**SYLLABUS**

engr 2010 Introduction to engineering

SUMMER 2024

**Faculty**

Dr. Rauf Tailony

**Office Location**

Off Campus

Microsoft Teams

Rauf.Tailony@sgsc.edu

Douglas Campus

100 West College Park Drive

Douglas, GA 31533

**Office Hours**

Monday 12:00 – 5:00 pm

Tuesday 12:00 – 5:00 pm

Wednesday 8:00 – 1:00 pm

Thursday 8:00 – 1:00 pm

**Email** rauf.tailony@sgsc.edu

**Course Description from College Catalog**

Introduction to Engineering. Interpretation of the scope of engineering; introduction to engineering disciplines that form the basis for a variety of career opportunities; engineering design as creative problem solving; lessons from design failures; professionalism and ethics; introduction to problem solving.

**Required Material**

Introduction to Engineering | 1st edition

By Dr. Rauf Tailony

**Course Overview**  Engineering Fundamentals and Problem Solving presents a complete introduction to the engineering field and remains the most comprehensive course to introduce students to engineering. This course helps students developing the skills needed to solve open-ended problems in SI and customary units while presenting solutions in a logical manner. Students are introduced to subject areas, common to engineering disciplines, that require the application of fundamental engineering concepts.

**Course Objectives**

When you complete this course, you will be able to:

* Understand the role of engineering in the world
* Understand how to prepare for a meaningful engineering career
* Learn about the skills and abilities needed to pursue an engineering degree
* Realize the importance of engineering profession
* Identify the key steps in the design process
* Recall and explain the engineering method
* Apply general guidelines for problem solving
* Recognize the importance of interpreting technical data for engineering analysis and design

**Learning Outcomes**

At the end of this course, you will gain the skills to apply the knowledge of mathematics, science, and engineering, as well as problem-solving techniques, to solve engineering problems. Use tools to analyze and interpret data. Design a system, component, or process to meet desired needs within given constraints. Work collaboratively on a team. Define, formulate, and solve engineering problems. Demonstrate the understanding of professional and ethical responsibility by applying ethical principles and professional standards to making engineering decisions. Communicate effectively — both orally and in writing. Demonstrate an understanding of the impact of engineering solutions and actions in a global, economic, environmental, and societal context. Demonstrate the academic maturity and skills necessary to manage their time and use available resources, as necessary, to succeed in their coursework and to engage in lifelong learning. Use engineering tools to perform computations, analyze and plot data, and model a simple system as part of solving an engineering problem.

**Student Responsibilities**

**Micro Projects**

Students will be assigned a small project Bi-weekly to demonstrate the understanding of the covered material.

**Scientific Reading**

Students will be provided with scientific and engineering handouts to read and gain an updated knowledge about the trending topics.

**Grading Policies (Grade Distribution)**

|  |  |
| --- | --- |
| Micro Projects | 45% |
| Readings | 10% |
| Exam 1 | 20% |
| Exam 2 | 25% |

**Grading System**

The corresponding letter grade is given by the following table:

|  |  |
| --- | --- |
| A | ≥ 90% |
| B | **80-89%** |
| C | **70-79%** |
| D | **60-69%** |
| F | **≤ 59%** |

**Tentative Schedule**The listed schedule is subject to change. Changes will be announced in class and/or on Georgia VIEW

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Week | Date | Class Discussion | Reading/ Assignment | Writing/Problem Assignment |
| 1 | TBD | Introduction to Engineering  Career | Chapter 1 |  |
| 2 | TBD | Introduction to Engineering  Career | Chapter 1 | End of the Class |
| 3 | TBD | Engineering Skills | Chapter 2 |  |
| 4 | TBD | Engineering Skills | Chapter 2 | End of the Class |
| 3 | TBD | Principle of Engineering Design | Chapter 3 |  |
| 5 | TBD | Principle of Engineering Design | Chapter 3 | End of the Class |
| 6 | TBD | Principle of Engineering Design | Chapter 3 |  |
| 7 | TBD | Midterm Exam | Ch1-Ch3 |  |
| 8 | TBD | Engineering Problem Analysis | Chapter 4 | End of the Class |
| 9 | TBD | Engineering Problem Analysis | Chapter4 |  |
| 10 | TBD | Engineering Problem Analysis | Chapter 4 | End of the Class |
| 11 | TBD | Engineering Dimensions and Units | Chapter 5 |  |
| 12 | TBD | Engineering Dimensions and Units | Chapter 5 | End of the Class |
| 13 | TBD | Decision Making | Chapter 6 |  |
| 14 | TBD | Decision Making | Chapter 6 | End of the Class |
| 15 | TBD | Final Exam | Ch1-Ch6 |  |

**Policy on Late or Make-Up Work**

Equitability and fairness require that students all be held to the same standard when work is turned in late. Your instructor’s policy may be mandated by his or her Division policy or may be an individual policy. In either case, the policy will be strictly and evenly enforced.

**Attendance Policy**

Attending class regularly allows you to interact with instructors and other students in the learning process. **Students are responsible for attending class and for the material presented in all classes.** At the beginning of each semester, all instructors will inform students of policies regarding class absences. Instructors are responsible for counseling with students regarding the consequences of absences from classes or laboratories.

**Access Statement**

**SGSC Douglas Campus Syllabus Access Statement**

Students with a disability requiring reasonable classroom accommodations should see the instructor after class or make an appointment during office hours. Students planning to request accommodations for a disability must register with the [Office of Disability Services](http://www.sgsc.edu/future-students/disabilityservices.cms) in Room 217, Powell Hall, phone number 912-260-4435. Also students finding any content in this course inaccessible because of a disability should contact the instructor as soon as possible.

**SGSC Waycross Campus Syllabus Access Statement**

If you have a disability and require reasonable classroom accommodations, please see me after class or make an appointment during office hours. If you plan to request accommodations for a disability, please register with the [Office of Disability Services](http://www.sgsc.edu/future-students/disabilityservices.cms) in Room 130, Dye Building, phone number 912-449-7593 or 912-260-4435. Also, if you find that any content in this course is inaccessible because of your disability, please contact me as soon as possible.

**SGSC Entry Program @ VSU Syllabus Access Statement**

If you have a disability and require reasonable classroom accommodations, please see me after class or make an appointment during office hours. If you plan to request accommodations for a disability, please see [Valerie Webster](mailto:valerie.webster@sgsc.edu) in the SGSC Entry Program office, Entrance #9 of the University Center or contact the [SGC Disability Services Coordinator, Annette Nation](mailto:annette.nation@sgsc.edu), on the Douglas Campus at 912-260-4435. Also, if you find that any content in this course is inaccessible because of your disability, please contact me as soon as possible.

**Counseling Services**

The University System of Georgia has launched a program for all campuses that helps to expand mental health resources. With so many changes in the world and factors that compromise your health and wellness, we wanted to make sure that you had the support you needed, any time, any place. Whether you are on campus or studying from home, StayWell@SGSC is here for you.

StayWell@SGSC gives you 24/7 access to counselors and mental health resources to help you cope with concerns that vary from minor and manageable to severe.

With StayWell@SGSC here’s what you get:

* A 24/7/365 mental health support line for in-the-moment support and links to next steps, regardless of time of day or your location. Call us any time, any place at 833-855-0079.
* No cost Telehealth and in-person treatment sessions provided by a diverse network of licensed mental health clinicians. To learn about your options just call us at 833-855-0079
* Virtual Psychiatric Clinics to offer assessment and medication management. To learn about your options just call us at 833-855-0079
* Personal Student Navigators to assist with referral coordination and support.
* A Self-directed iCBT program designed exclusively for students. To get access to this program please contact the counseling center at 833-855-0079
* “The Wellness Hub” which includes an App and an online wellness magazine with educational content, self-help tools and resource links. To access the Wellness Hub or find the link to download the App.

Your wellbeing is our top concern. Our goal is to make sure you are happy and healthy as you are studying and preparing for the rest of your lives. If you or a friend is experiencing any mental health concerns, please do not hesitate to use one or more of the options above. We are always here for you. <https://www.sgsc.edu/life-at-sgsc/stay-well-at-sgsc>

**Library**

Assignments may be included requiring students to make use of the resources provided in and through the Library. It may require general library orientation or subject discipline resource instruction presentations to classes.

Library assistance and resources are available to assist students on two campuses: William S. Smith Library, Douglas campus, and the Waycross Campus Library located in the Administrative Building (A) on the Waycross campus.

Hours vary by location. Personal research assistance is provided by staff on both campuses to answer reference questions, assist with citation and works cited pages, develop search strategies and more. You can schedule a more in-depth in-person or virtual consultation with a librarian to get you started.

Locate print and more than 500,000 electronic books through the Gil-Find catalog and full-text articles and other content from the GALILEO virtual library from the Libraries’ home page.

Contact: 912 260-4335 (D), 912 449-7515 (W)

**Student Success Tutoring Services**

SGSC Douglas Campus

Powell Hall, Room 103

The Student Success Center offers various resources to assist SGSC students with their academic success. These resources are available to SGSC students at no charge and are located in **Powell Hall.**

* Course-specific peer tutoring for STEM and non-STEM courses
* Small and large group study sessions
* Academic skills workshops
* Resources on study skills, time management, note-taking, and learning strategies

Live, online tutoring is also available 24/7 in GeorgiaVIEW through tutor.com. For more information about any of the resources available, contact Andrew Williams, Senior Coordinator for Student Success, at [andrew.williams@sgsc.ed](mailto:andrew.williams@sgsc.ed)u or visit our webpage at <https://www.sgsc.edu/academics/academic-success>

SGSC Waycross Campus

Dye Building, 141

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SGSC Valdosta Entry Program at VSU

Academic Support Center

The Academic Support Center (ASC) offers various resources to assist students with their academic success. These resources are available to VSU and SGSC students and is found in Langdale Hall on the ground floor. The ASC offers course-specific peer tutoring, workshops, technology resources, and standardized exam assistance. For more information about any of the resources available through VSU, call 229.333.7570 or visit our webpage at [www.valdosta.edu/academics/student-success-center/](http://www.valdosta.edu/academics/student-success-center/).

Live, online tutoring is also available 24/7 in GeorgiaVIEW through tutor.com. For more information about tutor.com, contact Andrew Williams, Senior Coordinator for Student Success, at [andrew.williams@sgsc.ed](mailto:andrew.williams@sgsc.ed)u or visit our webpage at <https://www.sgsc.edu/academics/academic-success>

**Writing Center and Speaking Center**

The Writing and Speaking Center offers various resources to assist SGSC students. It is our mission to ensure effective writing and speech making across the curriculum. These resources are available to all SGSC students, faculty, and staff at no charge.

The Writing and Speaking Center is in Room 124 of Peterson Hall.

The Writing and Speaking Center offers faculty tutors from various disciplines to assist with course-specific writing assignments through every step of the writing process, from brainstorming to polishing the final draft. Additionally, we are available to help students with speech making to help prepare them for class presentations.

For more information about any of the resources we have available, contact Writing and Speaking Center Coordinator Mrs. Elisa Johnson at [elisa.johnson@sgsc.edu](mailto:elisa.johnson@sgsc.edu) or (912) 260-4309.

**Plagiarism**

Plagiarism involves two kinds of wrongdoing. Using another person’s ideas, information, or expressions without acknowledging that person’s work constitutes intellectual theft. Passing off another person’s ideas, information, or expressions as your own to get a better grade or gain some other advantage constitutes fraud. Examples of plagiarism include:

* Any quotation, **or even rewording, paraphrase, or summary of another person’s words**, thoughts, ideas, opinions, or theories without appropriate acknowledgement. This example would obviously include **any** copying and pasting material from any source, including the Internet, **regardless of to what degree**.
* The presentation in any form of another’s artistic, literary, scientific, or other creative work as one’s own.
* Allowing someone else to write one’s paper; copying, buying, or stealing either in part or in its entirety one’s paper from another source such as a book, an article, or the Internet.
* Appropriate acknowledgement includes, but is not limited to, quotation marks around quoted material and citation appropriate to the discipline. See the APA and MLA guidelines in the Hodges’ Harbrace Handbook (Glenn and Gray 552‐650), available in the campus bookstore.

The first time a student is caught plagiarizing will result in a zero for that assignment. Any other infractions will result in a F for the class.

**GeorgiaVIEW**

* **Username:** Your username is the first part of your email before the @ symbol.
* **Password:** Your current email password.

If you do not know your student email address, click on the [Student ID/Email Lookup](http://talon.sgsc.edu/student/Student_ID_Lookup/).

Having trouble accessing your online courses?  Submit a [GeorgiaVIEW trouble ticket](https://talon.sgsc.edu/help/" \t "_blank" \o "https://talon.sgsc.edu/help/).

Have a help question about GeorgiaVIEW, the D2L Help Desk is available to students and faculty 24/7.  If you need assistance anytime, go to [https://d2lhelp.view.usg.edu](https://d2lhelp.view.usg.edu/). You will have access to a knowledge base and under the section "Contact Support" you will find a phone support number.