My expectations for this class were completely met. I learned as much or more than what the messages from last year told us. I understand all the steps a project goes through and how to create the documents, how to design presentations and to build a structure ready for flight. I expected to spend lots of time and learn lessons that will carry on to future projects. Every class period was something new to understand and further my knowledge of engineering. I realized it would be difficult and get frustrating at times, but that is something you have to deal with in life and time management was a key part that I knew would be important. My last expectation was this would be the best class my freshman year and probably most of my college life, it truly was. Thank you so much.

Yes, this was probably one of the best and most influential classes I have ever taken. Gateway to Space provides a short overview of what an aerospace engineer has to go through. From the conceptual drawings all the way to recovery and data analysis, this class has definitely given me a true perspective.

My expectations for this class were well met. I expected to be challenged to learn what I wouldn’t otherwise and that expectation was well met with all of the research and late nights that were required to get everything done. I expected to be required to perform above a level that I had been expected to before. That expectation was well met when I received the grade on my teams first proposal. In the end I think that the class was terribly stressful but it ended up being the most fun I’ve had with a class in a very long time. This class has prepared me very well for beginning to study engineering and has given me an opportunity to work with CU Spacegrant over the next few years I have here.

My expectations were met in this class. I gained insight to the life of an aerospace engineer and all the career choices I will have. I also learned a lot of useful information that amazed me about space. I wish the class would cover airplanes too but it is called “Gateway to Space” for a reason. I greatly enjoyed this class and would suggest it to anyone interested in Aerospace Engineering.

This class definitely exceeded my expectations. I really had no idea what this class was going to be about going in. I have never done a project that was so interesting and difficult yet rewarding at the same time. Launch day was really fun and I had no idea what it was actually going to be like, and I’m glad the launch was successful, even though it would have been cool to see the hydrogen balloon explode. The building of our satellite was a long process, especially with all of the design documents that we had to create. But, that just prepares us more for engineering in the real world. I had such a great time in this class and I wanted to thank you for such an awesome experience.

Absolutely, this class delivered exactly what I expected. The quick pace and difficulty was a great way to get a feel for how these projects go. I feel like I learned more on my creating a BalloonSat than in any class I’ve taken. It was amazing to accomplish so much while learning to function with a group, present, and deal with mission failures.

My expectations for this class were definitely met! I loved this class. I had such a great time designing a constructing the balloonsat. This class was everything I thought it would be and more. I became very close friends with my teammates. I have been through so much with them and I’m sure that I will remain close to them for years to come.
Gateway To Space – Message to Fall 2013 Students from Fall 2012 Students

Yes! I expected to work hard and learn a lot and I did exactly that. I didn’t realize how much my proposal writing skills would be improved. I am very grateful for that I was able to work on them because I will need to write a lot of grant proposals in my field.

First off, this class was a great introduction into what my next four years are going to be like. I greatly underestimated the work this class was going to take. This class really did exceed my expectations in terms of the content and the work required. I never thought I would be up all night working on projects, while also doing a variety of other things for the same project. The content provided to us was at times overwhelming, but through this whole process I definitely learned what it takes to be an engineer. At times during the project I did felt it was too much for freshmen to handle, that we needed more instruction. Instead, we just had to work it out on our own or at least attempt to. This class did exceed my expectations in how frustrated I became. At times I could hardly stand my team or the constant problems our satellite was having. Overall, this class was one to be remembered. I learned many useful skills that will be applicable in my future college career. This class definitely left me feeling that my expectations were exceeded both in positive and negative ways.

My expectations for this class were more than met. I was given the opportunity to send something to space! Words cannot fully describe the feeling of watching your very own satellite go to space. I designed and assembled something that went further than I ever have. Chances are, I probably will never go there either! The other great part of this class were all the lectures we had from various Lockheed employees and others. Every single time we had lecture, I learned something that absolutely blew my mind. We learned about orbits, ADCS, spacecraft, Mars rovers, propulsion, the private space industry and so much more. This class was truly the reason I woke up in the morning on Tuesdays and Thursdays.

Yes, I was expecting to get picture from near space and also video. I got both so I am happy.

My expectations were met, besides dealing with some obnoxious and stupid teammates, it all went well.

Were my expectations for this class met? I think I recall my expectations at the beginning of the class to be very little. I wasn’t entirely sure what I was going to expect other than we were going to build an object that is going to be flown to the edge of space. After everything this class has absolutely exceeded everything I ever expected. The teacher has to be one of the best at CU Boulder. He doesn’t just lecture and write notes on the board for his students to copy; he interacts with his students on a personal level. The first thing you see in the class is a very comical impersonation that Mr. Koehler does. He starts of every class with a funny video to get the students started off right. His sense of humor rubs off on his students and it just makes the class all the more fun to attend. The project itself was the least to say rewarding. Our team spent a of time, especially near launch, perfecting the BalloonSat to make everything function correctly. This class has met and gone beyond my expectations and I wish that I could have taken the class earlier in my life so I would have had the experience and I would have been able to grow upon this experience for longer than I have now.

At the beginning of this class, after being told from rowers who previously took this class, I can safely say it was everything I thought it was going to be, which was long, hard, and the class in which I do the most work by far. The material you presented about what it entails to be an engineer, and what your career looked like, kind of made me rethink my position on pursuing Aerospace Engineering. I have no doubt in my capability to have completed the rigorous course work, but at what cost? I really wish to find a career that is far more sociable than what it appears being an engineer would.
All I knew coming into this class was that it had to do with space, so that made me expect it to be awesome. The workload was a lot more than I expected, I had no idea that if I did the programming for the team that I would basically be doing the entire project. Although there have been many all nighters and times where I wanted to rip my hair out, I learned a lot. I learned a lot because I had to. I expected this class to prepare me for the real world of engineering and it did.

I enjoyed this class a lot and it was actually my favorite class of the semester. It was a great opportunity to work on a project like this. I learned a lot of valuable lessons that I will probably carry along with me throughout college and a career. So thank you Chris, for an awesome class.

Yes my expectations for this class were met. From reading previous students comments I expected to be challenged and that turned out to be the case. The class was interesting and a great hands on experience.

Absolutely, it was a challenging, and exciting class. I wanted a class that exposed me to the actual process of design, testing, and launch.

My expectations for this class where met and exceeded. I was not expecting as much freedom with the satellite building process. I expect that we would be told more about how to do everything and I appreciate that this was not the case. I am glad that this class pushed me to just figure things out on my own.

My expectations for this class were definitely met, it was incredibly challenging and fulfilling that knowing That if something went wrong; Chris would most likely not bail you out. In the end this made it OUR project instead of HIS project. While occasionally, especially when we were struggling with technical difficulties, this was very frustrating, Chris gave us the exact right amount of help so that we were able to accomplish our mission while maintaining a sense of ownership over it. This was by far my favorite class this semester and it taught me so much more about aerospace engineering than any other class I have ever taken. Once again, thank you Chris.

Yes, The class was awesome! I learned a lot and really enjoyed launching the satellite and getting data back. The class was really cool, pushing, I think everyone to their limits- and really seeing what I myself am capable of and what my piers are capable of as well.

Yes my expectations were met. Transferring into gateway from a regular projects class was the best thing I’ve done in college so far.

My expectations for this class were met. Before beginning, I did think it would be more of an all encompassing aerospace class, and not just astronautics, but that didn’t make a difference for me and I wanted to continue once I knew about that difference. I was hoping to learn a little more of the electronics and programming, and would have asked those member of our team if I could be involved in that area, but they were busy enough already and I didn’t want to slow them down. I am very pleased with my role in structures, as that is the path that I intend to follow through school and into my career.

This class was amazing. It was everything I had hoped for and more. I did not believe I had enough knowledge to do any type of project clearly, I was wrong. In addition to amount of fun I had in this class, our mission was a success, the perfect icing on the cake.
Yes, before I attended this class, I did not have a clear understanding about what engineering is, what engineering students do. I just thought aircrafts and spacecraft is cool and promising. After I worked with team members, I contributed my idea, I saw our satellite was finished, I knew it’s right I chose to be an engineering student. That’s what I expected. All in all, the answer is yes.

This class far exceeded my expectations and was a great deal of fun. I would warn anyone interested in the class that this class is the most work out of any class I have ever had. However, while the workload is intense, it is fun and exciting work, that is highly motivating, and rewarding.

I expected to spend multiple all-nighters, countless hours, and end up hating Gateway right before we launched. None of these things happened. The latest I stayed up was around 1 AM, on the night before launch. Perhaps it was the nature of our mission—all we really worried about was taking pictures, instead of building a Geiger Counter, or salt-dropping system—but I never felt extremely worried by this class.

However, I never expected to learn so much from Gateway. It can be rather difficult to express the lessons which I have learned over the course of the semester, so I will list the top few that come to mind.

I did not expect our Team Leader to put such a great amount of work into the satellite. I can honestly say that I am glad that Cory was not our team leader. Caleb did an excellent job for the entire semester, and I would work for him again without a second thought. I never expected there to be so many intermediate steps in the satellite design; all of the RFP’s and design documents and requirement lists caught me off guard, but I am glad that I was introduced to this aspect of Aerospace Engineering before Junior and Senior year. Before Gateway, I had pitifully little experience with types of engineering projects, and even less experience troubleshooting an entire system. I knew how to troubleshoot my computer by turning it off and on again, but I had no idea what to do with a whole functioning satellite.

One day, while we were messing around with the electrical connections, an LED suddenly died. We had no idea what went wrong. The entire system was wired correctly, had power, and was wrapped with electrical tape. It turned out that the LED leads, which were wrapped together with electrical tape, touched. I quickly fixed this problem, not knowing that this simple fix would be absolutely crucial in gathering data for the entire flight. Another startling encounter with the small things occurred when we weighed the satellite the night before it was due. It was grossly overweight, and no one knew why. I looked at the thick lines of hot glue on our satellite structure, realizing that that was a likely source of weight. After spending an hour melting glue with the soldering gun and scraping it away with a small piece of wood, I had reduced the weight of the satellite by over 100 grams. Gateway taught me to look for the small things. The finished product, whether it be a small satellite, or entire Space Station, is made up of millions of small things. Each small part is just as important as every other part, and a prudent engineer must train himself to look after each small part to create a perfectly integrated system.

My expectations for this class were exceeded in many different ways. I had three primary goals in this course, the first was to learn about the aerospace industry, the second to determine where I would specify in Aerospace and the third was to determine if this major was right for me. After completing this course I am not only more knowledgeable about this field but I have loved learning about every aspect of it. The focus that stood out to me was that of systems engineering. The idea of looking at one big system (or a small one) and figuring out how everything should work together is incredibly interesting to me. The class itself was much more of a challenge than I could have been prepared for. More so the working with a team of people, some of which you may not get along with rather than the work we did. While I did spend working many long nights on this project it had a great reward and even better
experience that I will be able to take with me and apply to the rest of my college career. I loved the material and the challenge and am more determined than ever to get a degree in Aerospace engineering after taking this course.

This was a very interesting class I have to say. I did enjoy the class for the most part, I found myself having a few difficulties though. My biggest issue had to the time commitment outside of class. Meeting with my team every week and at usually late hours was very difficult for me since I lived in Denver. Also adding in the weekend demands made it a little hard. Other than that I did enjoy the class.

My expectations were more than met. It was in fact way more work than I thought. I spent more hours on this class than any other class. It kept me from doing other homework and going PT.

My expectations for the class were definitely met. I had heard from many people that it would be hard, and it was, but nothing too chaotic. Time really is your enemy, but if you plan ahead, building the satellite really isn’t too bad. I also didn’t expect to enjoy working with my teammates so much, but I really liked my team and being a part of building something that actually worked! I also feel like I really grew as a person during the class, which is something I didn’t expect.

My expectations were met and exceeded this semester in Gateway to Space. At the start of the school year, all I really anticipated about the class is that I would be working on a cool project that was somehow related to space. What I didn’t expect, however, was to feel, at the end of everything, like somewhat of a real engineer. I was structure lead and contributed to other sub teams. I helped to assemble design documents and presentations to prove project-feasibility and flight-readiness. I tested and retested, collected and interpreted data with the rest of my team. All of these are some of what real engineers do every day, and this class has truly made me feel as if I am well on my way to a future in aerospace. So, needless to reiterate, this class went above and beyond my expectations.

My expectations for the class were not only met but also surpassed. I now have a much deeper understanding of how hard engineering and why that is. I wish I could take another class similar to this next semester work on my time management skills for a project of this caliber.

Yes, yes indeed. They were met, ran over, and threw in to the ditch by the 18 wheeler that is this class. I feel that even if this was the only class on my schedule it still would have been hard to do everything. But for every ounce of me that hated this class with a burning passion, there was a pound that loved it (wow, the clichés are just coming to me). This was my favorite class of this semester and most likely my freshman year. I have learned more in this course to prepare me for life then I think I will throughout college. Chris, you are amazing for thinking of and teaching this class.

Yes, I didn’t have a very clear idea on what my expectation were in the beginning but I feel like I have gotten much more out of this class than I expected. When I took the class, I knew that we would be sending a BalloonSat up to near space and that it would be a lot of work, but I never expected the all nighter and very little sleep nights that it would come with to complete presentation, design documents, and the satellite on time for launch. I also didn’t realize how much I would learn about working with a team. I have had small amounts of team work things before, but working with 7 other people on such a large project was kind of an eye opener to that style of working and learning and how well I am at interacting with this situation. It also was an eye opener for what kind of people there are. One of the main things that I in no way anticipated getting out the class was a feeling of having to figure things out on my own by using my resources. Often when I would ask a teammate to work on something, they would attempt it but then end up asking me how to do it or giving up and leaving me to do it anyway because they would not know how to do it. What I learned is when I hit this wall I needed to do more
research into it or ask an expert like Tim May for advice that I applied to what I was working on. I feel like this will be a valuable piece of knowledge for the rest of my life, as I previously have been able figure things out on my own almost all the time so far. The only piece that I wish I had gotten more about from this class was my personal decision on whether I would like to be more on the space or the aeronautics side of aerospace engineering. This class greatly increase my interest in space and in the Space Grant Program, but I am still torn a little bit with my love of planes and flying. As this class was clearly about space from the beginning, I was not totally expecting to figure out my interest from this because I have not seen much of the airplane side.

To be honest, yes. Despite not gathering data on most of our sensors, the class was still quite fun. The satellite was only half of it, and I still consider the mission a success. Getting to learn about the history of space, understanding how spacecraft operate and are built, and then actually sending something up, was what I wanted to do. I love to hear about space, and in taking this class I received exactly what I expected to.

My expectations for this class were most definitely exceeded. I had a great time building and launching our satellite, I just wish there was more time spent learning code because it was the downfall of our mission. This was an experience of a lifetime and a huge lesson learned on time management as well as team cohesion.

Yes, my expectations for this class were even surpassed. I went into this class expecting to learn how to build a satellite, but I was not expecting to have much interaction with my satellite. I was anticipating that I would build a satellite from a kit or an instruction manual and I would have no say in how the satellite would look. I was a little worried about the class after you told my team that a hand warmers experiment was childish, but once we got going with our speed of sound experiment, I feel confident moving forward in my education and future career. Thank you so much for teaching this course.

I honestly had no clear expectations going into this class, the classes that I have taken previously have always been either a hit or miss scenario. Like the rest, this class falls into one of these categories. HIT! I loved this class. Building the satellite was a lot of hard work, but it was very rewarding and fun to do. I also like the fact that I can now say I built and launched a satellite.

My expectations for this class were met. I expected to learn a little about a lot of different subjects in the aerospace field and I did.

They were met, I was expecting a challenge that I have never experienced before, and this class fulfilled that challenge perfectly.

My expectations for this class were most certainly met. This is the coolest class I have ever taken! While it was quite stressful at times, having a large team allowed us to distribute the various tasks we had to do to get our satellite working. I enjoyed many of the guest speakers and I learned a lot about aerospace engineering and what sorts of things I might do after graduation. Launch was also as expected, early in the morning, cold and fun! While the drive to Nebraska was not anticipated, it was worth it to find the satellite and look at the data right away.

Yes, my expectations for this class were met and exceeded. Not only did this class give me a very broad view of what aeronautics is, but it allowed me to integrate myself into the field as an aero-nautical engineer working with design and structures materials and testing. While also learning a great deal of programing and budgeting for projects, all of which will come in handy when senior year rolls around with the capstone project. While this class was daunting, and the work load was tremendous

ASEN/ASTR 2500 6 December 16, 2012
Gateway To Space – Message to Fall 2013 Students from Fall 2012 Students

considering the number of hours put in outside of class to construct the Balloonsatellite, the end reward and results were well worth it. I am glad I took this class, and I would take it again given the chance, probably with a more conscience mind of time management.

My expectations were met, and greatly exceeded. I expected a challenging class that would teach me a lot and be able to fly a satellite. I was definitely greatly challenged, the time spent on this class is ten times more than any other so far. But I learned a ton about the Arduino, late nights, and working with a team. Very good class, just make sure people know to start VERY early.

Yes, all of my expectations for the class were met. I enjoyed working hands on with the project, and I loved being part of a team. This class gave me a better idea of what it was like to be an actual engineer, and not just a student. I learned more than I thought I would about electronics, programming, and running a team.

My expectations were definitely met. I knew a fair amount of what this class was coming into it because my sister had taken it a few years before me. I took an electrical engineering class a semester ago and have since used the arduino for various things so I already knew a lot about those. So with that in mind, I didn't learn a whole lot in regards to the electrical side of things. I'm afraid the rest of my team didn't learn much with it either as there was one member who took over all that. Even though I had experience with them, I didn't touch any programming. What surprised me, was the real engineering work. Beyond just building a satellite, working with a team and writing up design documents and presenting our work was a totally new experience. This is what I wasn't quite expecting. I knew we worked on a team, but I had no idea what it really meant till I actually did it. It certainly comes with its very frustrating challenges. I'll say it's a heck of a lot better than working alone though. Having those people to lean on and get help from is wonderful when you run into obstacles. It was a lot of work but I wish I could do it all over again.

My expectations in this class were met. I expected it to be a lot of work and take up a lot of my free time. It was also an amazing experience that is hard to get anywhere else. I'm really glad I was able to take the class and would recommend it to other students. There were some times when I felt like the class was too hard and I wanted to get out, but in the end, all of those moments made the class what it is and truly enhanced my experience. Sometimes it is overwhelming, but if you push through those moments, the reward for all your hard work is amazing. I loved the launch and was so glad I was able to be part of something so cool.

This class met my expectations in a sense. I kind of expected more. Sure, building a BalloonSat was great, and some of the lectures were pretty fascinating, but I just thought we would learn more. More isn’t the right word; I thought we would learn different things, such as what is currently going on in the aerospace industry. Some of the lectures tried to touch on the subject, but you could really find out more on the internet (which, I guess, was somewhat the point of the class: learning to do things on your own.)

My expectations for the class were that we were going to make and fly a BallonSAT and yes, they were met. They were actually exceeded because we did a lot more than that too. We had guest speakers and lectures about rockets and orbits and we watched silly movies and we especially had donuts. I didn’t think this class would be so much work but at the same time so much fun. I truly am going to miss this class because I feel like it’s gotten me ready for what I’m going to be doing one day, so thanks.
My expectations for this class were met and exceeded. I expected a fast pace, and I quickly realized the class was moving even faster than I had imagined, but this was absolutely beneficial and worth the work I put into it. I was happy to gain experience with engineering, public speaking, and working with a team. As a whole, I had a very good team and we got along well for the most part. Unfortunately we had a team member who was absent frequently and did a poor job on his work, and who I actually had a hard time getting along with. I don’t need to go into details, but that was my something that aggravated me throughout the semester since I and the rest of the team were working very hard and he can now claim all sorts of credit for our work. I suppose the end result is a good lesson about teamwork. As for the engineering aspect of the class, I found it extremely worthwhile and I learned many things. I got basic experience with some electronics, structures, and scientific analysis. One of the very valuable lessons that I quickly learned was to give full effort toward everything in the class. Our team had an assumption that the first presentation would be a sort of participation grade, but we were surprised when we realized how seriously it was taken. From there, we stepped up our efforts and earned much higher grades throughout the rest of the semester. At times the project did get quite stressful. We had serious problems with our electronics, so in the end, only one of our Servos releasing salt was actually nothing to be disappointed about and we were very happy with the result. It was also nice working with other perfectionists, since not all of the tiny details fell on me which has happened in many of my past projects.

My expectations for this class were met. I learned a little bit about almost every subsystem in a satellite. Now I have a better idea of what aspect of Aerospace Engineering I am most interested in. Also, this class allowed me to obtain a position in the HASP team, and potentially grow my career form there. Finally, this class allowed me to add a very important and distinguishable line to my resume.

Every comment from last class said that this class was a ton of work and that I should be prepared to spend some late nights on this class. Hearing that made me excited. But only at that moment. When it was the third night in a row that I had less than 4 hours of sleep, and then pulling an all nighter two days before launch, I was cursing this class every moment. I definitely learned so many lessons, many that didn’t pertain to aerospace at all. Overall, I’m glad that I took this class, unless I don’t get an A. Then I’m going to be so upset...

- I was not sure what to expect for this class. I thought we were just learning about the subject of space in general. I had no idea that we would spend the whole semester constructing a payload and mission that would go to the edge of space! This class exceeded my expectations and was well worth all the time and effort I put in. I am more then glad that I was able to be apart of such a memorable experience and will definitely use what I have learned to help better my education in the future.

Yes, and exceeded. This was the best class I’ve ever taken and I have learned so much more than what I expected. I’m not trying to brown-nose: this is my honest opinion.

This class was better than I expected. I learned way more than I expected to and our experiment was good. We had no hardware/ software issues, we got all of our data, the crazy structure that we built held up and, we finished on time. There is not much else you could hope for.

My expectations for this class were definitely met! I know you may think that I am just saying this because I want to suck up to you so you will like me but I am not. I looked forward to this class every Tuesday and Thursday because I was excited about what we were going to learn about each day. At the beginning of the year, you told everyone that this was going to be a ton of work and that if we chose this class because we thought it would be easier than engineering projects class, then we should just leave
Gateway To Space – Message to Fall 2013 Students from Fall 2012 Students

now. I did not quite believe you on how much work you said it was, but you were right. I spent the majority of my time out of class working on this class. Don’t get me wrong, I had time for other classes, but I spent the most time on this class. But I believe this class set me on the right path to become a successful engineer because of the problems we had to work through in this class. I loved this class and you were the most fun and energetic teacher. I am going to miss your class next semester. Thank you for the experience and good luck on future Gateway classes!