

**Class # | Day | DTL | Topics | Assignments | Speakers**
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1 | 01-12-16 | T | 88 | Class Introduction and Pictures (So starts the rollercoaster) | HW 01 Assigned | Hanz Kochler & Chris Koehler
2 | 01-14-16 | R | 86 | spacecraft overview – (compressed) | HW 02 Assigned Spatial Visualization Assigned | Chris Koehler
3 | 01-19-16 | T | 81 | BalloonSat Overview + Request for Proposals: Functional Block Diagrams, Design Documents | HW 01 DUE | Chris Koehler
4 | 01-21-16 | R | 79 | HANDS-ON: Team Forming + Team Activity (Handouts/HW 02) | HW 02 & Spatial Vis. DUE | Chris Koehler
5 | 01-26-16 | T | 74 | Guest Lecture – “Solar System Exploration Mission” | Jim Paradise (Lockheed Martin)
6 | 01-28-16 | R | 72 | Catch Up Day + In-Class Team Time | HW 03 DUE | Chris Koehler
7 | 02-02-16 | T | 67 | Snow Day
8 | 02-03-16 | W | 66 | Reviews: Conceptual Design Review (CDDR) via YouTube | Presentations DUE 4:00 PM | All Teams
9 | 02-04-16 | R | 65 | HANDS-ON: soldering 101 (Build and Solder) | HW 04 Assigned | All Teams
10 | 02-08-16 | M | 64 | Proposals DUE 8:00 AM | All Teams
| 02-09-16 | T | 60 | HANDS-ON: Arduino – Part 1 (Type and Blink); <Arduinoedu> to teams today for HW 04> | HW 05 DUE | All Teams
11 | 02-11-16 | R | 58 | HANDS-ON: Arduino – Part II (Analog Sensors); All team members report for beginning of class | HW 06 Assigned | All Teams
12 | 02-16-16 | T | 53 | Requirements Flow Down Process + HELION Team | DD Rev A/B Assigned | Chris Koehler
13 | 02-18-16 | R | 51 | Guest Lecture – "Systems Engineering." | HW 07 DUE | Jessica Young (Lockheed Martin)
14 | 02-23-16 | T | 44 | Guest Lecture – “Spacecraft Thermal Analysis” | DD Rev C Assigned | Emily Brinsman (Lockheed Martin)
15 | 02-25-16 | R | 44 | Guest Lecture – “spacecraft Structures” | HW 07 DUE | Bruce Davis (Roccor)
16 | 03-01-16 | T | 39 | Reviews: Preliminary design Review (PDR) | Prepared and sent to chris by 6:00 AM | All Teams
17 | 03-03-16 | R | 37 | Guest Lecture – “Spacecraft Propulsion” | DD Rev A/B DUE 4:00 PM | Steve Herron (Lockheed Martin)
18 | 03-08-16 | T | 32 | Rocket History | MDI-semester Team Evaluations Assigned | Chris Koehler
19 | 03-10-16 | R | 30 | Launch Vehicles | Mid Semester Team Evaluations DUE | Chris Koehler
20 | 03-16-16 | T | 25 | Orbits and Mission Design – Part I | Service Approvals DUE | Chris Koehler
21 | 03-17-16 | R | 23 | HANDS-ON: In-Class Team Time – Bring hardware and questions. Chris will be setting the room and inspecting payloads | RFN Cards Assigned | All Teams
22 | 03-22-16 | T-R | 18 | Spring Break – NO CLASSES – Spring Break | All Teams
23 | 03-29-16 | T | 11 | Guest Lecture – “Spacecraft Attitude Determination and Control” | HW 09 DUE | Bradley Young (Lockheed Martin)
24 | 03-30-16 | R | 09 | HANDS-ON - In-Class Mission Simulation Test (ON for the whole class) | HW 07 DUE | All Teams
25 | 04-05-16 | T | 04 | Reviews: Launch Readiness Review (LRR) | LRR Presentations DUE 7:00 AM | All Teams
26 | 04-07-16 | R | 02 | Launch Recap | DD Rev C DUE 4:00 PM | All Teams
27 | 04-08-16 | F | 01 | Final BalloonSat Weigh-in and TURN IN. By appointment 9:00 AM to 2:00 PM at Chris’s Office DLC 276d | RFP Cards DUE | All Teams
28 | 04-09-16 | SAT | 00 | Launch Date: 6:00 AM at Windsor, Colorado (Leave Boulder at 4:45 AM) | Bad Weather Dates (04/10, 04/17, or 04/18) | All Teams
29 | 04-12-16 | T | 03 | Guest Lecture – “Have You Been To Mars?” + Launch Recap and Report and Data Analysis Guidance | DD Rev D Assigned | Joe Tanner (Cruiser)
30 | 04-14-16 | R | 05 | Reviews: Quick Look Post Launch Presentation | Presentations DUE 7:30 AM Bring Your Raw Flight Data | All Teams
31 | 04-19-16 | T | 10 | Guest Lecture – “The Next Big Thing in Space” | HW 10 Assigned | Dr. James Stuart
32 | 04-21-16 | R | 12 | Guest Lecture – “spacecraft Power” and Career Advice | Final Team Evaluations Assigned | Paul Anderson (Lockheed Martin)
33 | 04-23-16 | SAT | 14 | Reviews: ITLL Design Expo (8:00 AM – 1:00 PM) | I.D. draft of DD Rev D & Final Team Videos DUE @ Judging | All Teams
34 | 04-26-16 | T | 17 | Space Grant Opportunities, Class Survey, and Team Videos | ALL DATA DUE in class | Chris Koehler
35 | 04-26-16 | R | 17 | Reviews: Final Presentations | FINAL Presentations DUE at 4:00 PM | All Teams
36 | 04-28-16 | T | 19 | Final Class - Review and Discussion + Final Team Evaluations | Bring all hardware | HW 10 DUE | All Teams
37 | 05-02-16 | M | 23 | Reviews: Community Service Activity Presentations + Extra Credit Final Exam (time permitting) | FINAL DD Rev C DUE @ 4:00 PM | All Teams

**NOTES:** All “DUE” items are due electronically via email at profkoehler@gmail.com by class time unless otherwise stated above. Items submitted after class begins or past the specified time, will be late and subject to grade penalty. Files must be emailable or brought to Chris on USB driver before time due.

**All Subject lines of each email submitted for this course must follow the naming convention below:**

Homework = "HW XX Lastname FirstInitial" Example = HW 01 Armstrong N (Attachments shall be in MS Word)
Team Documents = "DD rev Team Number" Example = DD C Team 04 (Attachments shall be in MS Word)
Team Presentations = "Review Team Number" Example = CDR Team 04 (Attachments shall be in MS PowerPoint)
Failure to use this naming convention will result in your email be deleted by a SPAM filter and may result in no credit or late penalties.

1 Minute Reports are DUE each day at the end of class. Please use your assigned number and printed form for proper credit. Attendance will be taken during each lecture. It is your responsibility to find and sign the attendance sheet before the end of class. If you need anything, please send an email with the word “HELP” in the subject. Email will be routed to the top of my email inbox.
In this class, if you have a religious obligation, please notify me via email of your schedule conflict at least two weeks before the obligation.

Students and faculty each have responsibility for maintaining an appropriate learning environment. Those who fail to adhere to such behavioral standards may be subject to discipline. Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with differences of race, color, culture, religion, creed, politics, veteran's status, sexual orientation, gender, gender identity and gender expression, age, disability, and nationalities. Class rosters are provided to the instructor with the student's legal name. I will gladly honor your request to address you by an alternate name or gender pronoun. Please advise me of this preference early in the semester so that I may make appropriate changes to my records. For more information, see the policies on classroom behavior and the student code.

The University of Colorado Boulder (CU-Boulder) is committed to maintaining a positive learning, working, and living environment. CU-Boulder will not tolerate acts of discrimination or harassment based upon Protected Classes or related retaliation against or by any employee or student. For purposes of this CU-Boulder policy, "Protected Classes" refers to race, color, national origin, sex, pregnancy, age, disability, creed, religion, sexual orientation, gender identity, gender expression, veteran status, political affiliation or political philosophy. Individuals who believe they have been discriminated against should contact the Office of Institutional Equity and Compliance (OIEC) at 303-492-2127 or the Office of Student Conduct and Conflict Resolution (OSC) at 303-492-5550. Information about the OIEC, the above referenced policies, and the campus resources available to assist individuals regarding discrimination or harassment can be found at the OIEC website. The full policy on discrimination and harassment contains additional information.

All students of the University of Colorado at Boulder are responsible for knowing and adhering to the academic integrity policy of this institution. Violations of this policy may include: cheating, plagiarism, aid of academic dishonesty, fabrication, lying, bribery, and threatening behavior. All incidents of academic misconduct shall be reported to the Honor Code Council (honor@colorado.edu; 303-735-2273). Students who are found to be in violation of the academic integrity policy will be subject to both academic sanctions from the faculty member and non-academic sanctions (including but not limited to university probation, suspension, or expulsion). Additional information regarding the Honor Code policy can be found online and at the Honor Code Office.