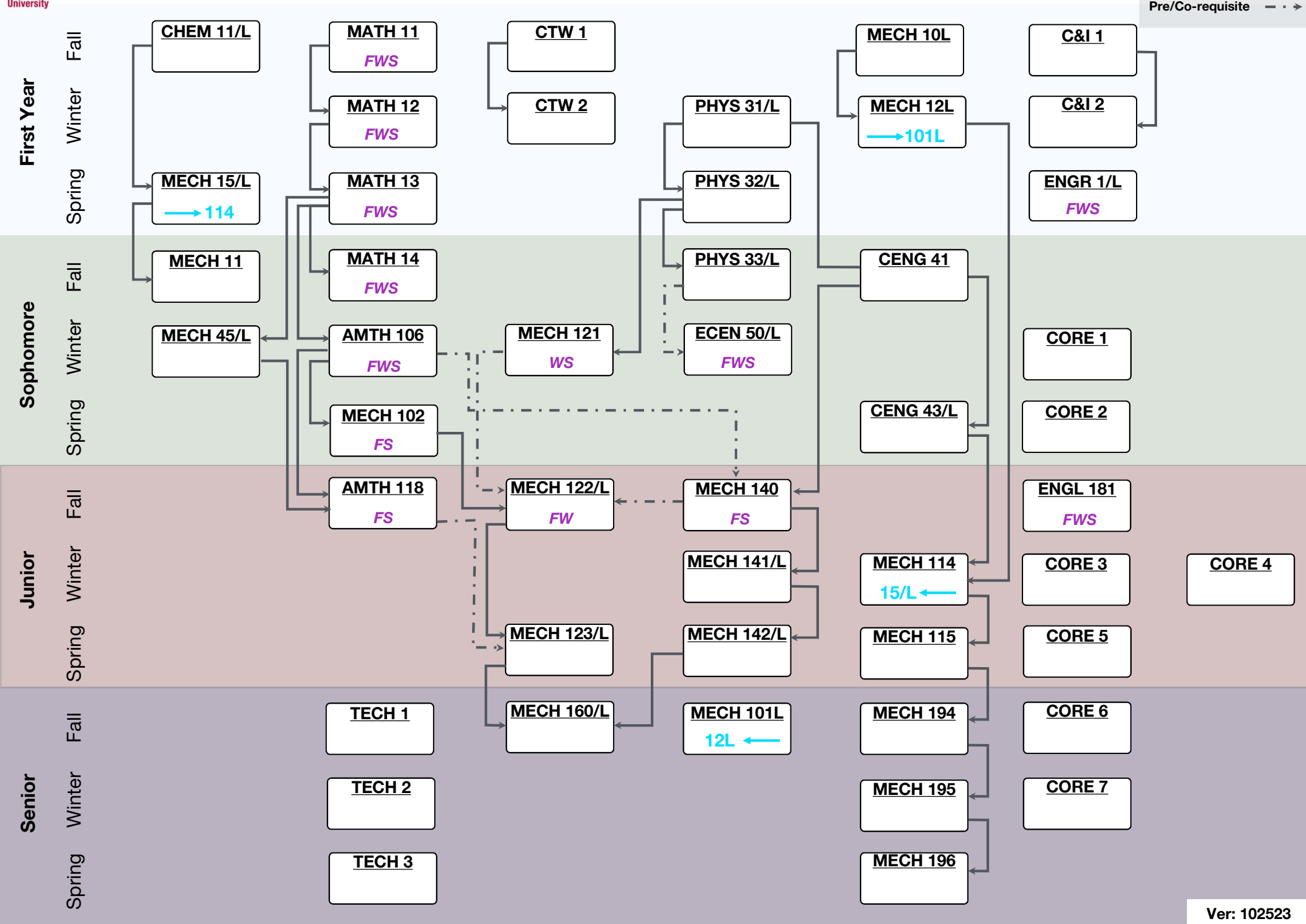
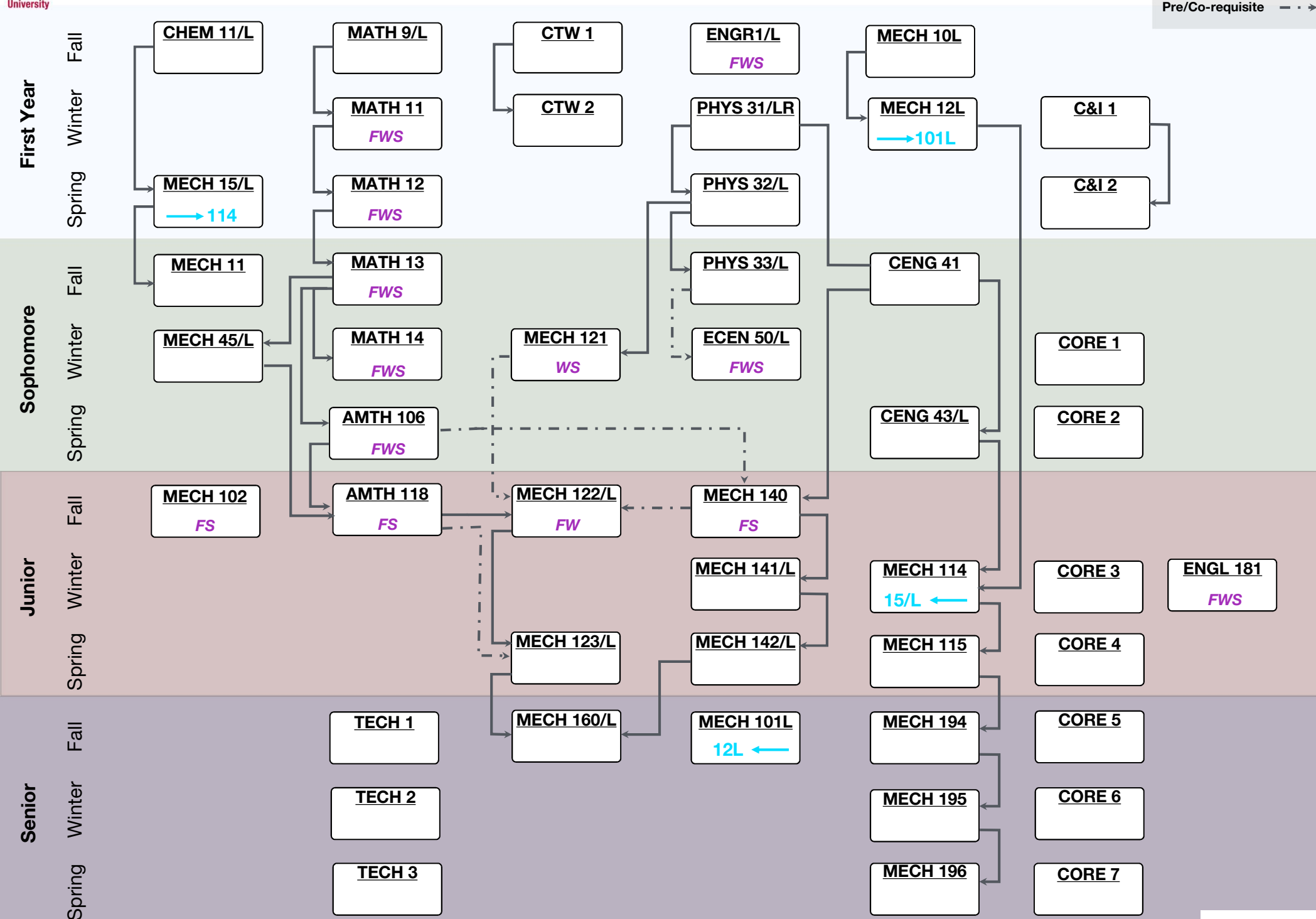
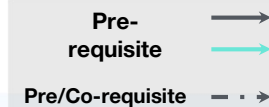


MECH Curriculum Flow Chart AY23-24: Class of 24/25

Pre-requisite →
Pre/Co-requisite - - →



MECH Curriculum Flow Chart AY23-24: Class of 24/25 (MATH 9)





Mechanical Engineering Curriculum Flow Chart

Additional Notes

Information in this document is superseded by the official policies in the Undergraduate Bulletin from the year of the start of the program at Santa Clara University.

ENGR 1/L

FWS

1. Students must meet prerequisites in order to take courses that are connected with arrows. Co-requisite courses can be taken in the same quarter, if they are available.
2. Courses denoted with **F**, **W**, and/or **S** are offered in fall, winter, and/or spring. However, if you wish to take any class in an alternative quarter, you **MUST** check with your advisor or appropriate department to verify that the class will be offered in the quarter. Most major courses are offered only once a year. We often offer MECH121 & MECH10L over the summer, but they can be canceled if enrollment is not large enough.
3. ECEN 50/L is recommended to be taken before MECH 123/L.
4. The prerequisites of MECH160/L are MECH123/L **“or”** MECH142/L
5. Graduation requirements include completing 192 units, satisfaction of the university core and department requirements, and **2.0** GPA, **overall** and in the **major** including math/science.
6. Ethics statement: The Department of Mechanical Engineering values academic integrity as described in the University policy. The learning derived from a course is based on student integrity and faculty support of a just learning environment. The faculty strive to enforce the policy and are open to any questions and discussion from the students. For deeper discussion and useful tips, it is suggested that all students read the information found at <https://www.scu.edu/academic-integrity/>

Core

The Santa Clara Core Curriculum consists of two phases of academic work designed to foster developmental learning and curricular coherence – Foundations and Explorations – and a third phase – Integrations – designed to help students make a connections among courses in the Core and between the Core and the major: For Core 1-7 and Technical Writing the student needs to satisfy the following requirements. For more details: <https://www.scu.edu/provost/core/>

1. Religion, Theology, and Culture 1, 2, 3 (three classes, one at each level). Engineering students are encouraged to take ENGR 16.
2. Social Science
3. Diversity
4. Cultures & Ideas 3
5. ELSJ, can be satisfied with an ELSJ milestone
6. Ethics. Engineering students are encouraged to take ENGR 19.
7. Technical Writing, ENGL 181, can be taken F junior year through W senior year.
8. Civic Engagement, Arts, and other requirements are satisfied through classes already required (e.g., ENGR1 & Senior Design); RTC 1 is recommended to be taken in first open core slot.
9. Pathways: clusters of courses with a common theme to promote integrative and intentional learning. Students should make reflective and intentional choices to study a theme from multiple disciplinary or methodological perspectives and to perceive connections. Engineering students need to take 3 pathway courses and keep their materials to write a pathway reflection and portfolio. For more details: <https://www.scu.edu/provost/core/integrations/pathways/>
10. Students must consult with one of the University advisors in the Drahnann Center before making any changes in their enrollment in the C&I and CTW sequences.

Do's & Don'ts

1. **Do not withdraw any course before talking to your academic advisor. Arrange a meeting with your academic advisor when you earn an F.** Send your **unavailable** time slots so that they can arrange a meeting with you. The purpose of the meeting is to advise you on the modified plans while attempting to keep your graduation within 4 year. Withdrawing does not necessarily lead to more than 4 years, but lack of communication is likely to lead to additional quarters or years.
2. The MECH curriculum is based on a strong foundation of math and science. The content that you learned in your first two years will appear repeatedly in upper-division MECH courses. Please exploit existing resources, such as office hours, tutoring, and the math learning center, in order to enhance your learning outcomes.
3. If a course is closed before your enrollment period starts, please reach out to the instructor as well as the chair of the department that offers the course. Include your grade for prerequisites courses and a screenshot of your tentative weekly schedule. Meanwhile, please try to find another course that fits your schedule.
4. Whenever you have concerns or questions, please reach out to your academic advisor or the department chair. We are here to help you!



Tentative Plans for Tech Electives in AY23-24

| | | | | | |
|--------|-------------------|-----------------|-----------------|-----------------|-----------------|
| Fall | MECH 151 | MECH 152 | MECH 153 | | |
| Winter | MECH 143/L | MECH 145 | MECH 171 | MECH 172 | MECH 177 |
| Spring | MECH 144/L | MECH 146 | MECH 157 | MECH 158 | MECH 172 |

The total 12 units of technical electives can be fulfilled by

1. Selected upper-division and graduate MECH courses, many of which are offered every other year.
2. Co-Op (up to 4 units): MECH 188 (2 units, Co-op Education) & MECH 189 (2 units, Co-op Technical Report)
3. MECH 199 (up to 8 units): Directed Research with a faculty advisor
4. Courses from other departments must receive a pre-approval from one's academic advisor and chair.

Math/Science Electives

1. Every student must take MECH102, unless you have performed B or better in MATH13, MATH14, and AMTH106
2. If your average performance in MATH13, MATH14, and AMTH106 is better than B, you can choose either a math/science elective or MECH102. I would recommend MATH53 (Linear Algebra) or AMTH108 (Probability and Statistics). If they are not available in the specific quarter, a math/science course that has your required math/science courses as a prerequisite is mostly a valid Math/science elective.
3. PHYS31R or MATH9L cannot be used as a math/science electives.
4. The last time that we offer MECH102 is Fall 2023. If you cannot take it by then, you will need to take MECH103/R to fulfill the requirement.

Study Abroad (In Fall of Junior Year)

| | | | | | |
|--------|--------|-----------------------|-------------------|---------------------------|-----------------|
| Junior | Fall | Study Abroad | | | |
| | Winter | MECH 122/L | MECH 141/L | MECH 114 15/L ← | ENGL 181 |
| | Spring | AMTH 118 FS | MECH 123/L | MECH 142/L | MECH 115 |