**EGR456/EGR546** **Robotics-II**

**Spring 22 Syllabus**



**Section 1: Course Overview**

**Instructor Information**

**Instructor:** Sangram Redkar

**Email:** sredkar@asu.edu

**Phone:** 480-727-1129

**Office Hours:** by appointment

**Office Location:** Polytechnic Campus, Tech center 101B

**Course Description**

Design of robotic systems focusing on dynamics, modeling, and controlling a robot.

**Course Credit:** 3

**Class Meetings: https://asu.zoom.us/j/9888237001**

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| --- | --- | --- | --- |
| **Section(s)** | **Days** | **Time** | **Location** |
|  | T/Th | 6-7.15PM | PICHO150 |

**Enrollment Requirements**

EGR455



**Textbook & Course Materials**

Introduction to Multicopter Design and Control 1st ed. 2017 Edition

**Course Objectives:**

* The course will focus on understanding and analysis of aerial robotics system.
* An emphasis will be placed on software for robot simulation

**Student Learning Outcomes**

* Understand and apply robot kinematics/dynamics principles
* Understand system hardware-software design
* Using software tools for robotics

**Section 2: Course Policies**

**How to Succeed in this Course**

* Attend all of the face-to-face classroom sessions.
* Complete all pre-class preparation assignments and reading.
* Complete all post-class follow up assignments and reading.
* Participate in office hours.
* Check your ASU email regularly.
* Log in to the course website at least once each week.
* Communicate with your instructor.
* Create a study schedule so that you do not fall behind on assignments.
* Utilize additional instructional videos that could be helpful for absorbing course content, including those from YouTube and Khan Academy.

**Grading**

Please include the course’s grading breakdown here. This should be explicit (preferably as a table, not text) showing the percentage assigned to each item such as HW, exams, projects, etc. Check that percentages add to 100%.

Please also develop and include a grading scale. A sample scale is listed below.

|  |  |
| --- | --- |
| **Grade** | **Range** |
| A | 90 and above |
| B | 80 and above |
| C | 70 and above |
| D | 60 and above |
| E | 0 – 59 |

**Submitting Assignments**

All assignments, unless otherwise announced, MUST be submitted to the designated area of Canvas. Do not submit an assignment via email.

**Late or Missed Assignments**

Accommodations will be made for religious observances provided that students notify the instructor at the beginning of the semester concerning those dates. Students who expect to miss class due to officially university-sanctioned activities should inform the instructor early in the semester. Alternative arrangements will generally be made for any examinations and other graded in-class work affected by such absences. The preceding policies are based on [ACD 304–04](https://www.asu.edu/aad/manuals/acd/acd304-04.html), “Accommodation for Religious Practices” and [ACD 304–02](https://www.asu.edu/aad/manuals/acd/acd304-02.html), “Missed Classes Due to University-Sanctioned Activities.”

**Drop and Add Dates/Withdrawals**

This course adheres to a compressed schedule and may be part of a sequenced program, therefore, there is a limited timeline to [drop or add the course](https://students.asu.edu/drop-add). Consult with your advisor and notify your instructor to add or drop this course. If you are considering a withdrawal, review the following ASU policies: [Withdrawal from Classes](https://students.asu.edu/forms/withdrawal), [Medical/Compassionate Withdrawal](https://students.asu.edu/forms/medical-compassionate-withdrawal-request), and a [Grade of Incomplete](https://students.asu.edu/grades).

**Grade Appeals**

Grade disputes must first be addressed by discussing the situation with the instructor. If the dispute is not resolved with the instructor, the student may appeal to the department chair per the [University Policy for Student Appeal Procedures on Grades](https://catalog.asu.edu/appeal).

**Course Evaluation**

Students are expected to complete the course evaluation. The feedback provides valuable information to the instructor and the college and is used to improve student learning. Students are notified when the online evaluation form is available.

**Syllabus Disclaimer**

This syllabus is to be used as a guideline only. The information provided is a summary of topics to be covered in the class. Information contained in this document such as assignments, grading scales, due dates, office hours, required textbooks are subject to change. Students will be notified accordingly.

**Section 3: Class Schedule**

**Posted on Canvas**

**Section 4: University Policies**

**Classroom Behavior**

Cell phones and pagers must be turned off during class to avoid causing distractions. The use of recording devices is not permitted during class. Any violent or threatening conduct by an ASU student in this class will be reported to the ASU Police Department and the Office of the Dean of Students. See [SSM 104–02](https://www.asu.edu/aad/manuals/ssm/ssm104-02.html), “Handling Disruptive, Threatening, or Violent Individuals on Campus.”

**Academic Integrity & Copyright Laws**

One of the core topics of this course is academic integrity. You will be discussing it further throughout the course. ASU expects and requires all its students to act with honesty and integrity, and respect the rights of others in carrying out all academic assignments. Fulton Schools of Engineering takes academic integrity VERY seriously. The Fulton Honor Code will be discussed during a future class.

Students in this class must adhere to ASU’s academic integrity policy, which can be found at <https://provost.asu.edu/academic-integrity/policy>). Students are responsible for reviewing this policy and understanding each of the areas in which academic dishonesty can occur. In addition, all engineering students are expected to adhere to both the ASU Academic Integrity [Honor Code](https://provost.asu.edu/academic-integrity/honor-code) and the Fulton Schools of Engineering [Honor Code](https://engineering.asu.edu/ira-a-fulton-schools-of-engineering-honor-code/). All academic integrity violations will be reported to the Fulton Schools of Engineering Academic Integrity Office (AIO). The AIO maintains record of all violations and has access to academic integrity violations committed in all other ASU college/schools.

Course content, including lectures, are copyrighted materials and students may not share outside the class, upload to online websites not approved by the instructor, sell, or distribute course content or notes taken during the conduct of the course (see [ACD 304–06](https://www.asu.edu/aad/manuals/acd/acd304-06.html), “Commercial Note Taking Services” and ABOR Policy [5-308 F.14](https://public.azregents.edu/Policy%20Manual/5-308-Student%20Code%20of%20Conduct.pdf) for more information).

You must refrain from uploading to any course shell, discussion board, or website used by the course instructor or other course forum, material that is not the student's original work, unless the students first comply with all applicable copyright laws; faculty members reserve the right to delete materials on the grounds of suspected copyright infringement.

**Plagiarism**

Although ASU encourages collaboration between students, and faculty, in the sharing of ideas and experiences, individual work needs to represent the student's original thought and be distinguishably different from other students’ work. Copying from other people’s work in part or in whole will result in a ZERO grade for the whole work. Recurring plagiarism will result in obtaining an XE and reporting each student’s misconduct.

**Threatening Behavior Policy**

Students, faculty, staff, and other individuals do not have an unqualified right of access to university grounds, property, or services (see [SSM 104-02](https://www.asu.edu/aad/manuals/ssm/ssm104-02.html)). Interfering with the peaceful conduct of university-related business or activities or remaining on campus grounds after a request to leave may be considered a crime. All incidents and allegations of violent or threatening conduct by an ASU student (whether on- or off-campus) must be reported to the ASU Police Department (ASU PD) and the Office of the Dean of Students.

**Harassment and Sexual Discrimination**

Arizona State University is committed to providing an environment free of discrimination, harassment, or retaliation for the entire university community, including all students, faculty members, staff employees, and guests. ASU expressly prohibits discrimination, harassment, and retaliation by employees, students, contractors, or agents of the university based on any protected status: race, color, religion, sex, national origin, age, disability, veteran status, sexual orientation, gender identity, and genetic information.

Title IX is a federal law that provides that no person be excluded on the basis of sex from participation in, be denied benefits of, or be subjected to discrimination under any education program or activity.  Both Title IX and university policy make clear that sexual violence and harassment based on sex is prohibited.  An individual who believes they have been subjected to sexual violence or harassed on the basis of sex can seek support, including counseling and academic support, from the university.  If you or someone you know has been harassed on the basis of sex or sexually assaulted, you can find information and resources at <https://sexualviolenceprevention.asu.edu/faqs>.

As a mandated reporter, I am obligated to report any information I become aware of regarding alleged acts of sexual discrimination, including sexual violence and dating violence. ASU Counseling Services, <https://eoss.asu.edu/counseling>, is available if you wish discuss any concerns confidentially and privately.

**Disability Resources**

Any students who have special needs or need accommodations in this course are encouraged to communicate with me as soon as possible to make appropriate arrangements for these accommodations. The Americans with Disabilities Act (ADA) is a federal antidiscrimination statute that provides comprehensive civil rights protection for persons with disabilities. One element of this legislation requires that all qualified students with documented disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation please contact the Disability Resource Center (DRC) at ASU Polytechnic located in Student Affairs Quad # 4 or call 480-727-1039 / TTY: 480-727-1009. Please note that students who may need accommodations must register with the ASU Disability Resource Center and provide documentation of that registration to the instructor. Eligibility and documentation policies online: <http://www.asu.edu/studentaffairs/ed/drc/>

# Technical Support

* This course uses Canvas to deliver content. It can be accessed through MyASU at <http://my.asu.edu> or the Canvas home page at <https://myasucourses.asu.edu>
* To monitor the status of campus networks and services, visit the System Health Portal at <http://syshealth.asu.edu/>
* To contact the help desk call toll-free at 1-855-278-5080.