



Coastal Bend COLLEGE

Administrative Master Syllabus

Cover Sheet

Purpose: The Administrative Master Syllabus provides a general course description, defines the required elements of the course, and establishes a faculty-driven foundation for course assessment to ensure continuous improvement in student learning, irrespective of the course timeframe, or mode of course delivery.

Course Title:

Course Prefix and Number:

THECB Approval Number (10 digit):

Department: Division:

Course Type: (check only one)

- Academic General Education Course (From ACGM but not a CBC Core Course)
- Academic CBC Core Course
- WECM Course (Special Topics or Unique Needs Course: Y or N)

Weekly Contact Hours (Lecture – Lab – External): - -

Course Catalog Description:

Study of the relationship between externally applied forces and internally induced stresses and the resulting deformations in structural materials.

Prerequisites/Co-requisites:

N/A

Approval: The contents of this document have been reviewed and are found to be accurate.

Prepared by (Content Expert): Digitally signed by Jack W. Young
Date: 2022.08.15 17:59:36 -05'00'

Reviewed by Director or Coordinator: Digitally signed by Macedonio Gonzalez
Date: 2022.08.15 19:49:38 -05'00'

Approved by Dean of CTE or NAH or TGE:



Coastal Bend COLLEGE

Master Course Syllabus

Course Name: ENTC 1323 Strength of Materials

Course Description: Study of the relationship between externally applied forces and internally induced stresses and the resulting deformations in structural materials.

Semester Hour Credit: 3

Lecture Hrs. per Week/Lab Hrs. per Week/External Hrs. per Week: This course consists of (2) lecture hours and (2) lab hours per week.

Curriculum Capacity:

Face-to-Face Lab 15
Online Lab 35
Face-to-Face Lecture 15
Online 35
Virtual Face-to-Face N/A
Interactive video (multi-locations) N/A
Hybrid 35
Clinical N/A

Recommended enrollment threshold:

Face-to-Face Lab 9
Online Lab 9
Face-to-Face Lecture 9
Online 9
Virtual Face-to-Face N/A
Interactive video (multi-locations) N/A
Hybrid 9
Clinical N/A

Textbook and/or other major required readings:

Title: Applied Strength of Materials
Author: Mott, (textbook)
Publisher: Prentice-Hall (textbook)
Edition: 5th edition (textbook)
ISBN: 978-0-13-236849-0 (textbook)

The Student Learning Outcomes for the course are the same regardless of modality or location.

**Course Outcomes
(WECM or LDACGM)**

Upon completion of this course the student will be able to:

1. Identify the principle behind moments of interrim
2. Explain the relationship between that principle and the shapes cross-sectional geometry and reference axis
3. Calculate the torsional shearing stress on a solid round shaft subjected to various torques and horsepower requirements

The following general education course competencies (TGE) or Marketable SCAN Skills (CTE/NAH) are addressed in this course: General education course competencies (TGE) or Marketable SCAN Skills (CTE/NAH) assessed are indicated with an asterisk *.

- **Mathematics** – using mathematics to solve problems
- **Active Listening** – Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times
- **Critical Thinking** – Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions, or approaches to problems
- **Reading Comprehension** – Understanding written sentences and paragraphs in work related documents
- **Writing** – Communicating effectively in writing as appropriate for the needs of the audience
- **Monitoring** – monitoring or assessing performance of yourself, other individuals, or organizations to make improvements or make corrective action
- **Time Management**- managing one's own time and the time of others

The following program student learning outcomes are assessed for this course:

- The student will utilize proper formulas to calculate and determine solutions for word problems.
- The student will listen to detailed instructions and translate that to solve the problems.
- The student will utilize critical thinking to solve design math problems by thinking and visualizing by sketching a free-body diagram.
- The student will communicate the solutions of the problems by drawing a good diagram and using the right formulas to solve it.
- The student will utilize skillful writing skills to translate the technical writing in the word problems and then solve them by sketching a graphic representation along with the solution of the problem.
- The student will develop a system of checking the work to ensure accuracy of the details of the solutions.
- The student will develop proficiency in drafting / drawing time and developing accurate solutions to applied math problems accurately to complete the overall project.

Evaluation Methods:

Drawings & Assignments
Tests
Attendance and Participation
Final Exam

Course Grading: Please see individualized instructor policies for course evaluation methods. Students will be assessed on the same measure across each discipline as per CBC guidelines.

Major Course Assignments and/or exams counting for at least 10% of a final course grade:

Drawings & Assignments 50%
Tests 15%
Attendance and Participation 10%
Final Exam 25%

Grade Scale:

A = 100-90
B = 89-80
C = 79-70
D = 69-60
F = 59 & below

Course Subject Matter Outline:

Chapters 1-3 Forces & Stresses of Materials including design stress and safety factors Chapter 13 Connections Chapter 4 Torque & Power Chapter 5 Shearing Forces and Bending Moments in beams
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Additional Course Requirements:

Class attendance is necessary. A student will be dropped if 3 consecutive absences are exceeded, or if 6 absences during the semester are exceeded.
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Class Attendance and Classroom Conduct Policies

Attendance Policy: Please see individualized instructor policies for attendance, which are pursuant to any related policy as outlined by the college handbook, financial aid agreements, or any other college related understanding (e.g., athletics, organizations).

Telephone Support: Toll Free: 866-722-2838 or Direct Line: 361-354-2508

I.T. Support Blackboard

<http://coastalbend.edu/it/>

IT Help Desk
1-361-354-2508

helpdesk@coastalbend.edu

Live Chat: Fall/Spring Hours: Monday - Thursday from 8 a.m. to 5 p.m. Summer Hours: Monday – Thursday from 7 a.m. to 6 p.m.

Tutoring Services: Coastal Bend College is committed to the academic success of all students enrolled at the college. A variety of services, including academic support, individual tutoring sessions, group tutoring sessions, and online tutoring, are available to students depending on the availability of tutors for the subject matter requested. All tutoring is provided at no cost to current CBC students who are currently enrolled at CBC. On-demand tutoring services are accessible 24 hours a day, seven days a week through the TutorMe platform, which may be accessed through your Blackboard account. To request a tutor, please complete the online tutor request form found at <http://www.coastalbend.edu/tutoring/> to submit your request. If you have any questions about tutoring programs, you can contact tutoring@coastalbend.edu.

Beeville	Alice	Kingsville	Pleasanton
3800 Charco Road Beeville, TX 78102 1-866-722-2838	704 Coyote Trail Alice, TX 78332 1-866-891-2981	1814 Brahma Blvd. Kingsville, TX 78363 1-866-262-1615	1411 Bensdale Pleasanton, TX 78064 1-866-361-4222

Grady C. Hogue Learning Resource Center (Library): Located on the Beeville campus, the operation hours are Monday - Friday from 8:00 a.m. to 5:00 p.m.

(Summer semesters will observe the CBC campus operation hours) For locations and hours of the CBC library in Alice, Kingsville, and Pleasanton sites please visit the library web page link below.

Grady C. Hogue Learning Resource Center (Library): <http://lrc.coastalbend.edu/about>

Financial Aid: Resources are available for students for financial aid, work study, and veteran benefits. For additional information, visit our website at <http://coastalbend.edu/finaid> or contact us at 361-354-2238. Office hours: Monday - Friday from 8:00 a.m. to 5:00 p.m.

ADA Statement: No qualified individual with a disability shall, by reason of such disability, be excluded from participation in or be denied the benefits of the services, programs, or activities of the College District, or be subjected to discrimination by the College District. Nor shall the College District exclude or otherwise deny equal services, programs, or activities to an individual because of the known disability of an individual with whom the individual is known to have a relationship or association. 42 U.S.C. 12132; 28 CFR 35.130(g). See at: [GA \(Legal\)](#)

Students with Disabilities: Please notify your instructor of any modification/adaptation you may require accommodating a disability-related need. You will need to provide documentation to the Director of Accessibility Services so the most appropriate accommodation can be determined. Specialized services are available through the Office of Accessibility Services (**OAS**) (SSB 4.104, 471-6259). For more information, please email oas@coastalbend.edu.

Scholastic Dishonesty: Each student is charged with notice and knowledge of the contents and provisions of Coastal Bend College's rules and regulations concerning student conduct. All students shall obey the law, show respect for properly constituted authority, and observe correct standards of conduct. Scholastic dishonesty shall constitute a violation of these rules and regulations and is punishable as prescribed by Coastal Bend College Policies FLB (Local) and FM (Local). Scholastic dishonesty shall include, but not be limited to, cheating on a test, plagiarism, and collusion. See at: [FLB \(Local\)](#) and [FM \(Local\)](#).

Use of E-mail for Official Correspondence to Students: All students should be familiar with the college's official email student notification policy. Students are expected to check their CBC email on a frequent and regular basis to stay current with college-related communications, recognizing that certain communications may be time-critical.

Copyright Law and Intellectual Property Rights Policy: Copyright is the right of an author, artist, composer, or other creator of a work of authorship to control the use of his or her work by others. Protection extends to literary works, musical works, dramatic works, pantomimes and choreographic works, pictorial and graphic works, sculpture, motion pictures and other audiovisual works, sound recordings and architectural works. Generally speaking, a copyrighted work may not be reproduced by others without the copyright owner's permission. The public display or performance of copyrighted works is similarly restricted. Generally, the unauthorized reproduction, performance or distribution of a copyrighted work is copyright infringement and may subject the infringer to civil and criminal penalties. The Fair Use Doctrine outlines exceptions to this Law and is outlined in Coastal Bend College Policy, [CT \(Legal\)](#).

Coastal Bend College, its faculty, students, and employees must comply with Copyright Law. Detailed information on Copyright Law and Intellectual Property Rights is available in Coastal Bend College Policy [CT \(Legal\)](#) and [CT \(Local\)](#).

Questions regarding this information should be directed to the Director of Library Services at: library@coastalbend.edu or the Office of Marketing and Public Relations at: socialmedia@coastalbend.edu.

Intellectual Property: Student /Third Party Works: Rights to copyrightable or patentable works created by a student or a third party, that is, not a College District employee, shall reside with the author/ creator. Detailed information on Copyright Law and Intellectual Property Rights is available in Coastal Bend College Policy [CT \(Legal\)](#) and [CT \(Local\)](#).

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NOTE: The College website (<http://coastalbend.edu>) Serves as the main source with the most current version of the Coastal Bend College Board Policies and the Coastal Bend College Catalog.

Student success is our number one priority at Coastal Bend College, and we realize that prompt, effective communication (such as emails, assignment feedback, discussion boards and announcements) plays a significant role in achieving that goal. It is vitally important that you have the proper contact information for your instructor. This should include their phone number, email address, and if applicable, their office number, and office hours. **Faculty schedules can be located online at <http://coastalbend.edu/hb2504/>** If you have any problems contacting your instructor, or do not receive a prompt response to your inquiries, please contact the Dean or Division Coordinator/Program Director as soon as possible. Their contact information is provided below:

Jarod Bleibdrey Dean of Career and Technical Education 361-354-2339 jbleibdrey@coastalbend.edu	Macedonio Gonzalez Coordinator of Industrial Workforce 361-354-2571 mgonzalez@coastalbend.edu
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We wish you all the best in your education and encourage you to contact us if you have any questions or concerns.

Keeping student success in sight, faculty in each of the courses will review the course information, including specific reading schedules, assignments, and testing information, with students during the first week of class.

Additionally, the course information will be posted to Blackboard.

This Master syllabus is subject to change due to unforeseen circumstances.