

# AIR FORCE ROTC & AEROSPACE ENGINEERING – 4, 4.5 & 5 YEAR ACADEMIC PLANS = FALL 2014:

## PLAN 1 –

### Option 1 - if you are taking Calc 1 (APPM 1350) in the FALL:

<u>FALL FR</u>	<u>SPR FR</u>	<u>FALL SO</u>	<u>SPR SO</u>	<u>FALL JR</u>	<u>SPR JR</u>	<u>FALL SR</u>	<u>SPR SR</u>
APPM 1350-4	APPM 1360-4	ASEN 2001-4	ASEN 2003-5	ASEN 3111-4	ASEN 3128-4	ASEN 4013-3	UDHSS-3
CSCI 1320 - 4	PHYS 1110-4	ASEN 2002-4	ASEN 2004-5	ASEN 3112-4	ASEN 3200-4	ASEN 4018-4	ASEN 4028-4
GEEN 1400-3	LD HSS-3	APPM 2350-4	APPM 2360-4	ASEN 3113-4	ASEN 3300-4	AIRR 4010-3 (FE-2)	AIRR 4020-3 (UDHSS)
AIRR 1010-1	ASEN 1022-3	AIRR 2010-1	AIRR 2020-1	AIRR 3010-3 (PAE)	AIRR 3020-3 (FE-3)	ASEN 4138-3 (PAE)	PAE-3
GEEN 1500-1	<u>AIRR 1020-1</u>	<u>ASEN 2012-2</u>	<u>LDHSS-3</u>	<u>PHYS 1120-4</u>	<u>WRTG 3030-3</u>	<u>PAE-3</u>	<u>PAE-3</u>
<u>LDHSS-3</u>	15	15	18	19	18	16	16
16							

### Option 2- if you are taking Calc 2 (APPM 1360) in the FALL:

<u>FALL FR</u>	<u>SPR FR</u>	<u>FALL SO</u>	<u>SPR SO</u>	<u>FALL JR</u>	<u>SPR JR</u>	<u>FALL SR</u>	<u>SPR SR</u>
APPM 1360-4	APPM 2350-4	ASEN 2001-4	ASEN 2003-5	ASEN 3111-4	ASEN 3128-4	ASEN 4013-3	UDHSS-3
CSCI 1320 - 4	PHYS 1110-4	ASEN 2002-4	ASEN 2004-5	ASEN 3112-4	ASEN 3200-4	ASEN 4018-4	ASEN 4028-4
GEEN 1400-3	LD HSS-3	APPM 2360-4	PHYS 1120-4	ASEN 3113-4	ASEN 3300-4	AIRR 4010-3 (FE-2)	AIRR 4020-3 (UDHSS)
AIRR 1010-1	ASEN 1022-3	AIRR 2010-1	<u>AIRR 2020-1</u>	AIRR 3010-3 (PAE)	AIRR 3020-3 (FE-3)	ASEN 4138-3 (PAE)	PAE-3
GEEN 1500-1	<u>AIRR 1020-1</u>	<u>ASEN 2012-2</u>	15	<u>LDHSS-3</u>	<u>WRTG 3030-3</u>	<u>PAE-3</u>	<u>PAE-3</u>
<u>LDHSS-3</u>	15	15		18	18	16	16
16							

### Option 3 – if you are taking CALC 3 (APPM 2350) in the FALL:

<u>FALL FR</u>	<u>SPR FR</u>	<u>FALL SO</u>	<u>SPR SO</u>	<u>FALL JR</u>	<u>SPR JR</u>	<u>FALL SR</u>	<u>SPR SR</u>
APPM 2350-4	APPM 2360-4	ASEN 2001-4	ASEN 2003-5	ASEN 3111-4	ASEN 3128-4	ASEN 4013-3	UDHSS-3
CSCI 1320 - 4	PHYS 1110-4	ASEN 2002-4	ASEN 2004-5	ASEN 3112-4	ASEN 3200-4	ASEN 4018-4	ASEN 4028-4
GEEN 1400-3	LDHSS-3	LDHSS-3	PHYS 1120-4	ASEN 3113-4	ASEN 3300-4	AIRR 4010-3 (FE-2)	AIRR 4020-3 (UDHSS)
AIRR 1010-1	ASEN 1022-3	AIRR 2010-1	<u>AIRR 2020-1</u>	<u>AIRR 3010-3 (PAE)</u>	AIRR 3020-3 (FE-3)	ASEN 4138-3 (PAE)	PAE-3
GEEN 1500-1	<u>AIRR 1020-1</u>	<u>ASEN 2012-2</u>	15	15	<u>WRTG 3030-3</u>	<u>PAE-3</u>	<u>PAE-3</u>
<u>LDHSS-3</u>	15	14			18	16	16
16							

## PLAN 2

### Option 1 – if you are taking Pre-Calc for Engineers (APPM 1235) in the FALL:

<u>FALL FR</u>	<u>SPR FR</u>	<u>SUM FR</u>	<u>FALL SO</u>	<u>SPR SO</u>	<u>FALL JR</u>	<u>SPR JR</u>	<u>FALL SR</u>	<u>SPR SR</u>
APPM 1235-4	APPM 1350-4	APPM 1360-4	ASEN 2001-4	ASEN 2003-5	ASEN 3111-4	ASEN 3128-4	ASEN 4013-3	PAE-3
LDHSS-3	PHYS 1110-4		ASEN 2002-4	ASEN 2004-5	ASEN 3112-4	ASEN 3200-4	ASEN 4018-4	ASEN 4028-4
GEEN 1400-3	CSCI 1320 - 4		APPM 2350-4	APPM 2360-4	ASEN 3113-4	ASEN 3300-4	AIRR 4010-3 (FE-2)	AIRR 4020-3 (UDHSS)
AIRR 1010-1	LDHSS-3		AIRR 2010-1	AIRR 2020-1	AIRR 3010-3 (PAE)	AIRR 3020-3 (FE-3)	ASEN 4138-3 (PAE)	UDHSS-3
GEEN 1500-1	<u>AIRR 1020-1</u>		<u>ASEN 2012-2</u>	<u>ASEN 1022-3</u>	<u>PHYS 1120-4</u>	<u>WRTG 3030-3</u>	<u>PAE-3</u>	<u>PAE-3</u>
<u>LDHSS-3</u>	16		15	18	19	18	16	16
15								

### Option 2 – if you are taking Pre-Calc for Engineers (APPM 1235) in the FALL and can do the 5 year plan:

<u>FALL FR</u>	<u>SPR FR</u>	<u>FALL FR 2</u>	<u>SPR FR2</u>	<u>FALL SO</u>	<u>SPR SO</u>	<u>FALL JR</u>	<u>SPR JR</u>	<u>FALL SR</u>	<u>SPR SR</u>
APPM 1235-4	APPM 1350-4	APPM 1360-4	APPM 2350-4	ASEN 2001-4	ASEN 2003-5	ASEN 3111-4	ASEN 3128-4	ASEN 4013-3	FREE ELECTIVE-3
LDHSS-3	LDHSS-3	AIRR 2010-1	GEEN 2350-1	ASEN 2002-4	ASEN 2004-5	ASEN 3112-4	ASEN 3200-4	ASEN 4018-4	ASEN 4028-4
GEEN 1400-3	CSCI 1320 - 4	UDHSS-3	APPM 2450-1	APPM 2360-4	<u>PHYS 1120-4</u>	ASEN 3113-4	ASEN 3300-4	AIRR 4010-3	AIRR 4020-3
AIRR 1010-1	AIRR 1020-1	GEEN 1360-1	AIRR 2020-1	<u>ASEN 2012-2</u>	14	<u>AIRR 3010-3 (PAE)</u>	<u>AIRR 3020-3 (FE-2)</u>	ASEN 4138-3 (PAE)	ASEN 5148-3 (PAE)
GEEN 1500-1	GEEN 1350-1	<u>PHYS 1110-4</u>	ASEN 1022-3	14		15	15	<u>PAE-3</u>	<u>PAE-3</u>
<u>LDHSS-3</u>	<u>HUEN 1010-3 (UDWRTG)</u>	13	<u>UDHSS-3</u>					16	16
<b>15</b>	<b>16</b>		<b>13</b>						

**PLAN 3 – if you are taking APPM 1350 Calc 1 this Fall and have been approved for the 5 year plan:**

<u>FALL FR</u>	<u>SPR FR</u>	<u>FALL SO</u>	<u>SPR SO</u>	<u>FALL JR</u>	<u>SPR JR</u>	<u>FALL JR 2</u>	<u>SPR JR 2</u>	<u>FALL SR</u>	<u>SPR SR</u>
APPM 1350-4	APPM 1360-4	ASEN 2001-4	ASEN 2003-5	ASEN 3111-4	LDHSS-3	ASEN 3112-4	ASEN 3128-4	ASEN 4013-3	UDHSS-3
CSCI 1320 - 4	PHYS 1110-4	ASEN 2002-4	ASEN 2004-5	APPM 3350-3 (PAE)	APPM 3310-3 (PAE)	AIRR 3010-3	ASEN 3200-4	ASEN 4018-4	ASEN 4028-4
GEEN 1400-3	LD HSS-3	APPM 2350-4	APPM 2360-4	ASEN 3113-4	ASEN 3300-4	UDHSS-3	AIRR 3020-3	AIRR 4010-3	AIRR 4020-3
AIRR 1010-1	ASEN 1022-3	AIRR 2010-1	AIRR 2020-1	PHYS 1120-4	WRTG 3030-3	ATOC 1050-3 (FE)	ATOC 3180-3 (PAE)	ASEN 4138-3 (PAE)	ASEN 5148-3
GEEN 1500-1	<u>AIRR 1020-1</u>	<u>ASEN 2012-2</u>	15	15	13	13	14	<u>PAE-3</u>	13
<u>LDHSS-3</u>	15	15						16	

16

1. **You MUST complete the following prerequisite courses with a grade of C or better prior to taking ASEN 2001, 2002 & 2012 in Fall 2014. The required prerequisite courses are APPM 1350, APPM 1360, PHYS 1110 & Programming 1 (CSCI 1320). If you get a grade of C- or lower in any of these classes you must repeat it and get a grade of C or better prior to taking ASEN 2001, 2002 & 2012.**
2. **GEEN 1500 is a degree requirement for Aerospace. All ASEN freshmen MUST take GEEN 1500 in the fall semester of their freshman year.**
3. **Completing the Form 48:**
  - a. Please get the Course Titles from the ASEN Degree Sheet: <http://www.colorado.edu/aerospace/current-students/undergraduates/curriculum/course-sequence>. You'll need to get the AIRR course titles from the detachment.
  - b. If you have AP, IB or other university level transfer courses, please pull your Transfer Credit Report from MyCUInfo (Student Tab, Student Center, Drop Down Menu – select Transfer Credit Report) and copy & paste AP, IB & other transfer credit (Equivalent Course) and put it in the section at the top of the Form 48 – under transfer credit. To find out what degree requirements they count toward, please pull your degree audit (it can be found on MyCUInfo).
4. **LD HSS = Lower-Division Humanities/Social Sciences (9 credit hours). UD HSS = Upper- Division Humanities/Social Sciences (6 credit hours). All HSS courses MUST be from the approved list of HSS classes for engineering students: <http://www.colorado.edu/engineering/academics/policies/hss>**
5. **UD WRTG = Upper-division Writing Requirement (3 credit hours)** – options: WRTG 3030, WRTG 3035, HUEN 1010 (if taken in freshman year), HUEN 3100.
6. **PAE = Professional Area Electives (15 credit hours total).** PAEs are 3000, 4000 & 5000 level Math, Science & Engineering Courses. Here are some helpful PAEs for ASEN ROTC students. ASEN 4138 = Aircraft Design, ATOC 3180 Aviation Meteorology (prereq is ATOC 1050-3 which counts as a Free Elective). APPM 3350 Advanced Engineering Calculus is helpful for the fall junior level ASEN classes. APPM 3310 Matrix Methods is useful for all of the ASEN classes, especially for ASEN 3128 & 3200 and all of the graduate level ASEN classes (if you plan to do the BS/MS program). If you don't want to take APPM 3310 (it is a time consuming class) and do not plan to do the BS/MS or a MS, you can take MATH 3130 Intro to Linear Algebra instead. Both count as PAEs. For a full listing of approved PAEs, please pull your degree audit (can be found on MyCUInfo) or visit this site to download the list of approved PAEs: <http://www.colorado.edu/aerospace/current-students/undergraduates/faq>
7. **FE = Free Electives.** 5 credit hours total if you take CSCI 1320-4. You can use 5-6 hours of AIRR classes towards your Free Electives.
8. ASEN 1400 Gateway to Space, GEEN 1400 Engineering **Projects** & ECEN 1400 Intro Dig & Analog Electronics all meet the same requirement – you can take any of them. If you are a transfer student, please consult with Lauren Cole to get a full list of approved courses that fulfill this requirement as engineering projects courses are for first-year freshmen engineering students only.
9. CSCI 1320, ECEN 1310 C & MATLAB Programming for ECE, GEEN 1300 Intro to Engineering Computing & CSCI 1300 Programming 1 all meet the **programming course requirement**
10. If you are in Pre-Calc this fall (APPM 1235), you'll **need to take Calc 2 over the summer** in order to stay on track. APPM 1360 at CU-Boulder is typically during the months of June & July. If you take Calc 2 over the summer, we encourage you to get a tutor. All students who take summer classes outside of CU-Boulder must get the class pre-approved prior to taking it.
11. **The maximum hrs of ROTC you can use towards degree requirements = 6 hrs. Normally for AF students it is AIRR 3010-3 (PAE) & AIRR 4020-3 (UDHSS)**
12. **MAPS** - If you did not take 3 years of the same foreign language in high school (or 2 years of 2 different foreign languages), you have a MAPS deficiency in Foreign Language. Please connect with Lauren Cole to discuss your MAPS plan. You will need to complete either 3<sup>rd</sup> semester proficiency (i.e. SPAN 2110) or if you have 2 years of a foreign language from high school, you can take 2 semesters of a different foreign language here at CU-Boulder. Yes, all 1000 & 2000 level foreign language courses count as LDHSS.
13. If you are following the normal ASEN degree plan, we encourage you to **take PHYS 1120 the summer after your FR year** (this summer) so that you won't be at 19 hours in the fall of your Junior Year. PHYS 1120 is offered during the Summer Session during Term B (month of July). Or you can take it at a community college in Colorado (PHY 212).
14. If you are on scholarship and/or you contract with the AIR FORCE, you should get security clearance in your junior year. We encourage you to **apply for internships** for the summer after your junior year as this can greatly enhance your career in the military. One of our AIR FORCE students worked on the F-35 at his internship!!! One of our NAVY alumni who got pilot slot had an amazing internship at NGC and that enhanced his naval career.