Team #1 - Team Space Jam
The best advice I can give you is to speak up in your group. Team work is essential and nearly all of your work will be done with at least one other member of your team so if you don’t speak up, whether it’s for clarification or for input, then you won’t be happy with the work and the end result. Compromise is the key to a successful satellite. Also, time is the enemy. Do not procrastinate. This class is easy if you do not procrastinate.

Team #2 - Team Mate
This class is not easy. There will be times when you are ready to give up, ready to drop, and ready to just get some sleep already. Regardless of all of that, this class is a rare opportunity to achieve something fantastic your freshman year. Even if aerospace is not going to be your chosen field, the exhilaration of dreaming up your own satellite and then building it and launching it is something that you will never forget. The bragging rights of “near space” will never leave you and it is worth the effort in the end. Accept the challenge and prove to yourself what you are capable of.

Team #3 - Team O2N Cloud 9
Greetings intrepid gateway-a-tees! You are likely reading this and thinking to yourself, who is this buffoon, who is about to tell me I won’t manage my time well enough. You then should be prepared for my response of; “I am no different from you.” Like us, you will experience crunch time, you will experience failures, and you will experience stress. But as a great man once said, “Dun wurry, it’s ’K.” You will learn a goodly amount, and if you are doing it right, you will have a goodly amount of fun. So without further spoilers, I shall tell you, Good luck. P.S. Double check your wires and battery caps. Trust me.

Team #4 - Team Big Green SpaceGasm
This course is an invaluable and exciting learning experience – one that few incoming college freshmen have the opportunity of pursuing. The course will require your time and devotion. But when all is said-and-done, you will look back on your time in this class and can be proud of what you have learned and what you have accomplished, as an individual and as a team. Communication becomes a major deciding factor towards the success of your payload. While each subsystem is capable of completing their specialized requirements to be flight-ready, it is the integration of the system as a whole that will be most crucial. When one subsystem fails the team cannot proceed with systems testing. Time is never an ally in this course. While it may seem like you and your team has much time to complete a given task, the assignment will generally take longer than expected. Anticipate that whatever can go wrong will go wrong, especially as deadlines approach. Also, it would be wise to adhere to the “K.I.S.S.” model when deciding on mission objective. K.I.S.S. stands for “Keep It Simple Stupid”. While the course yields much freedom to the teams when choosing their mission objective, remember that you and your team will have about one to two months to plan, construct, test, and finalize the payload. Have a fun, interesting, and unique mission objective, while ensuring that the task at hand can be
accomplished within monetary, weight, and time constraints. In the end, the course is meant to be an inspiring and challenging experience. While most of what you accomplish is self-taught, be sure to take advantage of all the resources available to you. Be sure not to neglect the relationships that you build as a result of this course. You will likely befriend the members of your team, and they may well be the people you look to for future group assignments in other classes. Finally, the journey upon which you are about to embark will indeed be trial by fire but you will be refined in the process. Best of luck!

Team #5 - Team Lightening Rod

Building a BalloonSat is a lot more work than one anticipates. There are many unexpected problems that arise during construction of a satellite. Schedule to finish a few weeks ahead of time to leave space for troubleshooting. It is a miracle if you don’t encounter some problem with your satellite, so anticipate and allot time accordingly. Also, never underestimate the amount of time needed for software. Programming can be a killer and without the ability to collect data, your experiment could be worthless. Start all aspects of design on your satellite right away so that you are able to properly allocate your time and efforts. When making “homemade” parts, never put off their construction until later when you could build them now. They will always need modification and the earlier you can assess what needs to be changed, the better. A good approach to getting things done is to divide into smaller teams within your team. Using this strategy, you can assign certain aspects of the project to each smaller team to make sure that they get done. Finally, this class is extremely time consuming. If you are not dedicated, then transfer out. You will need to devote about ten hours per week to this class and your team can’t afford members who are not pulling their own weight. It is a wild and stressful ride, but you will have a blast doing it.

Team #6 - Team μ

When entering this class in the beginning of the semester, there are definitely some tips and advice that would prove beneficial to your success throughout the semester because this class is not like most other college courses. It involves more work outside of class than any other I have taken and it would be the best idea to get as much help as you can as soon as any problems come up to make the most out of your time. It may seem like a few months is sufficient for the amount of work given but it is not if you don’t spend that time efficiently. Time will fly by faster than you know it and the last thing you want is to wait until the last week to figure everything out. Even if you think you are working at a good pace and keeping on track, you probably aren’t because the most work you have to do will pop up out of nowhere when a problem you haven’t foreseen arises and you only have a certain amount of time to determine what is causing issues and fix it. Another key point that seems obvious but can really cause problems is the choice of your project. There are many reasons why this could make or break you, first of all because if not all of your team members like the idea, they won’t be inspired or motivated enough to give it their all throughout the term. Also, if not everyone understands the project and how to analyze the results you will get in the end, you will have A LOT more work to do, especially after launch. This not only wastes time but it also causes more dissonance within the project and team, even if no one realizes or speaks of it openly. You don’t need to choose something everyone already knows about or understands completely, this is a learning experience and you should choose something you’re interested in finding more about but that is also reasonable. Which brings me to my next point that you need to choose a project that is challenging but that is
attainable in the short amount of time you are given. Critically analyze what you want to accomplish, any issues that could arise and if it can be done. Our team found out way too late that there were obstacles that we could not get over within the semester leading us to change our project multiple times losing us a lot of time, motivation and confidence in our idea. Do not make this mistake because it could be the difference of having fun with the project and just trying to finish to have something done. If you do find a good idea, go with it and enjoy the process of learning from mistakes and fixing problems as they come up. Lastly, and maybe most importantly, make a conscious effort to understand you team members and let them understand you to act as a cohesive team. Try to figure out each other’s strengths and weaknesses early on so you can play each other’s strengths but also help each other where there are weaknesses.

Communication is another factor that can either make or break your team’s success because the odds are that you will be put on a team that is comprised of very different individuals from very different backgrounds. It is inevitable that personalities clash at times but it is how you deal with these situations that really matters. Respecting everyone should be the first and foremost rule, even if you don’t necessarily get along with someone, be respectful of them as a person no matter what. Do not take anything to personally or try to offend others personally or there will be major tension and feelings can be hurt. Also realize that others may not be as experienced in some areas and that you just need to help each other and allow them to try and learn more. The distribution of work between team members needs to be as equal as possible and done as a team, not individually so everyone understands what is going on. These should be understood going into the project because there are always slackers and there may be overachievers who, in the long run, can both contribute negatively to your team if they don’t allow equal work to be done across the board. You also need to be able to take responsibility for things you have messed up on and be able to contribute more to your team if this happens because sometimes, special circumstances may arise but you still need to be there for your team. Along with these things, one of my best pieces of advice would be to set norms for the team at the very beginning. These involve things like types of communication (phone, email, etc.), when/where to meet for team meetings, etc. Make it clear that you consider being late or missing a meeting to be unacceptable, that you need to be anticipate phone calls at certain times if a team member needs you for help on certain parts of the project, etc. Also, if a team member is not present for work that needs to be done, do your best to get in touch with them as they may not know about it or may have extenuating circumstances that you don’t know of. These types of things will eliminate excuses and hopefully save time that could be easily wasted. Overall, this is a great learning opportunity and a chance to have a lot of fun doing a really amazing project that not many people get to do. Don’t take it for granted and don’t think it’s not a big deal because as you will find out, it will become a huge part of your semester and college career as a whole.

Team #8 - SST

Inspired, angry, indifferent, curious, motivated, proud, excited – these are some of the emotions that might possess you over the duration of this semester. So many of those feelings will depend on how well you will work with the rest of your team. When you found out, you may be somewhat upset that you can’t pick your own teammates. The unknown will stir unrest that must be embraced. Soon after you’ll begin working towards your ambitious goal. In many ways this class can be compared to the ever changing nature of life. You will experience uplifting moments when you will be filled with exuberance. At other times reality will set in, slamming you down for what may have been a tiny mistake. The way you respond to such
downfalls will inevitably define the success of your mission. In a similar fashion, it is necessary to have fun when you’re working on your project. There will be times when all the paperwork will feel like a drag. But this is not an excuse to forfeit. No matter how daunting the task at hand, it’s important to continue working with a joyous spirit. Lastly, one of the most important things to do for the duration of this project is to establish a system of checks and balances. All teammates should be very engaged in this project, doing what is best for the team. In order to ensure that everything goes according to plan, each and every team member needs to check and recheck the work of others as well as the work of their own. The system must be applied at all times during the project, so as to make sure that all of the team members are on the same page. Specifically, this is a vital task to perform before launch – make sure that everything is turned on and functional before you release it into space.

Team #9 – Team Solkraft
We communicated well as a team, and that was definitely key for our group. As individuals in the group we respected the other team members and stayed open to their ideas, which really worked. What worked for us was to meet and break into smaller pairs to get work done. It is never too early to start something, going to do the work eventually so if you get it done earlier it is less stressful and you have time to deal with problems. Leave plenty of time for testing and test for everything, even if you don’t think that something will be a factor. Be paranoid with testing and thinking through every possible scenario. Tim May is very helpful and if you’re stuck he can help you figure out what is wrong and how to fix it. Launch is awesome and the pictures are great. If we could do it over again we would have tested every possible scenario we could think of that our BalloonSat could have faced. This class will be one of the most rewarding and unique experiences of your education. Gateway will give you an inside look into the life of an engineer through hands on experience. That being said, this class is very difficult and very time consuming. Be prepared to learn entire new concepts with little guidance in a very short amount of time. If you have the dedication then you will get through it, but it will be challenging. Start early, work hard, and you will have the time of your life.

Team #10 - Team Munchies
First of all we recommend that you have a plan B for whatever you decide your experiment should be and make sure you know where you can get your hardware in case your primary supplier doesn’t work. Second, make sure to do your cold test before Halloween because all of the dry ice gets sold out everywhere. Third, keep your structure small so that you can concentrate your heat. Basically, it’s best to do the cold test early. Other than that, as long as you work hard, delegate tasks well, and are flexible you should have a great time in this class! The pictures are so amazing!