corruption is a form of ethical violations. Corruption plagues us all. It happens and we may not even know it. Corruption is becoming more prevalent because more corrupt officials are being brought to justice. Hopefully, as more light is shined on corruption, it will slowly decline but it will never fully go away. When officials go corrupt, usually rights are infringed upon and people eventually get hurt.

30) Ethics are an extremely important aspect to society. Without ethical practices by engineers, anarchy could proliferate throughout our world. However, ethics seemed to vastly shaped by the contemporary society, and this is its strongest and weakest point. For instance, many believe in a more pacifistic society where peace should be strived for at great lengths. While others say, killing those who might harm us before they have the chance is paramount. Even though neither side can ultimately be considered correct, it still raises an interesting debate. How are ethics truly defined? Are ethics merely a set of rules the a society takes on as a whole, or perhaps something far more personal? It seems that ethics in a society are mainly defined by conveniences. While one engineer might be personally opposed to killing, he might also willingly take a military contract to develop more accurate Patriot Missiles or some other weapon, because the pay is high. Is this truly unethical though? To this person, probably yes; however, to the rest of society as a whole probably not. So should this engineer be considered a horrible person because of conflict between what society expects and his needs. To be honest, it seems that ethics are more like guidelines that
you would hate to be caught breaking, but if you knew you could get away with it, you probably will because you believe everyone else is doing the same. Moving away from engineering slightly and looking at the current state of the music industry's involvement with the Internet, it's easy to see how ethics can sometimes blur as society changes. Are the people downloading music pirates or is the music industry merely being unreasonable. The point is that there really is no right and wrong in many ethical choices, and it's difficult to choose sometimes. While I do believe that engineers should be held to a high standard of ethics, I'm not sure I agree that cheating is completely unethical. All that I hear about cheating from Tech is that it gives some an unfair advantage, and fairness seems very important. And honestly, I can understand that. If the world knew that your school was teeming with cheaters, I'm sure your reputation and funding would be greatly diminished. I'm sure there are much more altruistic reasons for doing, but these are the ones that first come to mind for me. However, while we're picking at unfairness at school, I feel that there are many other problems that are unfair, but no one seems to mind. For instance, half of the text books we use are absolutely atrocious. They are unbelievably cryptic and it's like you're taking another course to simply understand the book. And from what I have heard from decision making process on textbooks, it is completely laughable. Or perhaps the various professors who seem to dislike to teach as much as the students dislike to learn from them. It's deplorable how bad these situations are, but one of the first things I hear every semester is: "If you are caught violating the Honor Code, you will be turned in to the Dean of Students...do not pass go....do not collect $200. In spite of everything I've said, I do think that cheating on an exam is abhorrent, especially the way that the students did it in this course. However, I think that cheating on a smaller scale is okay. I think if a friend gives you the solutions to the homework, that's fine, because come "test time" you'll either have learned the material an alternate way or you'll fail. This is fair to me; however, it's not fair to the Honor Code in many situations, just a difference in a opinions I suppose. However in our academic society, as soon as you cheat you instantly are construed as this miscreant who is without morals and who is untrustworthy. I think this stigma given is somewhat unfair. I recall a report about a reporter who was discovered later to have made up most of his articles. On the face of it, it seems atrocious, but when you really think about, how bad was it really? Given today's media, action and excitement sells papers and to the majority of people it won't make much difference whether or not the stories were legitimate or not. If you look closely back at even Einstein, it seems pretty clear that he copied and stole others' work. My point is that in spite of the fact that Einstein or this reporter was unethical they were still capable of filling their place in society and even if they didn't do it earnestly. In the end, I'm really not quite sure if I completely agree with the way our education system works. I just think that it should be more about free expression of ideas and less about "making the grade."

31) Engineering ethics is important to a society. It is important because people expect accurate work and their lives depend on it. The accurate work can span from something
as insignificant as the magazine rack at a McDonalds all the way up to accurate MOSFETs that go inside pace makers. Here’s an example, say a contractor is building a house and realizes that his work is sub-standard. The day comes for the building to be inspected and the contractor decides he is going to attempt to bribe the inspector because it will be the easier and less expensive fix to his problem. This is the first instance of ethical breakdown. The inspector, who believes he is not being paid enough to do his job, decides to take the bribe and allow the sub-standard house to go on the market. This is the second breakdown of ethics. The day comes when bad weather strains the house and the house fails due to the sub-standard construction. This is the point where bad ethics from the past show themselves in the present which cause the homeowner to go homeless. This is an insignificant example when compared to the whole of society. The significance changes if 50% of the houses built in a society followed this example, then 50% of the society would be homeless. I believe there will always be unethical persons in a society, the way to keep their mistakes from affecting the greater whole is to have them be the ones who make magazine racks for McDonalds. Do not let them make our houses or build our pacemakers, inaccurate results in these disciplines result in the lose of life, but a magazine rack that sits at an angle won’t hurt anybody. This result leads to the problem of keeping unethical people from jobs where ethics is important. The easiest way to not get a job, is to not know how to do the job. If you don’t teach unethical people how to build pacemakers, then the day will never come for them to make an unethical decision that will cost somebody their life. This is why engineering students need to be held to high ethical standards. The student must be forced to be ethical, and if they choose to not be then they shouldn’t be an engineer. This raises another issue, how can you tell if a student is ethical or not. Georgia Tech does have an ethics requirement in order to graduate, but since ethics can be a gray area subject, there isn’t an ethics test that will weed out unethical people. They must be found out through other measures. An unethical person will make unethical decisions and that is how they will be found out. Wait for them to make an unethical decision such as cheating. Someone doesn’t go their entire student life without cheating to finally give in to the desire a year or two from graduating. They have been cheating their entire life and have gotten used to rationalizing the situation and getting away with it. Exams are a big determinant of someone’s ethics; if they are willing to cheat even when they know it is against the rules, they will most likely also bribe an inspector when they know it is against the law. Clear cut ethical issues such as these make it easy to make a decision of either yes or no. This isn’t an example of a gray area ethical question such as reverse engineering. The choice is a simple one to make, cheat or not to cheat, bribe or not to bribe. There probably aren’t many societies that have 50% of the houses fail due to bribery, but there probably are many societies that have 50% of law makers take bribes. I recently saw the movie ‘Lord of War’, which I recommend if you have an open night. In this movie the main character is an illegal arms trafficker, by the way it is based on a true story, who sells and trades everything from guns to helicopters to governments and the rebellions to the governments. Many of the country’s governments he sold to had horrible economies and very low standards of living, such as the middle countries of Africa. The governments were full of corruption, as would be expected if buying weapons from a trafficker and their societies represented this corruption. I know this is an extreme example of corruption in a society, but it is linked to the house example through bribery. I do believe unethical behavior has
different levels associated to it. As people decide to make the wrong decision the levels become stairs.

32) In a society, technological progress is directly related to engineering prowess. That is, societies depend on their engineers to develop and distribute new ideas and apply them to create products and services, which in turn make the society a better place in which to live. In the process of creating these new innovations for their respective societies, engineers must possess a determination – a passion, in some sense – to complete their work in a manner consistent with the statues of hard work and thoroughness imposed by societal norms on these matters. Linked to this mindset is the notion that every engineer should work under the influence of a strong moral fiber which influences every action he or she takes in his or practice. This moral fiber should, ideally, allow the engineer to realize his or her responsibility to create products and services which will work correctly, not to cut corners anywhere, and to consistently be ethically sound. Ethics is crucially important to the practice of engineering in society for many reasons. First and foremost, intellectual property rights must be observed in order for the practice of engineering to even be fruitful. Stealing of others’ intellectual properties will create a standstill in the progress that the fields of engineering drive. Also, when developing new products or technologies to be used by consumers, especially in situations where perfection is an absolute necessity, unethical engineers may cut corners in choosing materials or properly making sure something functions as it should. Such behavior can lead to harm or injury to the consumers which use the products, and this can be easily avoided if the engineer is cautious and morally sound to ensure his or her products are safe and functional.

Students of engineering are the engineers of the future. Because of this, the skills students learn in school when studying to become an engineer transcend into their eventual careers. Since engineers must have a strong moral fiber on which to base their decisions on, this moral fiber should be instilled in engineering students if the students do not possess such ethical standards already. Engineering students should, as engineers in training, learn about ethics in a manner that they can apply to their everyday career lives alongside their training in engineering.

Cheating on exams as an engineering student is just as inexcusable as cheating on the job as a practicing engineer. Although I do believe that cheating on exams is morally and ethically wrong, I also believe that those who commit such acts are still learning and have not fully developed their ethical reasoning skills. Because of this, I believe that punishment for this type of academic dishonesty, for at least the first offense, should not entail getting suspended or expelled from an academic program, but rather further reinforcement of the ethical standards which practicing engineers must abide by in some other fashion – perhaps intensive community service, or something along those lines.

There have been many societies in which ethical standards are not held in high regard by the members of these societies. For example, we can see that some members of the community of New Orleans after the devastation of Hurricane Katrina took it upon themselves to raid houses and businesses of goods and steal whatever little many people there had. This not only slows the relief process, but is detrimental to the rebuilding of the society as a whole. However, societies in which this type of behavior is nonexistent,
or at least very limited, enjoy progress and prosperity for all. The United States, as a whole, has limited crime and corruption, and as a result enjoys prosperity and security. However, some developing countries, and even some more industrialized ones, suffer from moving backwards as a result of the corrupt and unethical people in their societies. Progress is curtailed to the point that these societies sometimes even move backwards as they attempt progress. Unethical behaviors hurt all those members of societies and stems progress so that developing nations never have the chance to become developed, in any sense.

33) According to Wikipedia, a free internet encyclopedia, ethics is "one of the major branches of philosophy attempting to understand the nature of morality and to define what is right and wrong." Everyday people make ethical or unethical decisions depending on their own ethics. One's religion, political views, or upbringing among many things influence the ethics of personal decisions. These decisions can affect all of society and cause others to change their own ethical beliefs regarding certain issues. Today, debates involving ethics, such as criminal justice, politics, business, and academics, maintain the idea of good ethics. If good ethics were not practiced, then it could be very likely that the information I used from Wikipedia on ethics contain wrong, misleading, or plagiarized information. One current issue of ethics that people may not realize is cheating and honesty in academics and engineering. One's gpa, class standing, and ranking to the entire world is based on his academic performance, and cheating and dishonesty can falsely improve his achievements as well as more cheating and dishonesty in his career.

An unethical student hurts everybody. He will receive somebody else's credit and in his career he will hinder a society's advancement. Unethical decisions lead to cheating and later on corruption. If a student cannot master old concepts present in academia, then he will surely not be able to master a new concept in his career – something a qualified person could have done but will not get the chance because it was taken away by the unethical student. This keeps a society from learning something new. Moreover, poor ethics can destroy the reputation of a particular institution, making it not credible to other people. This hurts the cheater as well as everyone else.

A current issue is cheating at Georgia Tech. A leading institution must set an example for the rest of the world to see, and the world wants to see good ethics. One possible (and probably true) scenario is this: A student or group of students cheat on a test in a class where the professor grades on a curve. The cheater(s) receive an inflated grade and the people that actually knew the material receive lower credit. If this process continues throughout an academic career, then the people that actually knew the material will not get good jobs or deserved credit later on. Moreover, current unsolvable problems, perhaps relating to engineering, may not get solved because the less qualified people will be working on it instead of the qualified ones. Once again, this hinders a society's advancement in a certain field all for the personal gain of one individual person.

Now, let's apply ethics to engineering in a real world assuming that poor ethics exists. Companies that follow poor ethics will most likely perform poorer than companies with good ethics. For example, someone is working on a project involving a subject that he cheated on in college. His understanding of the subject will be limited and
he will deliver a lower quality product versus another company building the same thing with a person that did not cheat and fully understood the material. The first company will suffer and the second will prosper. Taking this example more generally, it appears that poor ethics leads to destruction. Enron was a world-leading electric company employing thousands of people and making billions of dollars. However, when it was discovered that corporate fraud sustained the success of the company, it quickly fell apart. In countries with corrupt leadership, citizens may try to overthrow the government in order to improve the country. As long as corruption exists, this process will repeatedly happen.

Cheating in engineering must be eliminated in order to improve the field and to prevent its demise. Engineering students solve world problems not only through math, but through venues such as politics, personal relationships, and even medicine. Thus if poor ethics exists in students that plan move into leadership positions, those poor ethics will follow and spread throughout their work leading to lower quality work or even destruction. At the earliest stage possible, either their ethics must be changed or appropriate action must be taken to contain it, like a disease.

Just give those cheaters a 0.

34) Ethics in Engineering

Ethics in engineering promotes social welfare because the legitimacy of the professional is upheld. All engineers have an obligation responsibility to give the client a product or service that he expects to receive when hiring the engineer. The professional ethics discussed here are the set of standards used by professionals to define how a professional is viewed. If every civil engineer was building less-than-acceptable products, the reputation would follow them. These ethics are different from personal ethics, which is a set of one’s own moral commitments. Virtues characterize a person by habitual actions. Good virtues such as honesty, integrity, and self reliance support good engineering. Therefore, engineering students should be held to high ethical standards in training to simulate the stresses of a real world work scenario.

Engineering students may be given the responsibility to design safety critical devices in the future and their training in school is then directly influential to the social welfare of the people who use that device. It is in some part the responsibility of an instructor to present in a reasonably digestible fashion, the required information or techniques to the engineering student. Cheating on an exam undermines the instructor’s ability to poll the student for retention (unless this whole test thing is just about GPA and trying to set students apart by rank, which is a game not many signed up for).

Suppose an engineer, Chris, was being pressured into completing a project by circumventing a standard engineering code, by his supervisor. The American Society of Civil Engineers (ASCE) propose that engineers, “…uphold and advance the integrity, honor, and dignity of the engineering profession by: 1. using their knowledge and skill for the enhancement of human welfare…,” which would suggest that Chris’ decision, to not support development standards on the
basis of cost savings, is unethical. In this light, he should support the industry standards to, hopefully, enhance the general welfare of the public and sacrifice profit.Chris’ supervisor’s actions seems to show a direct conflict with the ASCE’s code of ethics, citing a specific example, “Engineers should be committed to improving … the quality of life of the general public.” However, this is not to say the code is applicable for every possibly case. A precedent is certainly set by a larger (and potentially more knowledgeable) engineering body, although arriving at a judgment, by applying the code to this case, is only the product of the information available to the analyst. However, the professional codes do provide a decent foundation for the development of ethical case studies. This kind of analysis is done through the work of engineers who generally demonstrate good judgment and have a stake in social welfare. If these studies were to not be held, engineers could be pressured into making bad decisions for themselves, the environment, the public, and their organization. It is the engineer’s responsibility to make these safety critical decisions, and managements responsibility to ensure a good route for the company. That is why good judgment is an important learning object for engineering students who will one day demand a position of responsibility. In an educational environment, high stress levels are imposed on the students and opportunities for unethical decisions, professional or personal, arise. It is not an acid test, but an educational experience for students who make those decisions to correct their judgment before entering a real world scenario.

35) ECE 3040 Ethics Assignment

Engineering ethics is a set of principles of right conduct and a theory or a system of moral values in the major or profession of engineering. Engineering ethics is important to society because principles of right conduct and moral values are good for the society as a whole. Society has many flaws already and part of engineering is to make the living standard of the world better in general. If Engineers were to pay no attention to ethics then the engineer wouldn’t be doing his job very well or might be doing the complete opposite of his job.

An ethical standard in engineering means the presence of academic honesty in all forms of engineering. Engineering students must be held to a high ethical standard in their schools which means that entire engineering student body must adhere to all principles of academic honesty. Engineering students should be held to high ethical standards because to ensure good engineering ethics for the future, the engineers of the future (the students) need to not cheat and be honest in their learning. This is important because the living standard and technology of the future depends on good engineering ethics in the students of today.

Exam fraud is an example of bad engineering ethics for the reasons of a dishonest approach to engineering, the incomplete learning of material, and a precursor to bad test taking skills. In exam fraud there is a dishonest approach to engineering which is not good for engineering ethics. If the student feels like its okay to cheat on a test he won’t learn good engineering ethics by the time he becomes a real engineer and then his work will just be dishonest renditions of other peoples work. This will be detrimental to the living standards in society. Also in exam fraud, the incomplete learning of material will
cause a chain reaction of bad engineering ethics. If the student doesn’t learn the material he will more likely to cheat in the future as well and there will be a snowball effect of the incomplete learning of material. This makes the engineer a bad engineer which will also be detrimental to the living standard of the world in the future. Also in exam fraud is a precursor to bad test taking skills. For an engineering student test-taking skills are very important for his career. If an engineering student doesn’t learn good test taking skills he’ll never get his degree and the world will be deprived of a potential engineer. With fewer engineers in the world it will be a more difficult task to improve the society of the world’s standard of living.

In comparing and contrasting societies where corruption and unethical behavior behaviors have impacted people in real ways you can look at the United States of America and countries like Japan. The United States of America is the most emulated and copied culture of the world. All over the world people copy our cars, clothes, and music and Japan is one of the biggest emulators of these things. The Japanese people have been detrimental to their traditional culture by copying all of the United States’ cars, clothes, and music. If Japan didn’t emulate the United States they would be better off because they would have more of their traditional culture existing in their society today. Such as in automobiles, Japan has emulated the recent big wheel (20”+) pop culture that was started in the United States. If Japan didn’t emulate this they would probably still be using their small economical wheels that they had in the first place. This would be better for society because smaller wheels are lighter and cars that are lighter use less energy to move from point A to point B.

36) Ethics Assignment

In every aspect of life, there are certain standards upheld in order for society to progress forward. From patents to medicine to even sports such as basketball, all require us to strive for a greater good. Such standards may be referred as a code of ethics or an honor code. Without such standards, there would be no incentive to strive forward and invent the next big idea. Things such as our electricity on our homes, computers, space travel, airplanes, cars, could not be possible if there was no incentive to achieve a higher standard of living. Georgia Tech uses the student honor code as a pact between the university and the student. This code puts trust in the student to protect the integrity and prestige of Georgia Tech. In return, their degree will make them very competitive in an already competitive personnel market. When a student chooses to abuse this trust bestowed unto them, they dilute the value of a Tech degree because they are not meeting the high standards that Tech is recognized for. In turn, the more students who abuse this pact of trust, the more diluted the Tech degree will become until it is no more prestigious than a Clemson Engineering Degree. Companies look for tech graduates because they know that those people know their engineering. The edge that a Tech degree gives students in the real world would no longer exist if its students do not uphold such a code. Hence, it is paramount that Georgia Tech students do everything in their power not to cheat in any way, shape, or form in order to protect (from themselves) the very edge that they are trying to obtain over others in the future. Therefore, all engineers, but
specifically Tech students should be held at the highest ethical level of engineering standards and there should be no wiggle room for those who do not abide by such standards.

The importance of ethics in engineering is not just to protect the inventions of others and advancing society, but also for the safety of human life. For example, suppose that a student “gets by” by cheating along several points in his education. Eventually he graduates as an EE and finds a job with an engineering company. There he will be asked to design the lighting and power supply of a facility. By the student cheating his way along his education, he increases the chance of him not remembering or not learning certain key concepts that may ultimately lead to dangerous situations. In this example, the student designs the project and it ends up being inefficient by consuming too much power and may eventually spark and destroy the facility causing thousands of dollars worth in damage as well as potential deaths. All of this because the engineer cheated through his circuit class.

Every student has some standard to uphold, be it personal standards or perhaps scholarship standards such as HOPE. As a student, I understand that there are weeks where you have three tests and you MUST make good grades on all of them in order to pass or maintain HOPE GPA. Then you get to the test and don’t know how to do half of the exam. There is always an urge to look at your neighbors’ paper if anything just to “check answers” because you cannot afford to fail this class. While I understand all of this, I also view this as unacceptable and unethical. If you cheat, it’s because you didn’t learn the material well enough in the first place, and you should not receive the same grade as someone who did learn the material. Also, if you get away with cheating (as it may very well be the case), then you will most likely not go back and to learn why this answer was correct. Therefore, you will not learn the material necessary to be an engineer, and you will enter the workforce with significant holes in your education that may cost you a job or may lead to the deaths of other people because of your poor design.

I would like to point out that the reasons students cheat are short term ones because at the time all they are thinking about is not failing a test and not getting a D or F in the class. Tech is such a demanding school that it is very easy for students to hold their GPA higher than anything including actually learning the material. Maintaining a high GPA eventually becomes such a priority that students forget to actually learn the material so that they can remember it past the next semester. Then, if the cheating students are not caught and punished, they continue cheating and they will not have the education necessary to compete in the real world. Even if they get a job, they will be working with engineers with 15 years experience (guys who clearly know their stuff) and they will be able to figure out that the student really doesn’t know his stuff, Gatech education or not. I must admit that I have gotten a few D’s in my education and they really were horrible for my self esteem as well as my GPA. However, those D’s forced me to retake the class and I can tell you now that I still remember (for the most part) the material covered because it forced me to take another look at it and to work harder to master the material. Sure, I could have cheated and had a higher GPA, but a GPA is meaningless if you do not know your stuff. My father puts it best by saying, “If you leave college the same as you went in, you have wasted four years of your time, degree or not” Besides, a D or F is much better than being expelled from College for cheating on a test. Basically, you must master your trade if you are to do anything with it in life.
Since I relate pretty much everything in my life to basketball, I would like to end with an analogy in reference as to why it is important to have such high ethical standards. Say that you are on a basketball team. Before your game, you will practice plays with the team, work on your endurance by running suicides (sprints up and down the court touching various lines such as both foul lines, baselines, and half court lines), and you should most definitely work on your shooting.

Suppose that you decide to approach but not touch each of the lines during your suicides because you are too tired to go all the way. Or perhaps that you decide to just shoot from half court just for fun. Perhaps then you decide that the plays really are not that important and you’ll just “wing it” when you get out there. Come game time, when you are matched up against another player, one whose coach made him run his suicides all the way and touched the lines and one who practiced diligently practical shots such as lay-ups and free throws, you will be no match for the other player. Because the other player pushed himself all the way and did the same drills as you but did them correctly, and because you cheated yourself by coming up short with your sprints and ultimately wasting your time, you will most likely be grabbing shirts and getting fouls until you foul out of the game. The same is true for you as an engineer. Sure if you cheat here and there you may save yourself and get an A in the short run. However you are handicapping yourself themselves in the long run and you will not have what it takes to correctly solve the problem given. This may ultimately lead to you losing your job, cause deaths in an accident or “miscalculation”, lose your company lots of money in inefficiency or lawsuits, etc. The Georgia Tech Honor code is like coach that forces the players to go all the way to the lines. In other words the Honor code makes the Tech students uphold a high ethical standard and still get their work done correctly. A lot is left up the student as to whether he will follow the code or not. All I can say is that there are students who follow the honor code and those will be the ones that will be better engineers regardless of GPA. At the end, the engineer that is most knowledgeable and not the one with the highest GPA is the one that companies will hire.

37)

**Ethics Assignment**

Engineering field has evolved into so many forms as the society evolves though time. As technology grew more and more complex, the dependence of this huge society of ours on engineers grew deeper too. Therefore, it’s unquestionable that the engineers abide by some ethical rules and regulations to fulfill their tasks. Engineering ethics is important to a society since it leads to corruption, discrimination, and finally to a divided and weakened society. Engineers should be held highly responsible for their decisions regarding ethical matters.

As future engineers, engineering students should start practicing engineering ethics while they are in school. They should be familiar with what is expected from them and what is not. As the saying goes “experience is the best teacher” students should be held as responsible as practicing engineers in their ethical decisions. And also since it’s easy to kill a tiger while it’s a baby, it’s really easy to teach students how to be good engineers with strong ethical backgrounds.
As part of their lives, students take exams. Some study hard and some don’t. In order to pass their tests, some students do whatever they can such as cheating from someone and using electronic resources while taking a test. First of all, by cheating and passing a test is not going to help a student to be an efficient and knowledgeable engineer in the real world. Passing tests and getting good grades might get an engineer his first job, but that’s it. I do believe that if a person can cheat on a test, he or she can also cheat from someone’s work in the work force. It’s a sign of moral degradation and less self-esteem. I do believe that there’s no such hard subject or test, it’s only a matter of preparing oneself. If it’s hard for me to learn something new, what about the people who first thought about it and came up with the theory and calculations in the first place? Therefore, cheating on exams should be considered a serious threat to the engineering field.

To give an example as to what engineering ethics can do to a society, it’s enough to have a look at the society I grew up. Civil engineers are given project based on their experience and capital. But that’s just on papers. They are given based on their ethnic backgrounds and their willingness to share their profit with the management people of the project. This procedure made such a huge negative impact on the economy of the country. But here in America, things are a little different. I used to work for a construction company and we used to openly bid for projects. Everything used to be done openly when all company representatives were present. We had won some and also lost some projects. I am not saying there’s no corruption here, but at least it’s not as severe as where I came from and also it’s not visible. In a nutshell, engineering ethics and engineering fields should be considered of equal importance. Schools should do whatever necessary to educate the students to be engineers of strong ethical background in the future.

38)

Ethics Paper

Engineering ethics is important in a society. Engineers hold the duty to protect the public, limit professional service only to his/her areas of expertise, and to have an unbiased heuristic whether paid or not. All three of these categories effect society. By not up holding the duty to protect the public we began to take short cuts in the name of money and personal gain. Often times to protect the public creates a conflict of interest to the engineer if his code of ethics are not what they should. Limiting our professional services only to our area of expertise is important to society because it guarantees work that is sound. Though engineers are well versed in all sciences, and have a tremendous ability to quick grasp an idea or concept, it is important that we stick to what we know, because fields change rapidly and what was acceptable a year ago may change today. It is almost impossible for anyone to keep up with changing times, so it is in our best interest to stay in our expertise. Lastly, having an
unbiased opinion clearly speaks to the need of engineering ethics in society. Influences (to change your point of view, testimony, etc) come in many forms, so when lives are at stake it is very important to the society that their engineers are honorably ethical.

I think engineering students should be held to an ethical standard. I don’t know about high, because I personally get nervous and uneasy when put under a microscope whether I am doing something wrong or not. There is a lot of strain and pressure in this major, the last thing you want is an increased drop out rate because of added unnecessary pressure. However, when it comes to test, you should be graded on what you know and steps should be taken to stop/prevent cheating. **One flaw in the class sizes at Tech is just that, the class size! When a test is given you have no choice but to sit next to someone and this works to the advantage of cheater.** The best way to put an end to cheating at Tech is to space the students because 2 or 3 guys can not what a class of 50 tightly seated students.

Exam cheating figures greatly into ethics of engineers. As I stated earlier, we should be graded on what we individually know. I don’t think cheating is a big issue at Tech because its impossible to make it through these four years and know nothing. I also think there is a difference between someone who comes into a test with the intent to cheat vs someone who was caught up in the moment of temptation. Because of that I think one instance should be a warning and the 2nd should be disciplinary actions (whatever they may be). To answer the question, if you are the first time of cheat I mentioned then cheating to you is a way of life. Meaning if you do it on a test you do it everywhere else in society.

I personally don’t know without solid researching explicit incidents of unethical engineering behaviors. However, I had a professor tell me a story about an architect. This was in my dynamics class, and we were going over structural integrity. Under the vise of pocketing money the engineer use a different truss. It was supposedly just as strong as the one it replaced just cheaper, and it was. However, 2 bolts at each joint were missing out of the cheaper truss design. To make a long story short, the building fell and after a thorough investigation he lost his right to practice as an engineer.
The reason Georgia Tech has the honor code, is to promote strong ethics within the student body, thereby increasing the worth of the Georgia Tech degree. The reason ethics is so important, especially in engineering, is because people's lives depend on it. For instance, with Apollo 13 and the Challenger missions, there were small errors that were made with conversion and inspection. These were probably made because someone was too lazy, or didn't care enough to check. People died in the Challenger crash, and almost died in the Apollo 13 because of some people's ethical mistake of not doing their job thoroughly and correctly.

Here at Tech, students need to be held to a strong ethical standard, because if they aren't taught that here, they definitely won't use it out in the work place after they graduate. Strong ethical standards is one of the most valued features of an engineer, because that means that they work hard, don't skimp, and are worthy of where they have gotten. An example of a non-ethical student is someone who copies homework from other people, cheats on exams through various means, and copies lab results. Doing this defeat the purpose of getting an education. I know people who are almost going to graduate as ECE majors, and barely know more about electrical and computer engineering than I do. This is because they skimmed by in their classes, using the non ethical ways listed above to get them by with good grades. What they didn't realize is that performance outside of tech is solely based on how much you learned, not how good your GPA was. Sure, the high GPA might get you a good first job, but once you've been working for awhile, your employers will realize that your work performance does not reflect your GPA, and will either never promote you, demote you, or even fire you. This will pretty much taint the rest of your career. Personally, I prefer to get bad grades, even if I don't deserve them, because I know that I put forth a strong effort in my classes, and I learned as much as I could on my own, without any crutches.

Exam fraud/cheating is definitely included in the unethical means of getting good grades. All it will do is destroy your career in many ways. If you get caught, it goes on your record and all your employers get to see it. You're pretty much a criminal in the engineering world. You'll be lucky if you get a job. If you do get away with it, it will end up coming back to bite you in the butt. First, it will promote dishonesty, and your morals and standards will lower gradually, since precedently you have cheated, so why not do it again. It worked before. This behavior will carry over to the work place, and even in other aspects of your life. People who are like this sometimes even go to prison, for insider information, fraud, embezzlement, and any other scandals. It's just not worth it.

Societies that support this kind of behavior, or ones that just ignore it, are the ones that aren't doing as well as ones who support and uphold ethical codes like the United States. For the former, corruption, crime, and overall societal decay are present. However, on these countries' defense, it's usually the government's fault. Because of the lack of economic freedom, some people lose their morals and ethics to become successful. This can be applied to communist countries, fascist countries, and even the unites states during prohibition and other times. But ethical decisions can still be made if the country is not affected by the lack of economic freedom. If not, then there are examples out there
that show that the quality of a society is directly affected by the ethical behaviors, and a
society will become more and more impoverished.

So I don't think you have to worry about me cheating. I know the effects of it, and I know
that nothing good can come of it. Even if it would give me a good grade if I
could get away with it, I know that doing so will lessen my degree, as well as every other
Georgia Tech graduate. I think that the people that cheated on this test are three things,
dumb, desperate (not hard to fathom in this class), and unethical. Their loss.

40) Ethics Essay

Ethics, on a whole, is an area on which I feel that persons place less importance
than they need to. Today’s society has shifted the importance from ethics to the result.
It’s no longer important how you got something or somewhere, just that you got it. It’s
always amazed me that a student’s “worth” in college is nearly solely based on his GPA.
Society has placed so much important on results, that students’ ideals become a bit
skewed and they feel that somehow it’s worth it to get the grade anyway they can.

I feel that being ethical is important regardless of what field you are working in.
As such, engineering ethics is important to a society. In today’s society, engineers play a
part in almost every process and in the production of every product that we use. What we
do affects millions of lives. Some may not see it this way, but if we chose to be unethical,
this produces a ripple effect. If we produce a flawed product, or if we use unethical
means to get an unfair advantage, or if we decide that a process would run more
efficiently with a few less employees just to please our employer, then these decisions
affect many others. Many engineers probably do not realize this, or maybe the money that
they are paid is worth it to them. If engineers realized the importance of what they do,
and how their job affects the lives of others, maybe then they would realize how
important ethics is in engineering.

Engineering students, and all students as a whole, need to be held to high ethical
standards. Why not!!!! Why should you get away with cheating when the person sitting
to your right stayed up all night to ensure that they were prepared for this test, or the
person to the left who was sick with the flu and really couldn’t study as well as he wanted
to, but still takes the grade he deserves. Why should you get a better grade than you
deserve. Student ethics has always been a personal issue for me. It really bothers me
when I put the effort in, regardless of my grades, and others cheat their way through a
class. When I fight to keep my GPA above a 3.0 and another student just cheats his way
through every class and has a 3.5. I’ll be overlooked for a job, and he’ll be hired instead,
when in fact I know the material better than he does. It even goes further than that. After
he is hired, and placed into a work environment, when he doesn’t know what he’s doing,
guess what he’ll do. He’ll just cheat again. Believe you me, if you cheat through college,
you’ll cheat through life. This is why we have unethical engineers today. If students are
held to high ethical standards while in school, they may never develop these ethical
standards. Again this has a ripple effect. We need to hold students to these standards so
that they realize the importance of ethics for life.

Exam fraud plays a big part in the engineering ethics debate. Again, if students
cheat their way through a class, or college in general, how will they be able to produce
when they get out into the work place? Unethical students will become unethical workers, and unethical workers will produce flawed products and make unethical decisions in the work place. I feel that exam fraud places an important part in the engineering ethics debate. I know that as a student there must be some gauge against which our progress must be measured. I however feel that at an institution like Georgia Tech, we place so much importance on getting good grades that students will go to any length to get them. I do I no way whatsoever agree with students cheating, but I do feel that the pressure that is placed on students to get good grades, is something that the institution as a whole needs to consider.

I grew up in a third world country in the Caribbean. There the population is only 60,000 and if you don’t somebody personally, then you probably know their aunt, who went to school with you third cousin, who lives in the same village with their sister’s husband. You get my point. It’s a really small town. Growing up, I remember their being one party in power. They were the party in power when we gained our independence in 1981 and remained in power until the 2004 elections. During this time this party used every corrupt mean to get what they wanted. My home country turned into a place where it really didn’t matter what your qualifications were; what matters is who you know, how well you know them, and how much money you’re willing to pay to get what you want. Now you can only imagine what happens in my country. The poor continue to get poorer, the rich continue to get richer, and the best job opportunities all stay in the same families. I’ve experienced first hand what corruption and unethical behavior can do to a society. I’ve experienced living in a society where “free and fair” elections are no longer either free or fair, where the police commissioner and the drug dealer and probably brothers, and where the Prime Minister has been convinced parliament to change the age of consent so that he could marry his 13 year old girlfriend. You may ask why does no one speak up and speak out against this. Well there are two types of people, those who are afraid to lose their jobs if they oppose the corruption and those who just really don’t care. This is how a corrupt society works. On the other hand, there is another island, only an hour away by plane where the corruption seems to hardly exist. Every child who meets the qualifications for university education receives that education free of cost. Every home in the country receives local telephone service free of charge. In this country, the job is given to the man who is most qualified and the drug dealers, they go to jail. I am sure you can see the difference between these two islands. The results of corruption are plain to see. Corrupt societies do not prosper in the long run. Corruption and long-term success do not go hand in hand. If we are to succeed as a society, we need to teach our kids the importance of being ethical beings, regardless of the situation in which they are placed. We need to instill in them the importance of telling the truth, or not passing the blame. Unethical behavior and true success cannot abide together; you must choose one or the other.

41) Ethics in Engineering

The ethics code in general is to be honest based on moral values to not lie, steal or cheat in any way or form. Ethics of societies from past to present always tend to be
violated in some way or fashion. Corruption always tend to come from greed, whether its money or power. There are leaders and there are followers in all societies. As the names suggest followers, people below a higher level official, follow leaders, people with influencing power over others. The higher up the chain ladder that corruption occurs tend to affect society more. It basically shows that violation of ethics is allowed. An example would be corrupted law enforcement officers, committing crimes that they are supposed to enforce people from committing. Other examples of corruption are athletes taking steroids, Enron, Kobe Bryant, OJ Simpson cases and presidents lying. Some are caught and punished where others are caught but get away with it. This is what brings society down from following ethics. Followers tend to follow leaders, in which the quote “an apple does not fall far the tree” is base on. Suppose back in the middle ages a king wants power. The men who work for him have greed for money so they obey his orders no matter if it is morally wrong. They are ordered to take collect money from people who do not obey and kill leaders who have the influence in causing the king to lose power. Corruption from the king has been passed down to his henchmen by stealing money and lives of others. This causes corruption to trickle down towards the bottom. The laziness of people causes the peasants to take the easy way out. Rather than working harder for survival, they tend to lie, steal and cheat to get money and food for an easier life. This relates to society of today including engineering.

Ethics in engineering is very important. It is the back bone of how current life operates in today’s world. It has a direct relationship with the will and determination that drives an engineer to design, develop and invent new products or improve existing ones. Without it, we may still be in the dark ages. Thomas Edison’s invention of the light bulb is very important to how buildings and communities are built businesses operate. His idea was to be able to light up a block at night. Rather than rushing out with the light bulb that lit up but burned out quickly, he was able to develop a light bulb that would last for long periods of time leading to the invention of the vacuum tube. The vacuum tube was important in the invention other products such as computers and televisions. Lighting up a block lead to new ideas of being able to distribute electricity buildings and homes throughout society for use by products. Upholding ethics in engineering, his designing, developing and testing lead to how life is ran today. If ethics in engineering is not upheld, it could lead to violence and death. Devices not working properly, such as a hand held devices could electrocute, overheat and burn or explode causing bodily harm or deaths. It is necessary that students should be uphold to ethics otherwise they will become corrupt. Once a person develops a habit it is very hard to break. If a student does not follow ethics while in school, more than likely the student will not uphold ethics in the future as an engineer. Cheating on an exam is just the start of a student going down the wrong path. Not only is the student, cheating on an exam but he is cheating himself out of learning. This will cause the student to more than likely lack the knowledge to be an effective engineer. Not being very effective and lacking the ability to uphold ethics would lead to defective products that could harm people in general as well as causing legal issues for the company, due to lawsuits people that were affected in some negative way. No matter how high the consequences are stacked against cheating, there will always be a group of people trying to gain an advantage by cheating in some way or form. Just as some athletes take steroids and try to find new ways of not being caught,
there are some students who try to gain the advantage by cheating and coming up with ways to cheat.

42) **Dishonesty and Society**

Engineering ethics is critical to a society, since the technology is playing an ever-increasing role in the lives of the majority of people in the general populace. Technology offers the enhancement of living conditions, but with one implicit condition: that society is able to use it in a responsible way. The same knife that a surgeon uses to heal is used by a murderer to kill. And thus engineers are responsible to make products and technologies that are designed for the betterment of peoples lives, and products that perform proportionally to what is expected of them. A poor engineering construction can forfeit more money than it intended to make, or even lead to the injury and death of those whom it intended to serve. The principle of honesty therefore mandates that engineering jobs be performed in the highest integrity conceivable, and that engineers who, through willful negligence, manufacture faulty products be held accountable to the full measure of the standards.

It is transparent that this honesty must be promoted by the very institutions that produce the scientists and engineers that are responsible for creating and regulating the technological fabric of society. This means that they must prohibit plagiarism, cheating, and the sort.

Exam fraud is an obvious violation of the standards of ethics and honesty and yet there exists little doubt that it is nevertheless one of the oldest forms of contravening the code of integrity expected of a member of an academic institution. This does not justify it in any way, but points to the fact that it will probably not be eradicated anytime soon. Personally, I know of countless persons who have been guilty of this offense, and many of these people I do not consider to be, on the whole, dishonest. So in principle it is easy for me to say, these violators should be utterly smashed with the full consequences, but in practice, I would be destroying their academic reputations over something which has unfortunately become the norm in our present society. Rather than a brute use of force—which historically has shown to have little reformatory effects—I propose that these individuals be shown leniency if they are first time offenders, while nevertheless being frightened of the potentially severe consequences to a degree that their fear and gratefulness at being pardoned would fuse to produce a more powerful and desirable effect. I personally have read, that in the field of psychology, it is typically very effective to use the a method whereby one leads another figuratively to the edge of the cliff, and lets him look down to the depths he could fall, while not actually pushing him over. As regards our specific test, I think that it behooves us to have a retest in some form. As a bare minimum, a replacement of the questionable section with another question, i.e. not necessarily a full new test, but rather a partial one. Or else, if time does not permit this, one should count the third test as two tests. In any case, it is evident that the integrity of the test results has been compromised already, and the scores are no longer an indication of the true performance of the class. Just as in any election, when there is great suspicion of voter fraud, the election is nullified. There, it is not a question of how many votes were potentially corrupted. Rather it is the principle that has been violated that is cause enough for a full re-election.
Throughout history, societies in which corruption and fraud have been the norm have become a very real problem for the entire people. Most of the downfalls of the greatest Empires the world has known, namely the Roman and the Persian Empires, owed their disintegration to the corrupting forces of unethical politician who betrayed either the loyalty of the people, or the loyalty of the emperor. Beyond that, one can see that in societies in the current international arena, those that have real problems with corruption are often those whose socioeconomic situation is exceedingly poor. For example, many attribute the various failures of African governments on the corruption of the leaders and officials in those nations. On the other hand, nations, such as America, in which truth is the backbone of social exchange at all strata of society, the situation is entirely conducive to growth and progression.

In any case, as the two most revered texts in all of religion say:
“Lying lips are abomination to the Lord (Bible Pv 12:22)”
“A righteous man hateth lying (Pv 13:5)”
“When it comes to deposits entrusted to them, as well as any agreements they make, [the believers] are trustworthy. (Quran 23:8)”

I think dishonesty is held appalling and loathsome in all of the major and minor world religions.

43) Ethics in Education, Engineering, and Society

When I was little, if I did something wrong my father would punish me, usually with a swift slap on the rear end. After many repetitions of this pavlovian reinforcement I began to develop a basic idea of the meanings of right and wrong. These ideas were further reinforced when I became old enough to attend church. I was raised a god fearing southern Baptist, and as such I pretty much stayed in line for most of my early years for the sole reason of avoiding the wrath of god. As I grew older I began to realize the value of an ethical system. Ethics is a set of rules that allow a group of people to work together for the betterment of the group. Civilization is fragile, and without a system of ethics we would revert to living in caves and natural selection would be the guiding force in our lives. Luckily our ancestors saw fit to move out of the caves they called home and over a couple thousand years created the civilization we have today.

With the advent of commercial technology a new issue arose: what rules govern the production and sale of these new technologies? Should it be acceptable for the local blacksmith to use sub par materials when creating a cart axel that breaks on a dangerous mountain pass killing the riders? As such should it be acceptable for a car manufacturer to install brake lines that it knows will fail after only fifty thousand miles? As a society we deem these actions as unethical because if we allowed these behaviors to continue it would be detrimental to society as a whole. The assumption that the things we buy are safe for use is necessary for the fluid operation of our society.
So how does this concept of ethics apply to education? In order to make safe and reliable technology its creator must have a firm understanding of what it is he is creating. This is where ethics in education comes into play. Educationally speaking, ethics entails the completion of the work required following the rules given by the instructor. This insures that each student is graded fairly and that the evaluation given of the student by the instructor is accurate. Because examinations are generally the only part of the evaluation that is done individually with little to no access to reference materials, it is significantly dependent on the ethics of the test takers. Without ethical standards in education, the evaluation of the student would be meaningless.

There is a problem however, in a society that follows a set of ethical guidelines; it is possible for individuals to ignore those guidelines for significant personal gain. This has been the case throughout history and is still prevalent today, from the monopolies at the end of the 19th century to the Enron and Martha Stewart fiascos of recent years. The problem incidents like these create is that honest people are unable to compete with those who are not so honest. If the competition is cutting cost by using cheaper parts, there are only two options: compromise your morals and use the cheaper parts or go out of business. This leads to a relaxation of the ethical standards. In time these standards continue to decline causing more and more problems. For this reason setting a high ethical standard must start in the educational system. If honest students are forced to cheat just to compete with students who are not so honest, then we have lost the war before it has even begun. Therefore we must not only set a strict ethical standard, we must enforce it, making sure it is clear that those who violate the code will be punished. In this way it no longer becomes advantageous for an individual to cheat.

Despite the importance of a high ethical standard, stating the path is easier than following the path. I got to the point where I realized my parents are not the perfect bastions of morality I considered them to be as a child. In my late teens I lost my religion as I saw the effects politics had in my church. We are brought up believing that good always prevails over evil, then we get to the point where we are intelligent enough to think for ourselves and we realize this is simply untrue. Our government is packed with corruption. An oppressive tax code allows senators to sell tax breaks to industries for a hefty sum, our former president’s indiscretions in the oval office, and we currently have an oil tycoon and a defense contractor running the country and we are in a war in Iraq. Even the Catholic Church, supposedly a bastion of morality, has seen the atrocities committed by its priests. These are the influences we are growing up with, you rarely see someone on the news because of their high moral fiber.

For these reasons it doesn’t surprise me to hear that students are cheating. Personally, I’m here of my own free will. I have no reason to cheat as I can see the pointlessness of such an endeavor. I wouldn’t cheat while I’m working out, lowering the weights I’m lifting or cutting my cardio, as it would nullify the point of the activity. Likewise, cheating in a class serves no purpose. For some students however, the pressure on them to succeed is so great that they are willing to do whatever it takes, regardless of the consequences. If a student is under a lot of pressure from their parents, and its either cheat or fail, cheating is the only option. This is a pressure we generally don’t have in this country so it’s hard to place ones self in their shoes. Regardless of this empathy, I do not condone their actions. The workplace is extremely competitive, and while my skill as an engineer will allow me to advance my career, I need the grades to get into graduate
school and to get a job. Keeping my grades up becomes more difficult if I have to compete with those who would cheat to give themselves an edge. The assumption that I can compete in a fair environment is fundamental to my education and this assumption is only true if honor code violators are dealt with swiftly and strictly.

44) If a person starts cheating on tests in school then it is likely that their unethical habits will follow them to college and later into the workplace. Cheating in itself is wrong, however, it is a much more significant issue in college than in middle or high school. College is a time to learn and prove one's knowledge of the material that that person will be using for the rest of their lives at work. If a person cheats on the test it means that they do not know the material and they probably will not learn it and know it from that time on. Not learning this information will lead to falling behind on any subject and then a likely chance of cheating on future tests where this information is cumulative. When people cheat on a test they are not cheating the system as much as they are cheating their fellow students. Cheaters fix the curve in the class and also give the wrong impression to the professor about the ability of the class. If a professor thinks that the class on average is more intelligent than he or she expects, then the teaching habits may change in the amount of detail, depth, or time that is spent on future subjects. These cheaters will get into the workplace under false pretenses that they are intelligent and are well rounded in their field of work. Their habits of cheating and unethical behavior will probably transfer to the workplace as well. Ethics in engineering workplace are very important to society. If a company or even a person in a company acts unethically and withholds information about the defectiveness of a product for their personal gain, then it very well may lead to serious harm to consumers or workers. Society as a whole expects engineering companies to be ethical, to produce the best, safest products for their users. If this is not the case, society as a whole suffers. Corrupt engineering is like corrupt government. If a few people decide to make a profit by buying cheap parts to make a product instead of buying the safe better parts, and pocket the extra money that would have been spent on the more expensive parts, they only are benefiting themselves and cheating their fellow man. A society cannot function without trust; expecting everyone to be ethical is a natural social factor. When there is corruption in a society, the whole society fails. Corruption makes a few people rich at the expense of everyone else. In some countries judges and cops are paid off by corrupt people to allow them to cheat society and get rich in the process. This makes a country a third world country since a society cannot function with mistrust and corruption. Poor people would get poorer and live in fear while the few corrupt get rich and gain more power. In our society however corruption is looked down upon and punished. Ethics are promoted in our society and when a person buys a product from a company they know that it will be safe and reliable. If cheating is accepted and ignored right now, it will show appalling effects in the society in the future. Hopefully our future generation of engineers is an ethical one that understands these concerns and will do what is best for everyone.

45) The Significance of Academic Integrity
In modern society, the improvement of technology hinges on one thing: profit. Engineers design new buildings, devices, and materials in the hopes of making money for themselves. Monetary compensation tends to inspire and motivate us to produce something that gets the job done, or in most cases, gets the job done better. However, consider the situation where this reward wasn’t promised. In today’s age, where life is hardly a struggle for survival, there wouldn’t be any significant motivation to improve upon a design, or make something completely new.

This situation would be at hand and technology would be years and years behind if engineering ethics were not important to a society. As an American, my intellectual properties are protected through many things such as patents and anti-copyright laws. This protection is integral to America’s economic success. In another country where such liberties aren’t respected, there wouldn’t be as much motivation not only to improve upon technological designs, but also to simply work very hard at all. Ethical behavior is beneficial to societies for this reason, and must be protected and respected at all costs.

For instance, if a scientist is in the middle of some research on which he is spending hundreds of hours, and someone else publishes his work and falsely receives all of the credit, there’d be no incentive to continue the research. Such research may have led to a much more efficient processor, or a 50 percent reduction in pollution. However, the great mind that would develop it would not want to finish it if he wouldn’t get any recognition or money for all of the hard work.

It follows that a society must educate its students on the principles of ethics. The Georgia Institute of Technology is respected as one of the best engineering schools in the country. It got such a reputation for graduating smart, useful, and talented engineers. An engineer who resorts to stealing ideas from another isn’t any of those qualities. Thus, it is important to hold the students to high moral standards in order to protect both the value of our degrees and the reputation of Georgia Tech.

If a student cheats or performs any violation to the honor code while taking an exam, it shows that Georgia Tech is producing a sub-par engineer. Should a situation arise where cheating is being noticed on an exam, action should be taken to keep the student in line, or in a worst case scenario, eject the student from the class or institution. A student who shows interest in stealing from someone else’s efforts will be just as compelled to do the same thing after graduation in the real world. This could result in a crime, which can easily link back to Georgia Tech, and make every graduate appear that less professional.

An interest in another engineer’s thoughts should not be considered to be a bad thing in all situations. A collaboration on homework or a project can produce work of a higher quality or in a shorter amount of time. More than one engineer working towards the same goal can be quite efficient.

However, in order to receive the full benefits of an education and in order to uphold the standards of a respected institution, each student must present only his own knowledge in any situation where he is evaluated; otherwise, his progress is incorrectly determined and any achievements are misrepresented. Thus, in the end, a student breaking the honor code not only cheats himself, but also his instructor, his fellow students, and the school of which he is a representative.
Ethics in Engineering

Engineering ethics is very important to a society. Engineering students in college should learn the significance of holding a high ethical during their academic year and perform it in your career year effectively. College is the most important place to mature the new generations of engineer. The exam fraud or cheating figure should be one of the most main topics of engineering ethics debate. In the engineering industry, corruption and unethical behaviors have significantly impacted people in several different real ways. It is important for students to completely understand the engineering ethics in their academic year.

Engineering ethics is important in maintaining the balance and operations of engineering industry and even the whole society, represented as laws or rules in the society. If the people fail to obey these rules, the society is going to collapse. Therefore, everyone should obey it in order to for the society to point to the positive direction, to develop, and to progress. It is true that all the development which benefits the society is built based on the engineering ethics.

Engineering ethics is the most fundamental part of engineering knowledge of what the student must learn in college. The engineering students will be definitely the new generations of engineering in society. Teaching and holding them to have a high ethical standard is important to the society. What they currently learn now is what they will use in the career year. What the society really need is to have positive future engineer to develop the inventions ethically to benefit the society, but not negative engineer to destroy the society. Holding them to a high ethical standard is equal to training them in the most practical and effective way.

All the exam in the college is really a test or evaluation of what the students have learned throughout the courses. The result is an approximation how much engineering skills and knowledge the student can use in their career. The exam fraud or cheating can significantly affect the normal operation of this evaluation. For this reason, the exam fraud or cheating figure should be figured into engineering ethics debate and even one of the most topics. It is essential to develop the effective way from the debates to prevent the exam fraud or cheating, and also to turn a cheating student to an excellent student.

Corruption and unethical behaviors have significantly impacted people in several different real ways in the engineering industry. In the hypothetical way, the corruption and unethical behaviors will decrease people’s motivation to put the effort to make the new development. In the real way, it will prevent to the society to advance, improve, progress.

All in all, engineering ethics is very important to a society. Engineering students in college should learn the significance of holding a high ethical during their academic year and perform it in your career year effectively.
47) Ethics in Engineering

Ethics in the field of Engineering is an important topic in the modern world. Violation of simple ethical standards can have great impact on an individual, a small group, or even the international community. However, at the same time, sometimes it affects no one. The question at hand is how vital ethics truly are in engineering. The simple answer is that if ethics could freely be ignored, then the problem would run rampant, so it is important to maintain a certain standard of quality and workmanship.

Ethics is something that a person develops through his life, so early onset of good ethical practices can be very important. It may be cliché, but when a student cheats in a course, he is really just cheating himself. If he does not learn the material, it’s only going to screw him over later as a student or in his career and force him to cheat again to keep his head above water. He’s not just cheating himself though; he’s also cheating his colleagues and society as a whole. If he never learns an engineering concept, it will affect his work later in life and his work could easily affect hundreds or even millions of people. Also, if caught cheating, he could soil the good name of his fellow students and his university. The topic of reporting someone that is seen cheating is a tough one. Turning the person in is clearly the ethical thing to do, as it stops his unethical behavior, but I disagree with the argument often given by professors and faculty that I am directly affected by a fellow student cheating. Regardless of what others do, I will achieve the grade that I deserve. A curve is a bonus offered by professors and while I certainly don’t mind receiving one, I won’t feel cheated if I don’t get it. Fighting for a few points that someone else got by cheating creates a competitive atmosphere that I don’t want in a classroom. Realistically, I don’t see myself turning someone in, especially if that someone is female. After all, I’m certainly not going to actively hurt the ratio.

Outside of the academic field, ethics play a key role in the function of society. The most obvious correlation is in the safety of products. If a company cuts costs and develops a less safe product, people could be injured or even killed. That is a worst-case scenario, but it does happen more often than it should. There are other fallouts of violating engineering ethical standards besides bodily harm to worry about. Poor engineering in order to save time or money can leave consumers dissatisfied and disgruntled with the company and possibly some technology in general. Should any of these occurrences happen too often, consumers could lose trust in engineering, just as people could theoretically lose trust in a government after a series of blatant ethical violations.

This is not all just speculation; it can be seen in the world around us every day. If it were discovered tomorrow that Kyocera was producing cell phones that would develop cancer in their owners to increase profits, the effects would ripple through society. Kyocera would not be the only entity hurt by this news, people around the world would severely cut their cell phone use and an entire industry could crumble. Thousands upon
thousands would lose their jobs and mobile communications research would be hurt tremendously, all because of one company deciding to cut corners.

Perhaps though, ethics in engineering is nothing to fret over. Without ethics in engineering, there would be no trust in engineering. Without trust in engineering, there would be no money in engineering. And without money in engineering, there would be no reason to violate the ethics of engineering. Should engineering ethics ever get out of control; the problem will simply correct itself.

48) Ethics in Engineering

The main reasons I believe honesty and integrity are important is that these two ideals in the end lead to long term happiness for oneself and more importantly for the ones around you. A clean conscience and an enjoyment of the product of ones own hands can lead to a joyful and meaningful long life. These are mainly just the personal advantages of a life lived for the good of oneself and more importantly others. Morality and ethics are not properly differentiated in the mind of the author so they will be treated as the same concept of doing good and being virtuous for the remainder of the paper.

If one does not follow a code of ethics, there can be serious repercussions for the environment around you and even yourself. As stated in class there can be problems with customers in having caused them damage because of deceptive marketing and lazy or corrupt work. The decreased morale of the customers could then cause them to behave similarly which could yield a temporary domino effect of a decrease in morale and deception. This would be temporary and most likely within a small radius within a network, but if enough people are unethical there can be serious tears in the moral fiber of a society.

In industries such as aviation, other automobiles, and hospital equipment, a disregard for ethics can even cause serious physical damage to those that are dependant on said equipment. Each event where there is physical damage to a person can cause serious depressions in morale that surrounds the surrounding community. With this kind of damage the tearing of a nation’s fiber can be disastrous, much more than just deceiving a customer.

So there is this problem of unethical conduct that is causing serious damage in society, even through the world of engineering. What then is the cause of this problem? The answer is not a simple one and can be as complex as one’s world view itself. There is the idea of absolute and relative morality, which is a very blurry issue. On the one hand believers in absolute morality state that all issues are black and white and that there is a universal principal guiding what is right and wrong. On the other hand believers in relativity state that all issues can only be analyzed individually and only man assigns the course of action that must be taken.

It is true that we have been given a certain degree of freedom in how we determine the course of certain aspects of ourselves and the universe. The problem is, however, we’ve grown more and more comfortable with fulfilling our own desires in that we’ve slowly tried to chip away at some basic principals of morality so that we can satisfy ourselves. The balance of relativity in the freedoms we’ve been given and the
keeping of the absolute rules that have been set since the birth of the universe must be kept in order.

Of course there are many that do not believe in any absolute rules, that all life is meaningless, and that the best course of action is to grab at whatever happiness that is within range. At this point only a change in world view can make them truly moral. This is not to say that all those that do not believe in absolute morality are corrupt and unethical. Many who follow this train of thought are much more ethical than I am. However, this idea is only a gateway into other train of thoughts and is a general indicator of which way a person is headed morally. The only thing to do is follow the rules that if broken hurt our conscience.

49) Engineering Ethics

In the World we live today technology is becoming a larger part of our day, engineers are contributing into making each task easier to accomplish, they are having more responsibilities on how the World will turn in the future. These are not news; engineers have always been shaping the world. Bombs, cars, guns, computers, etc all of these inventions were done or contributed by engineers.

We, as engineering students, are acquiring new skills that will enable us to function in society holding big responsibilities. Acquiring these skills will give us power to create or improve devices that can either help us in our daily life tasks, or contribute to human destruction. All engineers must have ethic values that enable them to distinguish what projects should be done and which ones shouldn’t.

I believe that any engineer that helps building a bomb that could destroy the entire planet, or at least part of it, or any of type of destructive device, has no ethics. I don’t think that anyone with moral values could do such thing, and an engineer should never help with those types of activities.

Engineering students should be held to high ethical standards because we are going to be the future of a society that is going to relay on us, on making good decisions on what is to be done or not. Again, ethics in a person should dictate how they can use their skills in a manner were they can benefit society.

Engineering students, or any other students, shouldn’t cheat in any type of student activity. Exams are done to measure the level of knowledge and comprehension on the material on each student. A grade only demonstrates the level of comprehension on the material in the class, and will also tell the student if he or she needs to put more effort and time on the class. A bad grade only indicates that more effort is to be done. Any student trying to get a good grade without doing any type of effort is lying to himself, because he is not acquiring the knowledge he or she is supposed to have. And will also be lying to his instructor and fellow students. It’s not fair to anyone if someone gets credit from someone else’s work. It’s unethical and as an engineer, whose knowledge acquired in school will enable them to function in society as one, will only promote a mediocre life and a mediocre society.
I grew up most of my life in Guatemala. While studying High School over there I could realize that most students were mediocre in their studies, and that that attitude goes beyond the classroom. In most colleges over there a mediocre life is acceptable. Having a mediocre education and growing in that type of society will only create an atmosphere of life where everything is only done to a certain extent of quality. Guatemala is full of problems, security, corruption, education and many others. One of the many roots of these problems is that people in the government, which are the ones supposed to help the unfortunate, grow up in a mediocre atmosphere with no feeling of improvement at all. A corrupt and mediocre government will only translate in a country were lack of opportunity forces people to go look for a better life somewhere else.

People that don’t have ethics will most likely not succeed on life. No morals will not only prevent them to succeed on anything they set their mind to, but will also negatively affect people around them.

50) Ethics in Engineering

Ethics in engineering is one of those topics that has not been blown out of proportion by the media in recent years [to the best of my memory]. At the same time I think any engineering college has the responsibility to make their students aware of ethics in the world on engineering. Students must certainly be aware that once they land up with a job after graduation they will be designing/manufacturing products that will be used by the masses and they will be responsible for any bad outcomes of consumers using the product. So where does the question of ethics come in? According to me the greed for money plays a major role. Is it unethical to make a low quality product so as to make more money? There have been countless instances when companies have made design compromises to either save or make more money. Is this unethical? Well that depends on whether the user is adversely affected or not. If such a compromise endangers the safety of the user, then yes I do think the decision was unethical, but otherwise it’s just the company’s goal of making money that led to the decision. But how does all this relate to students cheating during their tests in college? Well the only goal in the mind of the student while cheating is obviously of having a better G.P.A. I don’t think any body is thinking that if he cheats now, he is going to get a higher paying job because of the better GPA. Here money is not the object, GPA is. So the big question is, if someone cheats his way through college, and gets a good job, a job he does not have the qualifications for and does not deserve, then he could possibly land up making poor engineering decisions with dire consequences. This would ruin the name of GT and it would make the degrees of other GT graduates less valuable. Of course none of us want that which is why GT should (and I hope it does) try its best to have the best training for engineers. This most definitely means ensuring a competitive system void of cheating.

On a different note, I don’t think anyone can cheat their way through 4 years of college. It’s usually just that one hard question on the tests in that one
hard class [e.g. ECE 3040. He still knows the remaining 75% of the material. Of course cheating is still unethical, but I don’t think this same person is going to join NASA [for example] and be solely responsible for the death of 7 astronauts. If something like that did happen I would blame NASAs system and not only the engineer. This example is comparable to a case in which too many undeserving engineers graduate from a college that’s not strict enough with its cheating regulations.

I also think people who do not cheat should not get angry about people who do. The person, who did cheat might land up getting a better job than you did, but the minute he makes that poor engineering decision, guess who still has a job and guess who doesn’t. It’s true that the only person being cheated is the cheater himself. As Dr Doolittle said [and the far less famous Buddha], things tend to average out over time. In the end the better engineers will get the best jobs. I think the system we have at GT is fine, otherwise we would not be on the top 5 list of the best engineering colleges in the country.

51) Engineering ethics, along with ethics in general, is important in a society. It keeps the system functioning effectively. If engineering ethics were not implemented, corruption would occur. Ethics is defined by the Merriam-Webster Dictionary as “the discipline dealing with what is good and bad and with moral duty and obligation” and “a set of moral principles or values”. In conjunction with engineering, ethics in that case would be the moral principles or values for an engineering field. For example, a good ethical standard can prevent an engineering design to be faulty or have malicious intentions. For electrical engineering, a product with a design that intentionally sends over 1000 amps of current to the consumer would be bad ethics. If designs in this society followed this unethical principle, the results would be nothing less than catastrophic.

Ethics has to be taught and reemphasized. A general ethical standard should be taught when a person, such as turn all work in on time, be punctual, and follow the 10 commandments. This should not be different in any field of study. Engineering has to have one of the highest ethical standards, because engineering is the backbone of modern technology. If students weren’t able to follow proper ethics, it would not only cause things to be hazardous in our environment, but it would also set a poor example for the next generation of engineers. This would cause generations of ethically poor engineers and faith in specific individuals, companies, universities would be in jeopardy. Just think if the letters in Tech Tower were made of metal, not grounded, and the hot wire frayed and touched the case. The infamous T-stealers would be known more for their unfortunate encounter with the T and the 60ish foot drop to the concrete.

Ethics can have an effect on engineering, even in the classroom. When someone cheats on a test in any form or fashion, it unrightfully gives him or her a score that he or she didn’t earn. Even if the score is still low, it’s a misrepresentation of that person capabilities. Therefore, this person will be graded accordingly and entered into the workforce with the unearned qualifications. In addition, if cheating caused the individual’s grade to be higher than what it would have been, the individuals will be given credentials he or she can’t live up to. Putting a person in the workforce with bad ethics like these will cause serious problems. It is also unethical to cheat because it is
unfair to the individual that is not cheating and righteously doing his or her own work. Cheating requires no skill in the problems on the assignment or test, and the individuals that are doing their own work have to feel protective on their work that was studied for so long.

Aside from engineering ethics, ethics as a whole has major impacts on societies. Unethical values only lead to corruption, and whole countries can suffer from this. There can be societies with great governmental structures, financially stable, and fertile soil; without ethics, these values would not withstand the tests of time. Eventually, there would be no faith in the system and the structure would collapse. Examples of this are apparent in the world. Unethical systems and values like drug traffic, black market, and terrorism are still problems of today’s societies. These actions can causes individuals near such activity to feel unsafe, or have family members take part in these acts. These problems are caused by individuals who choose not follow good ethics. Yet all of these problems in society and as a whole can easily be eliminated. Therefore, it is important for all individuals in any society, in any field of study, and for any action that can take place, to follow a valued and favorable ethics so that all other individuals, society, and the future of humanity can benefit and prosper.

52) Ethics in Engineering

Ethics is a moral standard which governs people’s behavior in society. More specifically it allows people to work and live together, as well as allowing them to achieve a common objective. It is an idea that is so fundamental, that it is also applied when making new laws, policies and even constitutions.

At universities around the world, students are expected to follow an ethical standard specific to them - an ethical standard that allows each student to study and get the benefit as a graduate of the specific university, without undermining the effort of each other. This ethical standard includes not only procedures a research must go through, but also how an individual student should behave in the society as a graduate of the university.

Prohibiting fraud and cheating is another example of what is specified in these ethical standards. Fraud and cheating is an unethical behavior that can undermine the effort of every student in the university as it allows a student misrepresents their ability to the professors and it could result in them giving a passing grade even when the student has not learned the material required. After the student’s graduation, he or she may establish a false reputation of all graduates of the same university. One person’s choice to be unethical has put everyone in the same organization in a disadvantageous situation.

Even though it is very important for everyone to behave ethically, as an organization it is unreasonable to expect everyone to abide by the ethical standard if the system and the environment force individuals into making unethical decisions. For example, it is very important in above example of fraud and cheating, that students are not pressured by unfair amount of workload or abuse by professors for poor grades. Another example is in a government where bribery is common. If a person wants to pass a bill that saves
millions of lives, he or she may be forced to bribe government officials in order to pass the bill, despite the fact that bribery is considered unethical. As a government, it is unreasonable to expect everyone to stop bribery when the system in place demands bribe for any kind of progress.

As an individual, one must strive to follow the ethical standard, while the organization establishing and assessing the ethical standard, must strive to provide a reasonable environment and system where ethical standards can be upheld.

53) The Importance of Ethics in Engineering

While science deals with the abstraction of reality to better understand it, engineering is the direct manipulation of parts of the real world for the greater gain of humanity, either its whole or its parts. As thus, the effects of any errors in the engineering process, be it earnest mistakes or the results of cheating, can create very serious flaws in the objects that people interact with as a fundamental part of their everyday lives. Perhaps the error is minor and mostly harmless, like a toy from a cereal box not quite working properly. But it is also very much possible for the error to pose a huge threat to the safety of hundreds or even thousands of people, such as a faulty bridge or building that is at risk of collapsing. Thus, the potential safety hazards of improper engineering caused are enormous, and any cheating which may induce such errors is no game or laughing matter, but potentially a huge danger. In most cases it would be better to have no engineering at all than faulty engineering; at least that way people will face only need to worry about the dangers posed by nature, without adding to them those added by human hardwork. It is thus imperative that engineers be held to very high standards of ethics, and the greater the position of the engineer, the stricter the code of ethics; after all, the lives of many people are at the mercy of their creations.

For students still training to be engineers, ethics are important as well, though for different reasons. The importance of ethics for these students is twofold: to become accustomed to a high standards of ethics required for engineer work when their receive a job, and to make sure they actually learn the materials needed. Exams and homework may be a more abstract testing of knowledge than real-world engineering tasks, but their integrity is no less important.

Laxing on ethical standards can be a slippery slope, where one shortcut can lead to another. This is a bad habit to develop for a student, but an outright dangerous one for an engineer, on whom far more depends than a GPA. It is crucial for an engineer to develop the necessary personal skills early on: while there is time to learn technical skills on-the-job, no such luxury is afforded for things like discipline, time-management skills, or maintaining a strict code of ethics. A graduating student who has yet to grasp the importance of high ethical standards is a disaster waiting to happen.

Moreover, even if some students manages to squeak by classes via cheating, they will be lacking the fundamental knowledge necessary to do any practical work afterwards. Engineering classes can be brutally difficult and unforgiving, but trying to get by without learning from those classes would be an even more brutal task; and worse, one where the negative consequences could impact far more lives than the cheaters' alone. The short-
term pain caused by struggling in a challenging class can be intense, but the long-term difficulties caused by cheating are far, far worse, both for those students and for society in general. An improved exam grade may feel good, but the information that was tested will soon be needed again; for a later exam, for another class, or for the design process of some crucial device. Better even to retake the course later, if need be, to ensure that the concepts taught in class are truly understood.

Imagine a world where all engineers were untrustworthy. Automobiles (let alone airplanes) would be an untenable risk, liable to explode or break down at any time. Electrical appliances would work haphazardly at best, with the designs for the electrical grid and electronic devices unstable at best and a threat for electrocution at worst. Getting running water into a building safely and cleanly would be unthinkable, forcing people to resort to primitive devices like wells, or even worse. Even the stability of homes would be uncertain, with no guarantees that they would be capable of withstanding time or weather. All the devices that people use and interact with are designed by engineers, whose honesty and discipline are essential for ensuring that people can trust their work. Woe be it to any society that lets the ethical standards of their engineers slip.

54) ECE 3040 Ethics Essay

Ethics are an integral part of the operation of our society. Ethics guide the actions of people so that every one is treated fairly. For example ethics in war time dictate that civilians should not be harmed during the course of the combat since they are not directly engaged in combat. Additionally, people in power such as government officials are obligated follow ethics. If they ignore ethics they are likely to commit terrible acts. Such an example is Hitler and the Holocaust. In addition to this it is the responsibility of others to ensure that every one follows basic ethics. In the case of Holocaust it was the responsibility of the Allies to end this terror as they learned more about it. These are just some basic ethics that extend to protecting basic rights of fairness, such just being safe from terror. These principles are fairly obvious to when they are supposed to be upheld. However ethics reach much farther and are much more subtle in every day life. In the case of students from this class we will need to be aware of the subtle ethics of engineering as professionals. The question then is what ethics do we need to be aware of?

As engineers for the most part what we do daily will not directly affect the safety of the general public as much as the war time examples discussed earlier. None the less an ethical responsibility still exists. To figure out what this responsibility is work back from the original definition of ethics given earlier, to ensure that people are treated fairly. So what can an engineer do to ensure people are treated fairly? First, an engineer should approach each project they are involved in with the mentality to provide an honest solution. An honest solution being defined as an idea that was originally yours, one of your project team members or an idea used with the consent of its creator and credit is given. The type of ideas which this criterion applies would have to be those which are fairly fundamental to the project. Second, it is the engineer's responsibility to provide the best solution he/she can provide to ensure the party who the solution is for, gets every
thing they expect from you. This basically means you should give your full effort on each endeavor you take on.

These basic ethics which every engineer should have stem from your days as a student. If you start practicing ethics early on as a student it is easy to continue practicing ethics. If you don’t practice ethics as a student the chances are slim that you will successfully start practicing them later on when you have a career. Georgia Tech helps to promote ethics early on by having us abide by an honor code. One of the main ethical standards students are held to is NOT cheating on tests and doing your own work. So how does this relate to ethics as an engineering professional? Let's look at the two criteria I outlined earlier. First, provide an honest answer, well cheating on an exam is exactly the opposite of that. There is one violation. Second provide the best solution you can. If you cheat you are not providing the best solution you can, you are providing the best solution some one else can. If you were trying your best, you would not need to cheat. This violates my second engineering principal. So if a student is violating these two fundamental principals in college how can you expect them to start to abide by them once they start working in the real world.

So we know what ethics you should follow as an engineer and when to start practicing them. What good does practicing these ethics do for society? If the two principles I outlined are followed, society can count on you producing quality products/solutions. This is fair considering what the consumer expects when they purchase a product. Also people can count on their intellectual property being safe. This is important because when people steal ideas every one is affected. In the business world the result is a long protracted legal battle affecting large numbers of people. On a smaller scale when people "steal" solutions to an exam bye copying off a peer the whole class if affected. First the class is affected by the class average artificially increased based on what it would have been (assuming a person copies the correct answer). This makes it difficult to judge accurately how the class is absorbing the information. Second the class is affected by little things such as an extended delay of tests being returned due to the cheating investigation.

Overall it is important that all people get a fair chance and ethics work to ensure thus. Whether it is a person getting a fair chance at safety, their intellectual property being safe, or purchasing a quality product, the practice of ethics ensures fairness for all. No ethical judgment is too small to warrant serious ethical consideration of what to do, whether it is some thing as small as cheating on an exam or a as big as a powerful leader deciding how to treat his subjects.

55) The Importance of Ethics in Engineering

While science deals with the abstraction of reality to better understand it, engineering is the direct manipulation of parts of the real world for the greater gain of humanity, either its whole or its parts. As thus, the effects of any errors in the engineering process, be it earnest mistakes or the results of cheating, can create very serious flaws in the objects that people interact with as a fundamental part of their everyday lives. Perhaps the error is minor and mostly harmless, like a toy from a cereal box not quite working properly. But it is also very much possible for the error to pose a
huge threat to the safety of hundreds or even thousands of people, such as a faulty bridge or building that is at risk of collapsing. Thus, the potential safety hazards of improper engineering caused are enormous, and any cheating which may induce such errors is no game or laughing matter, but potentially a huge danger. In most cases it would be better to have no engineering at all than faulty engineering; at least that way people will face only need to worry about the dangers posed by nature, without adding to them those added by human handiwork. It is thus imperative that engineers be held to very high standards of ethics, and the greater the position of the engineer, the stricter the code of ethics; after all, the lives of many people are at the mercy of their creations.

For students still training to be engineers, ethics are important as well, though for different reasons. The importance of ethics for these students is twofold: to become accustomed to a high standards of ethics required for engineer work when their receive a job, and to make sure they actually learn the materials needed. Exams and homework may be a more abstract testing of knowledge than real-world engineering tasks, but their integrity is no less important.

Laxing on ethical standards can be a slippery slope, where one shortcut can lead to another. This is a bad habit to develop for a student, but an outright dangerous one for an engineer, on whom far more depends than a GPA. It is crucial for an engineer to develop the necessary personal skills early on: while there is time to learn technical skills on-the-job, no such luxury is afforded for things like discipline, time-management skills, or maintaining a strict code of ethics. A graduating student who has yet to grasp the importance of high ethical standards is a disaster waiting to happen.

Moreover, even if some students manages to squeak by classes via cheating, they will be lacking the fundamental knowledge necessary to do any practical work afterwards. Engineering classes can be brutally difficult and unforgiving, but trying to get by without learning from those classes would be an even more brutal task; and worse, one where the negative consequences could impact far more lives than the cheaters' alone. The short-term pain caused by struggling in a challenging class can be intense, but the long-term difficulties caused by cheating are far, far worse, both for those students and for society in general. An improved exam grade may feel good, but the information that was tested will soon be needed again; for a later exam, for another class, or for the design process of some crucial device. Better even to retake the course later, if need be, to ensure that the concepts taught in class are truly understood.

Imagine a world where all engineers were untrustworthy. Automobiles (let alone airplanes) would be an untenable risk, liable to explode or break down at any time. Electrical appliances would work haphazardly at best, with the designs for the electrical grid and electronic devices unstable at best and a threat for electrocution at worst. Getting running water into a building safely and cleanly would be unthinkable, forcing people to resort to primitive devices like wells, or even worse. Even the stability of homes would be uncertain, with no guarantees that they would be capable of withstanding time or weather. All the devices that people use and interact with are designed by engineers, whose honesty and discipline are essential for ensuring that people can trust their work. Woe be it to any society that lets the ethical standards of their engineers slip.
Ethics from an engineering standpoint is not something that I often consider. That is not to say I do not follow a set of morals, but just that I never really have thought about how ethics could come into play in engineering. It is understandable that ethics is just as important in engineering fields as in any other profession such as doctor or politician. In some ways it is more important that engineers uphold high ethical standards than for a doctor to for example. Because if a doctor makes a poor moral decision, he typically will only hurt one person (his patient), but if an engineer doesn’t remain ethical, there is potential for many lives to be lost. If an engineer knows that a design has a flaw, and decides not to bring it up out of fear of upsetting his boss or some other reason, that flaw may go unnoticed until it shows up in as a product failure that could cost lives. It is also important that high ethics are upheld in the research end of engineering. Though little damage on a global scale my result from a single person stealing or taking credit for or falsifying research, if everybody did it we would not be able to move forward with technology.

For the reason that lives are at stake when dealing with work in engineering, it is important that students are held to high ethical standards. If ethics are not talked about and made clear, it is likely they will be ignored and essentially “swept under the rug”. This could lead to generations of practicing engineers that are willing to look the other way in the face of problems that could leave to the loss of life.

Cheating and fraud on exams may not be a life or death situation, but it still cannot be tolerated under any circumstances. Similar to what was stated before, though one person cheating will probably not affect much, if everybody did it, it would compromise the education system. How could you learn in a facility where everybody cheated, and that the only way to appear to perform well (at least on paper) is to cheat? Furthermore, what happens when businesses hire top students (based on grades) whom only have those grades because they cheated. This would likely stump technological advances.

A problem with cheating is that rarely are people going to associate it as a big deal. The typical cheater is not thinking that the entire education system is going to break down because they decide to peak at their neighbors paper on a test, and for the most part they are right. There is a lot of pressure put on students to get good grades (jobs, grad school, etc), and likely most students know hard work is the key to this, however few are willing to accept defeat at the last minute because they failed to put in the effort earlier. Cheating is obviously an act of desperation. Typically when people become desperate, they sacrifice their morals. Personally I don’t cheat not because of the moral aspects involved, but because I do not trust the person whom I am likely to be copying from. I like to consider myself a hard working individual, I make sure I study and learn the material before I go into a test, and if I don’t know the answer; I have no reason to suspect that they would.

I am sure society a whole can be damaged by widespread disregard for ethics in engineering. America for example is a country that prides itself on being leaders in technology, and at the same time we pride ourselves for maintaining the strongest ethics while doing so. It is likely that these two relationships are related. As described before if cheating and lying are widespread it sacrifices the integrity of the system. And in engineering practice if an engineering company is full of engineers with limited ethics,
the products that company produce are more likely to risk lives than say a company with ethically superior engineers.

57) Engineering ethics is important to a society for the obvious reasons of safety. I don't think that there is any argument with that. Students should therefore be held to a high ethical standard because they will be the engineers in a few years. As an overview of a society I think again we have the obvious issues regarding corruption and therefore lack of a proper order and fair opportunity (as if that isn't BS anyways, but at least it is theoretically possible in an ethical society).

Now I'll get to what I think regarding the current issue. My personal integrity has been challenged and I do not appreciate that. You are making assumptions on an entire class (not referring to the people sitting in room 341 between 12 and 3, but an entire student body) based on a few either desperate or lazy students. Copying on an exam is not only unethical because of an unfair advantage, but what's the point? If someone is going to cheat their way through school I don't see why they would pay 5k a semester. Maybe parental pressure makes people attempt to get through when they don't really want to be here. For someone like me without parental pressure I'm going to school because I want to, I've lived the alternative, and I'm here to learn something.

You sound like you're not just interested in the exam, so I'll go further into what I consider to be ethically proper. I work with other students on about 50% (that is a very rough ballpark) of the homework that I turn in. If a professor does not specifically say that collaboration is not allowed, I don't even think twice about it. I find that it can be necessary to complete the work in a timely manner, and although most of the time I end up explaining problems to other people rather than vice versa, I find that it improves the quality of the work and more importantly the amount of understanding of the material that I gain. I will discuss pretty much any assignment with anyone. For example, I have finished a programming assignment for another class ahead of schedule and a couple of friends have asked for help. In this case I showed them diagrams that I drew and walked them through the process that needed to be implemented in the project. I did not consider it ok to show or give the actual code that I wrote but I had no problem answering questions that they had, or even helping debug parts of their code.

My ethics as a whole outside of school are somewhat more questionable. I do download music and movies. That being said, if I give someone my word I keep it (not sure if this is considered ethics, but seems applicable). If I say I'm going to do something, or will be responsible for an issue, or even that I won't do something, I mean it. I don't see that point of lying about things so I will usually "tell it how it is" regardless of the consequences. This honestly (no pun intended) is not always a smart course of action and has landed me in trouble a couple of times between school, home, and the law.

So, you wanted to know how current students feel about ethics, maybe more accurately what are our ethical standards? I don't necessarily follow school, or laws. I do hold my moral and ethical ideals. I make a decision about what I consider to be right or wrong and take the consequences if someone disagrees with me. Speaking for myself, I don't think you need to concern yourself with me cheating or ending up releasing a product that I knew to be unsafe. Maybe my personal ideals do differ from what you would consider acceptable, but when it comes to ethics involving situations with other
students, or a population in general, people know what is right and wrong. This should not even be an issue. Students know it is wrong to cheat. Engineers know it is wrong to create an unsafe (sub par is a different issue) product. Maybe it does come down to a person's particular moral rather than ethical beliefs.

58) Engineers need to be held to the highest ethical standards. Just like doctors, engineers frequently put the lives of others in their hands. Usually ethics ‘violations’ occur in engineering when engineers cut corners. It may consist of making a circuit operate less than ideally to save research time, using inferior materials to produce an output, or other similar shortcuts. Shortcuts often lead to inferior products that may have undesirable operating ranges or high chances of failure. Sometimes these shortcomings may just be a nuisance to the person buying the product; however, sometimes lives may be put in danger when a piece of critical equipment fails in a product.

Engineering students should be held to a standard at least equal to that of society’s standard for engineers. People who take shortcuts often get used to taking them. If a person gets in the habit of making things easier then they will begin looking for ways to save themselves work, money, or time. College is the primary place that a student learns to work hard and not take shortcuts while trying to achieve a goal.

In governments where a dictator exists an ethical leader is very important. With so much control a leader can reduce the well being of people by unethical practices. Things like pocketing money for themselves leaves less money to go to the people.

Exam fraud cheating is very bad. I feel that no student should cheat on exams. Frequently working on labs and homework is considered as cheating. However, working in teams is instead an integral part of being an engineer. Without teamwork many advanced things that exist today could not of been produced. Although teamwork is probably the most important part of engineering, a test is designed to make sure a student can apply all of the necessary tools to be a productive part of the workforce. A test is probably the only time that a student should be forced to work totally independently of others. If a student is unable to understand the important difference of projects/homework and tests he should not be allowed to attend college. Teamwork is a very important skill to learn but also it is still necessary to make sure the student brings the same skills to the table as every group member. Without the proper skills the student would not be an engineer but a leech. Thus I believe a student that is caught cheating should be warned, but only for the first offense. After the first offense the student should be expelled from school for any future exam cheating violations. The warning is only because students should be allowed once to make a mistake. I believe there is a high likelihood every student will do something that they normally wouldn’t due to the stresses that a school like Georgia Tech puts on their students. Trying to get a higher GPA, keep HOPE, and even just staying at Tech might cause a student to do unethical things. However, if this happens more than once then the student probably is nowhere close to being able to reach their goal without cheating and will continue to do so. Once this habit begins I believe a student will continue to reach higher than they can go and use cheating as a tool to try and achieve their goals. Like if you cheat to keep a 3.0 but don’t have to keep cheating to obtain that, then why wouldn’t you cheat so you can get a 3.5
instead? Cheating can indeed be habit forming so repeat offenders should not be tolerated.

I personally want to be an ethical engineer and don’t want somebody else ‘pissing in my pool.’ IE I don’t want to open the paper one day and found some electrical engineer is blamed for hundreds of deaths due to sub standard parts because they could get a pay raise for producing a product cheaper/ faster at the sake of peoples lives. I am very disappointed to hear so many of my classmates may be cheating. I personally hope that if this isn’t their first offense that they get kicked out of school. And if it is their first offense that the proper people know that way if it happens again outside of your class they will be thrown out of school.

59) I firmly believe that ethics need to be followed in irrespective of the field, be it engineering or business or politics. As students, one of the biggest ethical violations that we can be involved in is cheating on an exam or test. There maybe various reasons behind students copying of each other, but I don’t think any of it would justify the act of fraudulence. Most students work extremely hard and honestly attempt a test and it is unfair that a person, who hasn’t put in as much effort, cheats and gets the same score or maybe more than the honest student. A person who has cheated probably ends up depriving another student of the A he/she was making in the class which in turn could weigh heavily on that student. As I had mentioned earlier, scoring points on an exam using unfair means is probably one of the bigger ethical violations that a person can commit as a student. This reflects that this same person can in future, once out of college, engage in more serious violations in the real world.

As engineers, we could be responsible for lives of people in the future and as such we must maintain a good moral code. Abiding by ethics is something that an individual should continuously practice, be it as a student or a professional. The small gain that an individual may obtain through the fraud would not justify the larger harm that it could possibly cause other people. If many people in a society start breaching ethics, its effect will be seen in a more magnified form. It takes the form of corruption. Corruption most certainly slows down the working of a society. It is statistically proven that the world's most corrupt countries are also amongst the world's poorest countries. A news article by BBC states that corruption in African countries has reached an extremely bad state. According to the article, in some public hospitals of Cameroon, patients have to put in some money in the doctor's consultation before they receive treatment. And there are reported incidents that students have to bribe their teachers to pass an exam. This is a real world example how badly society functions due to corruption. It throws light on how poor and innocent people have suffered at the hands of corruption and have been impacted by it in a real way.

As students and the younger generation who are going to take on the responsibility of society in future, it is on us to improve the situation and this can be achieved only by conscientiously practicing good ethics. As such, students who do not abide by healthy ethical practices need to be dealt with sternly to make them realize the importance of the honor code. Nonetheless, it should be corrective measures that should be implemented rather than punitive measures. It should not be just fear that drives the student to maintain the honor code, because then there is no assurance that the student, once outside the control of the disciplinary force, will maintain the same ethical integrity.
Ethics form an integral part of engineering. Engineers have very varied projects. Many engineers play with people's lives since the projects that they design affect many people. If an engineer is not ethical they can spoil the project and many people's life can be at stake. Ethical violations can start at any level hence they need to be stopped as soon as they are found. Cheating at school is one of the first kinds of ethical violation. It is unfair to the other students who are honest. Since the grade is determined according to the average if some students used wrong means to get a grade everyone's grade suffers. I feel that it is very important to punish the people who cheat because I am honest with my work and if someone does better than me because of cheating it is not fair for me.

Engineering ethics are very important to society because an engineer who went through school with cheating will not know his work and will not be good at his work. For example if a civil engineer is building a bridge and he is not sure about his work he can kill a lot of people by making the bridge wrong. Similarly an electrical engineer might be making an insulin testing machine for diabetics and a person can die if his insulin levels are not recorded correctly. I feel if a person is used to cheating they will feel that they can get away with it in every sphere of life and they will be corrupt for the rest of their lives.

Georgia Tech is very strict with the students who are caught cheating and that is a reason many students do not cheat. It is important to punish the students who cheat but I think sometimes the faculty is very harsh on the students. If someone is caught for the first time then they should be given a second chance so that their entire career is not spoiled. I have heard of cases when a letter grade was dropped and the students were put on probation. I think probation is a very strict measure against someone who has only cheated once. If a letter grade has been dropped then the students should get a change to make up the grade.

Cheating on exams is very serious and it should be punished. Exams are to test one's knowledge and every student puts a lot of effort in studying for the test. Everyone cannot do well on the test but cheating does not change anything since nobody can learn by cheating. There are many ways of making up the grade is there is a bad grade but cheating is unethical and it is unfair to all the students.

Corruption is one of the biggest problems in every country. Most of the countries are facing corruption in present times. The worst thing about corruption is that it is present at every level in society. Corruption is mostly present in developing countries and every honest person suffers because of it. Mostly the poor people or the middle class suffer because they don’t have enough money to fight the system and they have to face most of the corrupt officials. Law and order is very bad in corrupt countries because most of the police officials just work for money. The politicians of a country have to run the country and they have the hopes of the entire country but corruption is present there too. Corruption starts at very low levels, people who are dishonest from the beginning end up being corrupt later also. Mostly it is seen that people who are honest early in life they cannot take up dishonest means but the people who always get away after cheating other people tend to be corrupt always in life. Hence I think it is very important to stop cheating at school level because the future of the entire country depends on the next generation and it is important that our leaders are not corrupt.
61) **Ethics in Engineering**

Ethics in engineering can be defined as a set of principles of right conduct in engineering field. It is very important for engineers including students to practice their field under high ethical standards in order to prevent them from harming other engineers, people, and environment. Several examples of engineering ethics violation and why they are harmful for engineering societies are:

1. Exam fraud or cheating can be categorized as violation of engineering ethics in academic world, because students actually did not own or possess correct knowledge.
2. The real world-case of ethics violation is when a company copied other companies design. In several countries this imitation action is quite common, however it impacted the engineering environment greatly, in such a way, engineers have no security in developing their ideas.
3. Engineers who build weapons that are used to threaten the world.

To produce high quality engineers, it is necessary prohibit people from using other people ideas (cheating), and engineering fraud. High quality engineers are measured from their knowledge in their field, and by their commitment to the society and also engineering ethics. Imitating other engineers’ work, will detriment the engineer that actually creates the product. The copier can get all the credit, or sometimes partially. Engineering fraud can be very harmful for the customers. If the manufacturers claim that their product can perform specific functions; however, turns out that not all the claimed functions can be performed in the real situation.

Sometimes, engineers have to face some hindrances in complying with engineering ethics. Some cases are:

1. Money
2. Grades
3. Work: Let’s say for example that an employee asked his or her employer to imitate other company’s product without any licenses. The employee was hesitant, but his or her employee insisted that it was common occurrences in his or her country. If the employed did not want to do it, he or she would get fired. It takes some audacity not to violate engineering ethics in this case, especially if the employer had a very high position.

As a summary, we should try as best as we can not to violate ethics code in engineering. If we violate the ethics code, we should be ready for the consequences. I strictly believe that turning yourself in or giving back what actually belong to other is actually ethical action. It does not erase the bad intentions, but they actually acknowledge what they did wrong and probably not going to do that again in the future.

62) Ethics is something that society is not only always striving to define, it is also something that a society is trying to enforce. One thing to remember is that, in the “business” world, everything is about the “bottom line” - money. The most expensive
part of an engineering firm is research and development: R&D has no direct monetary benefit to the company (normally, you aren't selling anything when you are researching) – the money comes through built-in costs when selling the product. Let's use Intel as an example – an ECE professor that I've had before, Professor Sean Lee, said that Intel had over 600 engineers working on R&D for Intel, but less than a third of that number on actual production at the time he worked there. That means that most of the labor costs that goes into a processor is compensation for the huge R&D cost it took to make (and perfect) the processor. So, what can a competing company do to cut back on their costs? Copy off of Intel. Hire a few “reverse” engineers, decipher how their processor works, and bada-bing, you have a product you can sell at competitive prices with the “Real McCoy” Intel processor that might have only cost you 1/100th of the cost in terms of R&D. Obviously, this is detrimental to the society as a whole, because those who do the real work of innovation and design are punished by those who feel they should be made rich from the work of others. If this were to continue (on a large enough scale), then no one would ever make anything new because you would almost always be the one to lose money on the deal (in terms of your time and effort).

Obviously, students in ALL fields – not just engineering – should be held to the highest standards. Almost any field or study can have negative impacts on the world, they would just have different results based on the circumstances. Lets say a Heart Surgeon cheated his way through Med School, and used power and influence (through his parents or otherwise) to get out of med school. Fast forward to the future, where that Surgeon kills someone because he didn't know how to properly perform an operation, when no one was available to tell him exactly how to do it. Take an engineer – lets say civil – who cheats his way through school, is part of a team to design a bridge, and designs his section incorrectly because he never learned the proper assumptions to make about weight limits, wind factors or stress. The bridge is built, and it collapses during morning rush hour and hundreds of people are killed. Obviously, if cheating is not dealt with in a serious manner, those who know little or nothing about their professions will be given jobs and promoted before those who actually learned and tried and understand the material, which will have a detrimental impact on innovation, the economy, and society as a whole. Exam fraud/cheating is obviously an important factor into this debate, because it is the biggest portion of the “proof” as to whether or not you, personally, understand and can apply knowledge. Outside of tests, you always have the Internet, friends, books and lectures to help you along (because you are learning the material, not really being “tested” on it).

Corruption and unethical behavior effects people everyday. Remember the Bridgestone/Firestone tire controversy? Firestone was producing tires that it knew were faulty (in certain circumstances), but instead of doing the ethical thing and recalling them, instead just kept producing and selling them and then, when confronted about it, blamed Ford's Explorer for being extra prone to roll-over, when in fact the Explorer had a spotless safety record when using Goodyear tires. Firestone's questionable business practices cost over 174 human lives and thousands of injuries and accidents. On a much smaller scale, my Motherboard failed after only 4 months of use because the company who made the capacitors actually copied the design of another company, but the copy wasn't exactly right and the capacitors enlarged and exploded due to a poor design – a copied design. Did anyone die from it? No. But it also took my hard-drive with it, and
let's just say that even though hundreds weren't affected doesn't mean I, personally, wasn't pissed, as I'm sure every other person who purchased the same board was. Small scale or large scale, cheating and unethical practices are never a “victim-less crime”. Some people will tell you that cheaters dig their own grave, because when push comes to shove they won't be able to compete with those who truly put in the work, but it's not worth the lives paid – through time or blood – to sift out the good from the bad.

63)

Engineering ethics is very important to our society since engineers design or build things that people actually use. And the safety of the people is more important than the use of the material that has been made by the engineer. Ethics refers to distinguishing between what is right and what is wrong. I think engineering ethics is as important as medical ethics since both are dealing with people and their well being. I think no body is perfect and cannot make the right decisions every time but one should know the implications if their actions. This will force, in particular engineers to make careful decisions in their careers.

I think students should be held to an ethical standard to some extent. Students are on the process of learning things and how they should behave and make decisions regarding some of the things in the engineering field. Students should be thought more about engineering ethics, what to do in certain conditions, what not to do in others and what consequences there will be in making decisions.

Cheating on an exam as we all know is wrong and I think students cheating in their exam especially on the class of their major are basically cheating themselves. And once they cheat and get away with it, then it looks to them like is the easier way out. They know that it's not right and they know that they are not getting anything out of that subject, which means that they are becoming Engineers just for the name with nothing learned. That’s why I think engineering ethics should be thought to students in extent so they can know what is really important in pursuing their career. If a student becomes an engineer and doesn’t know much of the materials he learned, then this will cripple him in making the right decisions on his field and this could result in a devastating outcome. So I think exam fraud/cheating is ethically wrong and should be stopped and punished.
Corruption is basically stealing from people and the society. And corruption is a major cause for the up and down of one nation. When one country's authority is corrupted, the damage is worse to ordinary people even though the outcome is beyond imagination for the rich powerful. For instance, if a rich person committed a crime, the legal system could be altered with money; however, if the so-called crime was committed by middle-class individual whom life is relay on a week-to-week check, his life became a living hell.

Ethics is defined as “the discipline dealing with what is good and bad and with moral duty and obligation”. Ethics as such is important in the lives of every individual, not only engineers. To obtain an honest and ethically and morally correct society we need ethical persons in every walk of life. However, engineering being a profession where engineers are entitled to devise and design products that are used by the common people, engineers have a strong moral obligation to act ethically. Engineering students should be held to a high ethical standard so that when they enter the real work environment they can still practice the strong moral and ethical values imbibed upon them during their years of study as engineering students. Exam fraud is a clear indication of a student’s lack of moral values and should be dealt with utmost seriousness. This is because students found to be involved in unethical behavior during exams are more likely to continue being unethical later in their work life. And if not penalized heavily during their college years, they may start to believe that use of unethical means is the easy way out. This will provoke them to be dishonest in their work and research and if they produce faulty risk analysis and research data, this will affect the general public very badly, since they are the ultimate users of the products designed by the engineers.

Corruption and unethical behaviors do impact people in real ways. For example, if an engineer is entitled to perform a risk analysis on a newly developed X-ray scanning machine, and he receives bribe from the company making the scanners. He then alters the data and allows the machine to be installed in hospitals although it is hazardous to human health. This affects the health of the patients who are subjected to the hazardous levels of radiation and these people may die or develop cancer later in their lives. So dishonesty of one engineer can lead to the death of many people who have trusted the engineer and used the machine.

A similar situation can also occur if the risk analysis data for a roller coaster in a theme park is altered. A roller coaster with a faulty design, if allowed to run can cause serious calamities resulting in the death or paralysis of riders.

Having said all this, I want to elaborate on the fact that whether ethics can be taught or not is a highly debatable issue. I personally feel that ethics is something that can never be taught, certainly not in an engineering school. Ethical values are imbibed in a person very early in life and depend mainly on his upbringing and the environment in which he grew.
up. I feel ethical values develop very early in life and educating about what is good or bad, later in life hardly has any effect on one’s ethical and moral values. An ethics class does help to point out how to look at a situation from an ethical point of view but whether this point of view is accepted and practiced by some one with low morals is highly questionable.

In conclusion, I feel it is highly important that engineers hold strong ethical values since they are entrusted with the welfare of the public by devising technologically advanced products. They have a social obligation because they are part of society and the general public has trusted them and given them the authority to introduce newly developed products about which the general public has little or no knowledge. Engineering students therefore should be held to strong ethical values and exam fraud should be dealt with utmost seriousness to ensure that unethical behavior is kept in check.

65) Why or why not is engineering ethics important to a society.
Engineering ethics is very important to a society; engineers design, build, and maintain many processes that have a huge impact on society. Therefore, all engineers should abide by some standard code of ethics to ensure public and environmental health, safety, and trust. Codes of ethics are in place to set a standard that all engineers should follow and/or exceed when doing business to protect everyone’s moral autonomy. Without ethics, it would be difficult for engineering professionals to trust each other’s work, and it may put people’s lives in serious danger due to unethical practices.

Why or why not engineering students should be held to a high ethical standard.
Most engineering students aspire to be professionals in their field. As mentioned before engineering ethics is very important to society and professionals are expected to operate in line with the engineering code of ethics, therefore engineering students should be trained to obtain a high ethical standard. Any unethical behavior at the collegiate level will filter into the professional arena if it is not eradicated and taken seriously. This would eventually lead to a society filled with corruption and no trust. This issue should also be stressed because of the co-ops and interns that work in the professional setting while in school, these students may have involvement in a project that requires engineering ethics and obedience to standard codes such as the NEC.

How does/does not exam fraud/cheating figure into the engineering ethics debate?
Exam fraud/cheating figures into the engineering ethics debate because it ties directly to dishonesty which is a characteristic of unethical behavior. It is deliberate deception to participate in any cheating in school, one’s gpa doesn’t really represent one’s abilities or what they have retained from classes if they partook in cheating. That student will also be misrepresenting the school thus lowering its reputation. Once a student gets in the work field, his cheating will begin to catch up with him when his superiors realize the individual is not qualified for the job. I think this issue should be taken very seriously because I’m noticing more and more that the general idea of students is to just get the work done and try to get a good grade rather than doing an assignment to help learn the material better and studying to help retain basic information that may be used after graduation. Society also does not need any engineers that look for the path of least
resistance whenever they are solving complex problems. When one rides in a plane, goes over a bridge, or uses a cell phone they trust that the engineers who designed these entities took time to abide by the codes of conduct.

**Compare and contrast societies (real or hypothetical) where corruption and/or unethical behaviors have impacted people in real ways.**

I am not much aware of foreign affairs, but I know of domestic corruption and unethical behaviors that have affected people in real ways. The popular scandal with Enron, where managers were reporting false numbers to their investors, shows how dishonesty usually catches up with you and how unethical behavior affects others. Many people lost jobs from this scandal including people that did not work for Enron, someone’s unethical behavior affected society and it lessened the amount of trust we put into our professionals. There is a saying that goes, “What’s in the dark will come to the light”, therefore no matter how well one may seem to be doing as a result of their unethical behavior, it will eventually catch up to them.

66) Before getting into the elements of this essay that are strictly required, I'd like to go on something of a tangent that I believe to be of worth to consider. In my opinion, **more important than the question of whether or not someone has cheated on an exam is the question of why someone is cheating on an exam to begin with**. I have never cheated on an exam before (which might be fortunate for professors, because I like to think of myself as a creative person, and have on a whim concocted schemes that were never implemented for how my friends and I could communicate during exams. One had lasers. You can't go wrong with lasers.), but I certainly have felt that temptation. For me, it has always come from the pressure to succeed in an environment seemingly bent on ensuring my failure. I don't know if the same is true for those who actually go through with cheating on an exam, but if so, then I can very easily see how this would be the class that would drive them to it. To my knowledge, we only receive four real grades in this class-three tests and the final. Every other grade we receive is binary, either we did it or not. That means that 90% of our grade comes from those four tests. Just consider that for a moment. 90% of the grade, based entirely on about eight hours across four days. There is no possibility of a high lab score or homework average being able to balance out poor test taking ability. That creates an amount of pressure that is near indescribable on those four days. Already I dread the final exam for this course, considering that determines not only 30% of our base grade, but in essence whether or not we receive the benefit of a curve on our previous tests. I really do expect that at least four people across the two classes will try cheating on that test. Whether or not that prediction comes true, and whether or not they will get caught can only be told by time, but please watch out for it. You can not put that much weight on a single test and not expect someone to try cheating on it.

Hope you don't mind me having written that, I know it's not part of the assignment, but I felt it somewhat necessary to say. Now for the required part.

Ethics are a vital part of any society, any life, and any job. Especially in a field in which the products you create and devices you design could have the potential of ending someone's life, quality of work is a necessity. I don't know what I'm going to be doing for a living when I graduate from tech, but I know that most possibilities involve the
design or creation of products that will be produced and used on a massive scale. If I were to take shortcuts on designing an mp3 player, or be lazy about some things when trying to put together a new processor, poor results could be catastrophic from a business sense to the company that I would be working for and on a personal sense in that it would be a failure that I know I would constantly remind myself of to the point of absolute misery. It is never possible to know what the devices that we create will be used for, and it is likely that at some time a person's life will depend on that which we design. The only way to ensure that our products are always functioning as desired is by always making sure that we uphold the highest standard we can for both our designs and for ourselves. This high standard is not something that is magically instilled within us upon receiving a piece of paper after four (or six) years of work. It is a standard that must be expected and engrained within us from the moment we step onto this campus and into a classroom. The reason that we need to be kept to a high ethical standard now is because this is the time in which we are supposed to be learning how to be good engineers. The knowledge that we obtain here should not be limited to that which is found in a textbook. If we don't come into tech with sound views on ethics and it's never taught while we're here, how is it reasonable to expect that those ethics will exist after graduation? We as engineering students need to be held to a high ethical standard because if we aren't held to that standard now, we won't expect to be held to it in the real working world. As cheating is more or less the largest infraction of that ethical code that a student can commit, it should not be tolerated in any form. Personally, I think that the students who cheated on the past two tests should fail the class outright and note of that be made on their transcripts. This might sound harsh, but I consider it a sign of ultimate disrespect to a professor, a class, and this institution when a student tries to skate through a class only by copying the work of others.

I'm not entirely sure about what we're supposed to be doing for this last part, comparing the two different theoretical societies of ethics and corruption. I suppose this is supposed to be an exercise to try and see just what society would be like were it run by people who had the same morals (or lack thereof) that those found to be cheating on the previous tests displayed. Assuming that is the case, I can only say that I shudder at the thought of living in such a society. I have a hard enough time simply being the same class as people who I have cheated their way to their current position. I honestly can't describe how I would react were I to actually work under such a person, but I don't imagine the reaction would be pleasant.

67) Ethics is an issue that is continuously debated in today’s society. News headlines are always flashing something about corruption in business, or professional athletes taking steroids, or something like where the Challenger space shuttle exploded. But why should Americans care so much about these issues? The only difference between humans and animals is the fact that we are able to reason. This ability to reason has led to a world where order, not chaos, is the law. With ethics, this fundamental belief can be upheld, as there would be no hindrance to forward progress and the voice of the people would not be undermined by individuals who do not uphold ethical practices. Specifically, in the field of engineering, ethics is crucial because it is an engineer’s duty to create a design that will not cause harm to society, and is created in an ethical fashion.
In our capitalistic economy, hard work and development of technology are driven by the assurance that we will be able to reap the fruits of our labor. For example say an engineer steals someone else’s work and makes a profit off of it. The individual whom he stole it from would no longer feel motivated to work as hard since there would be no benefit to him. An engineer’s work should be his own, or credit should be given as it is due. This is one important aspect of ethics in engineering. Another aspect is the duty an engineer has to his society. Since an engineer designs products that interact heavily with people, this puts them in a direct line with the safety of those people. For example, take the Challenge space shuttle. The engineers could not say that the shuttle was completely safe, yet the shuttle still launched and resulted in the deaths of seven people. Perhaps this was good ethics on the engineer’s part for letting management know that the shuttle was not safe, but it still goes to show how much of an impact the engineering directly has on the people using the product.

While these ethical practices may seem like common sense, they may not always be, and to prevent disasters such as the Challenger, ethics is a course required for the graduation of students from Georgia Tech. In addition Georgia Tech students are held to a high standard of ethics regarding their school work. However, many students do not realize how important this is, as cheating on tests is still prevalent throughout the school. Besides cheating themselves out of an education, an engineering student may be cheating on someone’s life after getting a job after graduating. But, is there any way to tell if a student does not practice good ethics in school, that he/she will follow the same pattern after graduating? I am not sure, but perhaps all it takes is the awareness of the impact that they will have on society after graduation. Maybe the ethics course should be taught sooner in the curriculum, to make students aware of all of these issues during their years of school.

From my experience, I have found that the majority of students do cheat on something or another while in school. However pretty much all of cheating I am aware of happens on homework, not tests. This is reasonable, in my opinion, because in the real world, engineering is done in teams where the workload is broken down into parts. As long as credit is given to whom you collaborated with, ‘cheating’ on homework I think should not have a heavy emphasis. However, the test is the measure of how much you know as an individual, and should be done only by the individual. This can be compared to a task that must be completed individually in the workplace. Getting the right answer on the test can be compared to getting the right design parameter for the product being designed. If one looks at the situation like this, getting an incorrect answer on a test, or cheating on a test, may mean that someone could die. I think that some students just forget that learning the material is more important than getting a good GPA, as Georgia Tech is a competitive school. Maybe that is why schools such as MIT do not put a heavy emphasis on GPA—they know the students who got in are smart, and therefore are more worried about the students learning the material than being concerned about grades.

68) When I was in 12th grade I had to make a speech about a topic of my choice. I chose the topic of cheating. The title was: “To Cheat or not to Cheat.” It said something along the lines of us all having a fare chance and if I choose to do something that increases my chances of success at the price of risking getting caught, there is nothing
wrong with that, since everybody else had the same opportunity. Back then my actions did not seem important enough to me for me to care about the ethical aspect of the issue.

Coming to college I began to feel like I was on the disadvantage side since at this place high grades come not only from hard work but from access to “word.” The more people you know and the better connections you have, the better word you get and if you choose your classes right, you might not have to do much homework or study hard for the tests at all. Even having the right calculator is important. I finally acquired a TI-89 this semester and man is it awesome! Too bad I went through all my math classes solving my own derivatives and integrals. But the thing is, once you get into the real meat and potatoes of things, like we do in this class, no calculator can save you, which I am actually happy about. Just as I am appreciative of the fact that you have all of your old tests on your site. That definitely evens out the playing field, since everybody is given the same chance to study and practice. I know this because I am the type to spend more time on finding a way of not doing the work instead of working, or bringing study groups together. I actually don’t think I should be an engineer; I don’t have the knack for it. I see a future in procurement or something of that sort. But to get there or to some management job, I have to go through the engineering steps first. And that’s where the ethics issue begins to concern me.

If real world engineers acted the same way students do, there would be very little progress in our society. We would be too busy fixing the things that were messed up but the incompetent people who got to their positions the same way some students get through classes, riding the c curve or even worst, cheating. I used to think that people like that don’t get the jobs that matter, and therefore could not cause too much damage to the society, but am noticing more and more that that’s not true. A lot of good jobs go to people who don’t deserve them through connections and etc. What this causes is leeching. Engineers who are not capable of producing anything on their own leach on to those few who actually do know what they are doing and thought cooperation or simply by stealing the designs try to produce something that is usually of second level quality, since they don’t really know how to work with it. This also opens up a hole Pandora’s box of safety issues. So much of the world around is man made, that it does not take a NASA engineer’s mistake to have fatal results, it can be an engineer working for a car company or the gas company or even an electrician. Engineering mistakes can affect way too many lives.

We, ece students, are the next generation of engineers and it is understandable that our behavior now may be used to judge us later as engineers, and therefore cause concerns. I can’t tell yet if the number of people who get a degree and a position is high enough to be dangerous to us. It is definitely high enough to consider outsourcing, like you mentioned being a result of not just cheaper wages, but better quality work. If we want to keep the jobs here, we need to produce better employees than other countries, and part of that is setting higher standards. GPA seemed to be a good enough standard before but if cheating is so common than GPA can not be trusted.

I don’t know if cheating can bring down a society, but I guess it could speed up its deterioration. On the other hand, I do believe in the survival of the fittest. I am just afraid that in now a day’s world, fittest does not mean the brightest, but the most cunning. In that case they will survive, but at our cost.
69) Engineering Ethics

Engineering ethics is important in society for several reasons. First of all, engineers deal in areas of technical expertise that ordinary citizens cannot understand, so it is harder to hold them accountable. This means that they need to hold themselves to a standard of ethical conduct or else corruption could become rampant. Second, many engineering designs impact the safety of the general public, either positively or negatively. For example, a bridge designed by engineers is used by thousands of citizens, and if it were to fall it could take the lives of many people. Finally, many engineers become managers and CEO's of companies. As leaders in the community and country, honesty and integrity are a must. When people in these positions don't have observe ethical standards situations like those that occurred at Enron would become commonplace.

Engineering students should be held to a high ethical standard. Obviously, engineering students will very soon become practicing engineers. The habits that an engineering student forms while in school will certainly follow him throughout his career. If a student thinks it is okay to fudge the numbers on a lab in school to get a good grade, he will probably be able to justify doing the same thing in his job to get a promotion or grant, etc.

An important area of engineering ethics in college is exam fraud and cheating. As mentioned before, the engineering student who thinks it's alright to cheat on an exam will most likely carry this sentiment over into his career, when the consequences can be much more severe for him and his customers, clients, and coworkers. Also, by using the slippery-slope argument, it is conceivable that small indiscretions exercised in college can grow into much larger dishonesty later on. **A student may tell himself that it's only one problem on one homework assignment that he's cheating on and it's just because he's really busy at the time. He can convince himself that he'll never do it again. But the next time it becomes easier to do the same thing, and he decides it's okay to copy the entire assignment. Each time he cheats it is only a little worse than the last time, but eventually the areas in which he is dishonest become much severer than he could have imagined the first time he cheated.**

Another reason that exam fraud and cheating is a serious issue is that it is unfair to the students that don't cheat. Many engineering schools are very competitive, and exam fraud gives an unfair advantage to the cheaters. Also, when students cheat they aren't learning the material. This will be a problem for them later in their career when they don't know the information they need for their jobs. As cheating increases, the quality of engineers coming into the job market will be lower.

Consider, as an example of a society that disregarded ethical standards, the Soviet Union during the Cold War. This country's leaders displayed every form of corruption and unethical behavior in their quest to become a world power. For example, it is well known that their Olympic team used whatever means necessary, including illegal drugs such as steroids, to achieve success. The government was full of corruption and deceit. However, this reckless disregard for ethical behavior didn't bring the success they hoped for. Instead, it finally bankrupted the country and left them in economic ruin. Contrast this with the United States, their rival during the Cold War. The US, although not perfect, held a much higher ethical standard than the Soviet Union during this time. It is clear
that keeping ethics paramount in a society is fundamental to its success economic and social success. In fact, any society in which ethics is disregarded is far more likely to be headed for disaster than one who doesn't.

70) The problem of cheating that you have observed is an ethical problem and you are right for being concerned about it. Pretty much anyone has come across cheating in some form or another during their school years. While at Georgia Tech I have witnessed cheating personally only once, while hearing about it several times. In my judgment I would have to say that close to all of the engineering students that I have come across are hard workers and wouldn’t cheat. However after saying that there will be a few that ‘cut corners’ and do cheat. These students or employees should be dealt with harshly when caught.

  Engineering while being driven by science also has an underlying principle to create with a goal of improving society. When ethical standards are broken, productivity and even lives can be adversely affected. While at the time the student may think he or she is helping themselves, they really are hurting themselves and their classmates. If they have to cheat in one of their major classes then maybe they should think about switching majors or take fewer classes to devote more time them. I’m not saying cheating is acceptable in non-major classes but it is beyond wrong to do it in your major. That’s what a company is hiring you to do, it’s what you should learn no matter what. Cheating in those classes only sets you back, it wasn’t only cheating to get yourself a better grade it ends up cheating the company that hires you, the student that received a worse grade than you and the whole school.

  I recently found out that allegedly a large group of students cheated on a calc final in one of my classes a few years ago. Now I hadn’t be doing relatively well in the class but I thought I was in good position to at least get a ‘C’ and move on. Well the final ended up being rather ridiculous and most people I knew didn’t expect more than a 50% on it. I wish I would’ve known this had happened at the time, but a portion of the class had the final beforehand the average was well above what it should’ve been and I ended up having to repeat the class because of a ‘D’. This did significant damage to my overall gpa and ended up costing me a few grand in credit hours. I believe this wouldn’t have happened if the students hadn’t cheated. This has greatly influenced my view on cheating and I think students should be greatly punished for those types of actions on tests. Now I may have copied a homework here or there when in a crunch, but never on a test. Because that’s what an exam is supposed to be, a test of what YOU know and understand, not someone else or to see how good your networking is.

  It’s obvious in so many examples why ethics are important. Luckily in business it is being more enforced than before because of the Sarbanes-Oxley act, but look at what it took to bring that about. Hard working Americans lost almost their entire retirement saving because of Enron. It was a harsh wake-up call to people that no everyone is trustworthy and if you see something wrong like that you can’t just look away. Many African nations are the prime example of what widespread corruption can do to a society. People are starving and living in huge slums, and it will never change until the people
running the country end the corruption. While the generals and presidents live in huge mansions with 3 Bentleys their people are starving and can’t get clean water to drink. Corruption has existed since the dawn of civilization, but those who have progressed to become the most advanced and free have fought it and made it unacceptable.

Engineering students should be held to a higher standard, we’re supposed to be the ones who fix problems for society, not create them.