Santa Rosa Junior College
Organic Chemistry 12A-0293/0504
First semester Organic Chemistry
Lecture: TTh 9:00 am -10:30 am : Sections 0293/0504 **Room 1901**
Lab: TTh 12:00-3:00 pm **Section 0293** Room 1948
TTh 3:00-6:00 Pm **Section 0504** Room 1948-Instructor J Branca
Instructor: Jesse Tamayo
Email: Jtamayo@srjc.edu

Statement on Diversity: The Department of Chemistry & Physics at Santa Rosa Junior College is committed to creating an environment that is welcoming, supportive, mutually respectful to all, and is free from the barriers that have traditionally discouraged certain groups from full participation in our fields. We strive for excellence not only in teaching, but also in helping our students maximize their potential to succeed.

In person Lectures and Labs: The lectures and labs are held in person. There will not be any portion of this class held on zoom. That is unless the circumstances change in some way or other disasters hit.

Course Description: For students majoring in chemistry, biochemistry, chemical engineering, or a closely related field such as molecular and cell biology. The first semester of an intensive one-year program based upon modern theoretical concepts of organic chemistry. All aspects of fundamental organic chemistry are studied, including nomenclature, chemical and physical properties, reactions and synthesis. The study includes theoretical aspects, reaction mechanisms, and multistep synthesis. Students transferring to a four-year college or university are expected to complete this sequence prior to their junior year.

Chem 12A Course Outline: 5 units, 3 hours of Lecture per week with 6 hours of Lab scheduled. Grading: Letter grade only.

Prerequisites: Course Completion of CHEM 3B OR Course Completion of 4B.

Materials: 1. Brown's Organic Chemistry, 9th Edition ISBN is: 9780357451861 and the eBook ISBN is: 9780357452011.

Required: **2.** Lab manual: Understanding the Principles of Organic Chemistry: A Laboratory Course, Reprint, Myers
ISBN: 9781133173106
Laboratory materials: Lab apron, Lab googles, Lab notebook (required)

All of the items can be purchased at SRJC bookstore or online at a store of your choice.

Student Learning Outcomes: Upon completion of the course, students will be able to:

1. Identify and explain the basic concepts, terminology, and theories of organic chemistry and biochemistry.
2. Relate the molecular level structures of organic and biological compounds to their physical and chemical properties.
3. Propose appropriate synthetic routes for organic compounds, use reaction mechanisms to explain those routes, and modern analytical methods to analyze and identify the products.
4. Perform laboratory experiments safely and interpret observations in order to validate theoretical ideas.
5. Maintain laboratory notebook and complete written reports detailing conclusions based on the notebook record.

Objectives:

1. Predict and explain three-dimensional structures, including conformational changes, for organic compounds.
2. Name organic compounds.
3. Predict structures for products of organic reactions.
4. Predict and explain relative physical properties and reactivities of organic compounds.
5. Suggest appropriate methods for the syntheses of organic compounds.
6. Predict and explain mechanisms for organic reactions.
7. Make observations and apply chemical concepts in the laboratory.
8. Use common laboratory techniques to synthesize, isolate, purify, and identify organic compounds.
9. Analyze compounds by instrumental methods.

Topics and Scope

LECTURE MATERIAL

1. Bonding and structure of organic compounds
2. Alkanes, cycloalkanes and alkyl halides
3. Stereochemistry
4. Alkenes, alkynes and alcohols
5. Nucleophilic substitution and elimination reactions
6. Dienes and polyenes
7. Aromaticity and aromatic compounds
8. Spectroscopy

LABORATORY MATERIAL

1. Crystallization
2. Melting point determination
3. Spectroscopy
4. Distillations
5. Chromatography
6. Extraction

7. Nuclear magnetic resonance (NMR) spectroscopy
8. Infrared (IR) spectroscopy
9. Isolation of organic compounds
10. Synthesis of organic compounds
11. Structure determination
12. Maintaining a research-style laboratory notebook

Professor Jesse Tamayo: I once sat in the same chairs as you. I am a SRJC graduate and then transferred to UC-Davis using the TAG program. Believe me when I tell you that SRJC will prepare you for the rigor of a UC system. I am living proof that you can start here and end up anywhere you want to go. I spent many hours in the tutorial center, MESA, and in study groups learning organic chemistry. It is a challenge, but it can be done with the right amount of hard work. You control your own destiny. Believe in yourself.

Office hours: My office hours are [**MW 9-10:30 am, TTH 10:30-11 am]** and online by appointment only. Every student has one office hour obligation. Everyone must come in and speak with me about your first exam and we will discuss how you did and how you can improve. (There is always room for improvement even if you got an A!). This is part of your participation grade.

Grading:

89.5%-100% =A
79.5%-89.4%=B
68.0% -79.4%=C
59%-67.9%=D
0%-58%=F

Grade break down:

Lab reports:	10%
Misc Assignments (quizzes)	10%
Lecture exams: (3)	40 %
Lab exams (2)	10%
Lab Skill tech:	10%
Final Exam:	15%
Participation	5%

I will drop one lowest grade from **exams**, other than the final, **lab reports**, and **quizzes**.

Exams: There **are no makeup** exams or quizzes. Please plan accordingly if you think you may be absent.
Quizzes: At time throughout the semester there will be pop quizzes. If you are absent or late you will receive no credit. No makeups.
Lab reports: You will be assessed based on the quality of your writing in that you can effectively describe the chemistry that you observed in lab. An effective lab report explains in detail the relationship between collected data and theory.

Lab Skill tech: A grade based on your lab skills. How accurate your results are. How well your lab notebook is maintained. The quality of your experimentation and ability to troubleshoot experiments.

Class Participation: In this class, as I lecture I will call on students randomly throughout the class. Attendance and attention are vital for your learning and success in this course. Please do not miss or be consistently late to the class it is strongly advised to attend every lecture.

MISSING MORE THAN TWO LABS WILL RESULT IN AN "F" FOR THE ENTIRE COURSE, REGARDLESS OF THE STUDENT'S PERFORMANCE IN THE CLASS.
If you do not think you can make the requirements then please consider taking the class at another time to allow other students to take the course.

Important Dates:

Sunday, August 20, 2023	Last day to register/add semester length class without instructor's sig or add code
Sunday, August 27, 2023	Last day to drop semester length class and be eligible for a refund
Sunday, September 3, 2023	Last day to register/add semester length class with the instructor's sig or add code
Sunday, September 3, 2023	Last day to drop a semester length class without "W" symbol
Monday, Sept 4, 2023	**Labor Day Holiday (No classes, District closed)**
Tuesday, Sept 5, 2023	First Census Day
Sunday, Sept 17, 2023	Constitution Day and Citizenship Day (Classes will meet)
Friday, Sept 22, 2023	**Native American Day (No classes, District closed)**
Mon, Oct 16 - Sun, Nov 12,	Midterm progress indicators posted in student portal
Friday, Nov 10, 2023	**Veterans Day Holiday (No classes, District closed)**
Sunday, Nov 12, 2023	Last day to drop a semester length class with "W" symbol
Friday, Nov 24, 2023	**Pro. Dev 1/2 Flex Day (No classes or activities, District closed)**
Th, Nov 23 - Sun, Nov 26,	**Fall Break (No classes, District closed)**
Saturday, Dec 9 - Fri, Dec 15,	Final Examinations
Friday, Dec 15, 2023	Last day to opt for P/NP for a semester length class

Classroom Expectations and Norms: Organic chemistry is a difficult class because there is a lot of critical thinking to do in the class. Since this is 5 unit class the expectation is that a student spends 15 hours OUTSIDE of class studying the material per week. My experience has shown me that cramming for the exam the day before will not be the best way to experience lasting success in this class.
I highly recommend each student READS the lecture material before class to only familiarize yourself with the content. Then students COME to class to with some basic knowledge and hear about the material from the instructor. Finally, AFTER lecture you should review your notes and cross reference with the textbook. This is the BARE minimum each student should do. It is highly recommended to practice as many of the in book problems as possible. This is how you will get an A in this class.

ACCOMMODATIONS FOR STUDENTS WITH DISABILITIES:

If you need disability-related accommodations for this class, such as access to notes, test taking services, special furniture, etc., please provide the Authorization for Academic Accommodations (AAA letter) from the Disability Resources Department (DRD) to the instructor as soon as possible. You may speak with the instructor privately during office hours about your accommodations. Please contact DRD if you have not received authorization for accommodations. DRD is in the Bertolini Student Center on the Santa Rosa campus, and Jacobs Hall on the Petaluma Campus.

EMERGENCY EVACUATION PLAN:

In the event of an emergency during class that requires evacuation of the building, please leave the class immediately, but calmly. Our class will meet at _____ to make sure everyone got out of the building safely and to receive further instructions. (If the class is on a second or higher floor, provide clear directions to the stairs). If you are a student with a disability who may need assistance in an evacuation, please see me during my office hours as soon as possible so we can discuss an evacuation plan.

Title IX: Confidentiality and Responsible Employee Statement

Santa Rosa Junior College faculty are committed to helping create a safe and open learning environment for all students. If you (or someone you know) have experienced any form of sexual misconduct, including sexual assault, dating or domestic violence, or stalking, know that help and support are available. The College strongly encourages all members of the community to take action, seek support and report incidents of sexual misconduct to the Title IX Office. Please be aware that under Title IX of the Education Amendments of 1972, I am required to disclose information about such misconduct to the Title IX Office.

If you wish to speak to a confidential employee who does not have this reporting responsibility, you can contact Student Psychological Services (Santa Rosa Campus 707-524-1595/ Petaluma Campus 707-778-3919). For more information about reporting options and resources at Santa Rosa Junior College and the community, please visit https://titleix.santarosa.edu/.

STUDENT CONDUCT:

We will conduct ourselves in a manner which reflects our awareness of common standards of decency and the rights of others. All students are expected to know the Student Conduct Policy and adhere to it in this class. Students who violate the code may be suspended from 2 classes and may be referred to the Conduct Dean for discipline.

RESPECT:

The best way to learn is through active participation; therefore, we respect others when talking, by being on-time, listening actively, and being polite even when we disagree with another's viewpoint. Please turn off all electronic devices. If you use a laptop for note taking, please sit in the front row with the sound off. No food in class please.

ACADEMIC INTEGRITY:

I understand there are several online resources that have many of this schools lab reports already uploaded and you may feel tempted to copy and use them. DO NOT DO THIS. It is especially obvious when students use materials that instructors have already seen and even worse when two students in the same class do it at the same time. All written work is to be original; plagiarism of any kind will result in a failing grade on that assignment. Students who plagiarize or cheat may be suspended – for one or two class meetings by the instructor – and referred to the Conduct Dean for discipline sanction, in cases of egregious violation. Please see Policy 3.11 for Academic Integrity.

Counseling: Counseling is available to all students through the SRJC Counseling Department. They provide counseling, instruction, and services to assist students in attaining their educational, occupational, and personal/life goals. https://counseling.santarosa.edu/

Mathematics, Engineering, Science, Achievement (MESA): Academic advising, professional mentoring, academic assistance, drop in tutoring, small group study sessions and transfer counseling. https://mesa.santarosa.edu/

Financial Aid: SRJC can provide direction for financial aid. This includes scholarship programs, loans, and services for veterans and undocumented students. https://financialaid.santarosa.edu/

Transfer Center: Designed to meet the needs of students preparing to transfer to a bachelor degree program by providing accurate, up-to-date information. https://transfer.santarosa.edu/

Police: SRJC District Police provide uniformed safety escorts to walk you to your vehicle, class, office, or other area on campus. **Call 707-527-1000**

Disability Services: The Disability Resources Department (DRD) facilitates equal access for qualified students to community college education through services, academic accommodations, and educational assistance courses in accordance with state and federal law. Students with verified disabilities are encouraged to request services through this department. https://drd.santarosa.edu/ Bertolini Hall, 3rd Floor, Tel: (707) 527-4278

Lecture Schedule and lab schedule can be found in canvas.

Online tutoring at the SRJC tutorial center available through canvas. (Check hours on website.) https://college-skills.santarosa.edu/srjc-tutorial-centers

Exam schedule
Final exam Thursday, Dec. 15, 7 – 9:45am

Thur, Sept 14th, 2023, Lecture Exam #1
Thur, Oct 12th, 2023, Lab Exam #1
Thur, Oct 19th, 2023, Lecture Exam #2
Tues, Nov 21st, 2023, Lab Exam #2
Thur, Nov 30th, 2023, Lecture Exam #3

Any and all portions of this syllabus are subject to change.