ME 27000 Basic Mechanics I
Spring 2025

Instructor	*Lecture time/room CRN/Section*	*Office Hrs (or Appt) Office/Phone*	*Email*
Jim Jones	MWF 9:30-10:20am/ME 1130 CRN 21463; Section 001 **(PWL)**	TTh 10:30-11:30am ME 2200; 494-5691	jonesjd@purdue.edu
Shirley Dyke	MWF 10:30-11:20am CRN 24419; Section 013 **(PWL)**	MW 9:30-10:30am Herrick 1014	sdyke@purdue.edu
Jim Jones	MWF 11:30-12:20pm/ME 1130 CRN 13841; Section 003 **(PWL)**	TTh 10:30-11:30am ME 2200; 494-5691	jonesjd@purdue.edu
Lily Krest	MWF 1:30-2:20pm/ME1130 CRN 13507, Section 005 **(PWL)**	MWF 2:30-3:30pm F 12:30-1:20pm ME 2147	ckrest@purdue.edu
Jim Jones	ME 270 Distance Learning CRN 12871; Section 004 **(PWL)**	TTh 10:30-11:30am ME 2200; 494-5691 **Remote**: Zoom – by Appt	jonesjd@purdue.edu
Austin McDonald	MWF 3:30-4:20pm Engr/Tech 202; CRN 29355; Section 015 **(PU-Indy)**	MWF 1:20-2:20pm. SL 260 E; 317-447-2742	mcdona20@purdue.edu

Course Blog: *https://www.purdue.edu/freeform/statics/*
A course blog is made available to you for the semester. This blog contains a threaded discussion component where you can seek assistance from fellow students in all sections of ME 270 as well as assist other students in answering their questions. In addition, the blog contains links to all material related to the course, including: course syllabus, homework problem statements, homework problem video solutions, solution videos for over 300 Lecturebook examples, material for exam preparation, and any additional information that your instructor will make available to you during the semester. It is recommended that you use threaded discussions on this blog for discussions with your peers in the course. The blog is preferable to something like GroupMe, since on the blog, instructors and TAs can become involved in the blog discussions for providing helpful direction on problem solving, whereas this is not possible on GroupMe. We ask that you follow two simple rules. One, be courteous to the other people using the blog, and, two, please do not provide complete solutions for homework problems in your blog discussions.

Course Lecturebook
ME 270 utilizes a workbook-style textbook (a "Lecturebook"): "*Statics: A Lecturebook, 2019 edition*" by Krousgrill, Rhoads and Gibert. The Lecturebook includes all of the necessary reading material for the course, including a large number of example problems and material that is supported by the course blog. The Lecturebook and course blog complement each other in providing you support in the course.

Course Description
Vector operations, forces and couples. Free body diagrams, equilibrium of particles and rigid bodies. Distributed forces. Centers of gravity and centroids. Friction. Trusses, frames, and machines. Internal reactions resulting from axial, shear, torsional, and bending loading. Stress and strain analyses and elementary failure criteria.

Prerequisites/Concurrent Prerequisites
Prerequisites: MA 16600 Analytical Geometry & Calculus II; PHYS 17200 Modern Mechanics
Concurrent Prerequisites – ENGR 13200 Transforming Ideas to Innovation II; MA 26100 Multivariate Calculus.

Course Outcomes
1. Develop an understanding of static equilibrium and stresses in statically-determinate structures and how to apply them to engineering systems.
2. Learn a systematic approach to problem solving.

3. Foster effective mathematical and graphical communication skills.

Classroom Environment (Not Applicable to Online/Distance Students)
We wish to encourage a professional classroom environment based on basic courtesy and mutual respect. To help achieve this environment, please arrive to class on time and come prepared to fully participate in class discussions. Please do not *sleep* in class, *text*, work on *other assignments*, or *leave class early* without permission (unless you are feeling ill). Such behaviors are disruptive to fellow classmates and disrespectful to your instructor.

Homework
Common homework sets will be used across all sections of ME 27000 and will be graded by TAs using a common grading rubric. There will be two HWs assigned for each period. However, only the one in **BOLD** will be required to be submitted. The other problem is just for added practice or review. The problem in **BOLD** will be graded in detail for 10 points. Homework (HW) must be submitted by 11:59pm (Eastern Time, pay close attention to the time differences) on the due date (i.e., homework assigned in a particular class is due at 11:59pm on the day of the next class period, unless otherwise posted). Please post your HW on Gradescope on the appropriate HW link using a **single** PDF file (you will be asked to prescribe which page(s) each problem is on in Gradescope). Each student will be awarded 10 points to make up for one missed HW submission, but otherwise late HW will not be accepted without personalized documentation from the DRC, the Dean of Students or a physician (i.e., a generic PUSH note is not sufficient). Please review your homework submission **after** it has been uploaded onto Gradescope to ensure that all work has been properly submitted. If for some reason you have problems posting your HW on Gradescope, please email the grader the PDF of your HW before the 11:59pm deadline with an explanation. If you have a problem converting your HW into a single PDF format, take a legible picture of your HW and email to the grader. Each of these accommodations should be rare occurrences. Opportunities for bonus credit toward your HW average will be made available by your instructor. Homework solutions will be posted on the blog shortly after they are due. Graders will strive to have your assignments graded by the class period following submission. If you are unable to submit the work on-time due to circumstances outside of your control, you may submit your work to your instructor with written documentation of the circumstances for consideration, but there are no promises.

Quizzes (Adaptations Subject to Instructor)
Any quizzes administered by your instructor will be unique to each section, but will make up only a small portion of the overall grade in ME 27000. A number of quizzes (individual or group) may be given throughout the semester to assist students in keeping up on the course material. The goals of the quizzes are to help students identify gaps in their understanding of the basic mechanics principles and provide an assessment of student competency. No quizzes will be administered in the Distance Section.

Exams
Common evening exams will be used across all sections of ME 27000. There will be two midterm exams and one final exam. Contact your instructor immediately if you are not able to make it to an exam. You will need documentation to support an excused absence from an exam. In the case of an excused absence on an exam, your final exam will count as your score for the exam you missed. Instructors will strive to have exams graded and returned within one week of the exam date.

Grades:
Course grades will be assigned on a straight scale: 97-100 A+; 93-97% A; 90-93% A-; 87-90% B+; 83-87% B; 80-83 B-; 77-80% C+; 73-77% C; 70-73% C-; 67-70% D+; 63-67% D; 60-63% D-; <60% F. The percentage breakdown for the components of our course grade are the follows:

1. *Homework (15%) and Quizzes (5%)*: 20% (for Asyn. Distance Section, HW = 20%)
   Two homework problems are assigned per lecture. Completed homework assignments are to be submitted to Gradescope by 11:59pm ET of the due date. Late homework will not be accepted.

Homework is to be turned in on engineering paper using the sample format provided below. Your work needs to be presented with a logical thought process and in a neat, easy-to-read style. Failure to do so can result in a loss of points in your homework grade.

2. *Mid-term and Final Exams*: 80%
   You will be given two mid-term exams and a comprehensive final exam during the scheduled University final exam period. At the end of the term, the average of the two mid-term exams will be compared with your final exam score. The higher of these two will be given 55% weighting and the lower of these will be given a 25% weighting in the computation of your course average from which your course grade is determined.

3. *Bonus Points*: Extra Credit
   Officially there are 37 homework assignments over the course of the semester. However, there will be several opportunities to earn Bonus Points. Specifically, students can earn two additional HW scores for completing the Mid-Semester Course and Instructor Evaluation, two additional HW scores for completing the End-of-Semester Course and Instructor Evaluations, and two additional HW scores for posting at least 8 quality Blog posts. These Bonus Points will be counted in the numerator but not the denominator meaning that your HW average can exceed 100%. (See the Course Blog instructions on page 11).

Tutorial Room (F2F Only)

The Tutorial Room will be available F2F M-F 10:30am-3:30pm. A TA will be available in ME 2138 (labeled Tutorial Room 2) for a one-on-one consultation during the F2F hours of operation. During the Tutorial Room hours, Blog questions and comments will also be monitored and addressed by the TA on duty as time permits. Our TAs will strive to provide timely answers to your questions as quickly as is reasonably possible. We strongly encourage you to take advantage of this valuable resource.

Office Hours

All instructors will also offer F2F Office Hours, as outlined in the instructor list provided above. Students are invited to attend any of the Office Hours for any of the ME 270 instructors. If you have conflicts during Office Hours (or are taking ME 270 remotely), you may request an appointment with your instructor at a mutually agreeable time (or on Zoom with Prof. Jones if you are a remote student).

Academic Honesty

Faculty and students working together can promote a fair and positive academic environment. All students are expected to conduct themselves in an ethical manner. Students are permitted to discuss homework assignments together, but should do their own work when preparing a problem solution (i.e., copying from a solution manual, an on-line resource such as Chegg, or another student's work is explicitly prohibited). Also, any access to assigned homework solutions and/or exam solutions (e.g., Chegg, or other sources) prior to submission will be considered an integrity violation. Furthermore, remember aiding and abetting others is also a form of cheating. Specifically, posting or allowing other students to see your completed assignments is a common form of aiding and abetting others and is explicitly prohibited. Finally, the use of GroupMe sites are discouraged. Rather, we encourage students to discuss homework on the ME 270 blog following the rules established for the blog. When students use GroupMe sites it raises suspicions about what they are hiding and lead to accusations of cheating. Likewise, all exams are to be completed without unauthorized assistance. Any student caught cheating on an assignment or exam will receive disciplinary action, up to and including receiving a grade of "F" for the course. In addition, documentation of the infraction will be forwarded to the Office of the Dean of Students (ODOS), which may result in additional disciplinary sanctions, up to and including separation from the University (specifically suspension or expulsion). All of us are equally responsible for ensuring a fair and positive environment. If you become aware of any dishonest activities, please report the infractions to me (anonymously if you prefer) and we will investigate the concerns. If there is sufficient evidence of academic dishonesty, we will take disciplinary action. Finally, remember if you are complicit in assisting a peer to cheat, you are equally guilty. Please take to heart Purdue's Honor Pledge:

"As a boilermaker pursuing academic excellence, I pledge to be honest and true in all that I do. Accountable together - we are Purdue."

Academic Integrity Statement: http://www.purdue.edu/purdue/about/integrity_statement.html
Code of Student Conduct: http://www.purdue.edu/studentregulations/student_conduct/regulations.html
Reports of cheating can be submitted through the ODOS website *(purdue.edu/odos),* by phone at 765-494-8778 or by email at integrity@purdue.edu.

Class Attendance (Not applicable to Distance Students)
Students registered for F2F sections are strongly encouraged to attend every class provided they are feeling well and not experiencing any symptoms of COVID-19. If a student falls ill or begins experiencing any symptoms of COVID-19, we ask that they immediately voluntarily suspend their F2F attendance. If able, we encourage students to check with their instructor and peers as a means to keep pace with the class while recovering. As appropriate, it would be desirable to seek a COVID-19 test prior to returning to class to avoid any transmission of the virus to peers or instructors. Finally, students should inform your instructor (via email) of any absence and the reason for your absence in advance of class so that they will be aware of your status, especially if you are requesting an absence to be excused.

Copyrighted Materials
Please note that the ME 270 Lecture Book, assigned Homework Problem Statements, Quizzes, and Exams are copyrighted materials and should not be sold, bartered or posted without the expressed written consent of the authors. Similarly, notes taken in class are considered to be "derivative works" of the instructor's presentations and materials and likewise should not be sold, bartered, or posted without consent. Students are permitted to use their notes for individual and/or group study or other non-commercial purposes reasonably rising up from enrollment in the course or the University generally.

Course Evaluations
Both mid-semester and end-of-semester course and instructor evaluations will be administered this semester. You will receive an official email from evaluation administrators with a link to the online evaluation site. You will have about a week to complete these evaluations. Your participation in this evaluation is an integral part of this course. Your feedback is vital to improving education at Purdue University. We strongly urge you to participate in the evaluation system. Your instructor may provide some modest incentive (extra credit) for your participation, but may require documentation.

Grief Absence
Occasionally, students experience a death in their family and are entitled to a time of bereavement according to University regulations. In such cases, students are strongly encouraged to contact the Office of the Dean of Students for assistance in documenting the incident and contacting all of their instructors. The official regulations regarding the University Grief Policy can be found at the following link: https://www.purdue.edu/odos/sac/grief-absence-policy-for-students/

Campus Emergencies
In the event of a major campus emergency (e.g., severe weather, active shooter, etc.), course requirements, deadlines and grading percentages are subject to changes that may be necessitated by a revised semester calendar or other circumstances. The School of Mechanical Engineering will provide details regarding access to information online and any additional procedures that may be needed as soon as they are available or can be obtained by contacting the instructors or TAs via mail or phone. You are expected to read your @purdue.edu email on a frequent basis.

Violent Behavior Policy

Purdue University is committed to providing a safe and secure campus environment for members of the university community. Purdue strives to create an educational environment for students and a work environment for employees that promote educational and career goals. Violent Behavior impedes such goals. Therefore, Violent Behavior is prohibited in or on any University Facility or while participating in any university activity. For details of Purdue's policy go to the following link: http://www.purdue.edu/policies/facilities-safety/iva3.html

Students with Disabilities

If you have a disability that requires special academic accommodation, please make an appointment to speak with your instructor within the first week of the semester in order to discuss any adjustments and bring your accommodation letter from the Disability Resource Center. It is important that we are informed about this at the beginning of the semester. It is the student's responsibility to notify the Disability Resource Center (http://www.purdue.edu/drc) of an impairment/condition that may require accommodations and/or classroom modifications. If a student does not notify their instructor well in advance about the need for accommodations, there may not be time to arrange some accommodations.

Nondiscrimination Policy

Purdue University is committed to maintaining a community which recognizes and values the inherent worth and dignity of every person; fosters tolerance, sensitivity, understanding, and mutual respect among its members; and encourages each individual to strive to reach his or her own potential. For details, see the link below: http://www.purdue.edu/dfa/consumerinfo/nondiscrimination.php

Counseling and Psychological Services (CAPS) Information

Purdue University is committed to advancing the mental health and well-being of its students. If you or someone you know is feeling overwhelmed, depressed, and/or in need of support, services are available. For assistance, please contact Counseling and Psychological Services (CAPS) at (765) 494-6995 and http://www.purdue.edu/caps/ during and after hours, on weekends and holidays, or through its counselors physically located in the Purdue University Student Health Center (PUSH) during business hours.

ME 27000
BASIC MECHANICS I

Course Outcomes [Related ME Program Outcomes in brackets]

1. Develop an understanding of *static equilibrium* and *stresses in statically determinate structures* and how to apply them to engineering systems. [A1, A2]
2. Learn a systematic approach to *problem solving*. [A2]
3. Foster effective mathematical and graphical *communication skills*. [B1]

Statics of Rigid Bodies (9 wks)

Stresses in Statically-Determinate Structures (6 wks)

Fundamentals (2 wks)

1. Newton's Laws
2. Vector algebra; vector components
3. Position, unit and force vectors
4. Dot product
5. Cross product
6. Moment of a force about a point

Static Equilibrium (5 wks)

1. Equilibrium of a particle
2. Support reactions and free body diagrams
3. Static indeterminacy and partial constraints
4. 2-D and 3-D static equilibrium
5. Trusses
   - method of joints
   - method of sections
6. Frames and machines
7. Dry friction
   - Coulomb's Laws
   - Systems with friction
   - Sliding or tipping
   - Wedges

Equivalent Systems (2 wks)

1. Determination of the resultant of concurrent forces
2. Equivalent force/couple systems
3. Centroid and center of mass
   - by composite parts
   - by integration
4. Surface loadings
   - line loads
   - pressure distributions
5. Fluid statics
   - rectangular surfaces

Introduction of Stress and Strain in Materials (1 wk)

1. Basic definitions of stress and strain
2. Mechanical properties of materials
3. Shear stress and strain

Stress Analysis (5 wks)

1. Stress due to axial loading
2. Shear stress due to torsion
3. Shear force and moment diagrams
4. Second area moments for beams
5. Flexural stresses in beams
6. Stress analysis of beams

ME 270 – Basic Mechanics I

Spring 2025

Period		Date	Topic	Reading	Homework
			STATICS		
1	M	Jan. 13	Introduction, Unit Conversions	1.A-F	
2	W	Jan. 15	Position, Unit, and Force Vectors	2.A-B	H2.A, **H2.B**
3	F	Jan. 17	Dot Product	2.C	H3.A, **H3.B**
B	M	Jan. 20	**Martin Luther King Jr. Day**		
4	W	Jan. 22	Particle Equilibrium (2-D)	3.A-E	**H4.A**, H4.B
5	F	Jan. 24	Particle Equilibrium (3-D)	3.A-E	H5.A, **H5.B**
6	M	Jan. 27	Moment About a Point	4.A-B	H6.A, **H6.B**
7	W	Jan. 29	Force Couples, Equivalent Systems	5.A-B	H7.A, **H7.B**
8	F	Jan. 31	Free Body Diagrams; Equilibrium of Rigid Bodies (2-D)	4.C-D	H8.A, **H8.B**
9	M	Feb. 3	Equilibrium of Rigid Bodies (2-D)	4.E-F	H9.A, **H9.B**
10	W	Feb. 5	Equilibrium of Rigid Bodies (3-D)	4.E-F	H10.A, **H10.B**
11	F	Feb. 7	Equilibrium of Rigid Bodies (3-D)	4.E-F	H11.A, **H11.B**
12	M	Feb. 10	Distributed Loading	5.D	H12.A, **H12.B**
13	W	Feb. 12	Centers of Mass of Centroids: By Composite Parts	5.C	**H13.A**, H13.B
14	F	Feb. 14	Centers of Mass of Centroids: By Integration	5.C	H14.A, **H14.B**
15	M	Feb. 17	Fluid Statics: Buoyancy	5.E-F	**H15.A**, H15.B
16	W	Feb. 19	Fluid Statics: Hydrostatic Loads	5.E-G	**H16.A**, H16.B
17	F	Feb. 21	Friction: General	6.A-B	H17.A, **H17.B**
R	M	Feb. 24	**REVIEW FOR EXAM 1**	**Ch. 1-5**	**None Assigned**
18	W	Feb. 26	Friction: Slipping and Tipping	6.C	H18.A, **H18.B**
E	Th	Feb. 27	**EXAM 1 (8:00-9:30PM); (Covers Lectures 1-16)**	**Location**	**TBD**
B	F	Feb. 28	**NO LECTURE**		
19	M	Mar. 3	Friction Flat Belts	6.D	H19.A**, H19.B**
20	W	Feb. 5	Friction: Wedges	6.E-F	**H20.A**, H20.B
21	F	Mar. 7	Trusses: Method of Joints	7.A-C	**H21.A**, H21.B
22	M	Mar. 10	Trusses: Method of Sections	7.E	**H22.A**, H22.B
23	W	Mar. 12	Trusses: Zero-Force Members	7.D	**H23.A**, H23.B
24	F	Mar. 14	Frames and Machines: Simple Systems	8.A-D	**H24.A**, H24.B

Period		Date	Topic	Reading	Homework
B	M	Mar. 17	**SPRING BREAK**		
B	W	Mar. 19	**SPRING BREAK**		
B	F	Mar. 21	**SPRING BREAK**		
25	M	Mar. 24	Frames and Machines: Simple Systems	8.A-D	**H25.A**, H25.B
26	W	Mar. 26	Internal Force/Couple Analysis	9.A	**H26.A**, H26.B
27	F	Mar. 28	Shear Force and Bending Moment Diagrams (Pt. Loads)	9.B	**H27.A**, H27.B
R	M	Mar. 31	**REVIEW FOR EXAM 2**	**Ch. 6-9**	**None Assigned**
28	W	Apr. 2	Shear Force and Bending Moment Diagrams (Dist. Loads)	9.B	H28.A, **H28.B**
E	Th	Apr. 3	**EXAM 2 (8:00 – 9:30 PM); (Covers Lectures 17-25)**	**Location**	**TBD**
B	F	Apr. 4	**NO LECTURE**		
29	M	Apr. 7	Shear Force and Bending Moment Diagrams (Graph. Meth.)	9.B-D	**H29.A**, H29.B
30	W	Apr. 9	Stress-Strain Curves; Axial Stress and Strain	10.A-D	**H30.A**, H30.B
31	F	Apr. 11	Axial Stress and Strain; Factor of Safety	10.D-E	H31.A, **H31.B**
32	M	Apr. 14	Shear Stress and Strain	11.A-D	**H32.A**, H32.B
33	W	Apr. 16	Shear Stress Due to Torsion in Circular and Tubular Shafts	11.E	H33.A, **H33.B**
34	F	Apr. 18	Shear Stress Due to Torsion in Circular and Tubular Shafts	11.E	H34.A, **H34.B**
35	M	Apr. 21	Bending Stresses in Beams	12.A	H35.A, **H35.B**
36	W	Apr. 23	Bending Stresses in Beams	12.A	**H36.A**, H36.B
37	F	Apr. 25	Second Moments of Area: By Composite Parts	12.B	**H37.A**, H37.B
38	M	Apr. 28	Second Moments of Area: By Integration	12.B	No HW Assigned
R	W	Apr. 30	**Review for Final Exam**	Ch. 1-12	Practice Exams
R	F	May 2	**Review for Final Exam**	Ch. 1-12	Practice Exams
E			**FINAL EXAM (May 5-May 10; details TBD); (Covers Lectures 1-38)**		

Coding: Integer = Lecture number; B = Break; E = Exam; R = Review lecture. HWs in **BOLD** are to be submitted for credit. The UNBOLDED HWs are for added review at your discretion. Homework numbers correspond to lecture numbers. Review lectures do not increase counter. Homework is due the class period after it is assigned.

TEXT - ME 270 textbook ("*Statics: A Lecturebook, 2019 Edition*" by Krousgrill, Rhoads and Gibert) is available through the University Bookstore.

ME 270 BLOG - For instructions on using the blog see page 11 for blog instructions. Once you have access to the blog, you can adjust your email settings to receive all, some or none of the posting, as according to your preference.

Your Name (Last, First, Middle) Problem Number Date

Given: concise statement (in your own words) of the information given.

Find: concise statement (in your own words) of the information sought.

Solution:

- Draw a schematic (where appropriate, a free body diagram) of the system and label appropriate coordinate axes. Use a straight edge whenever possible.
- State mathematical formulation of basic laws or definitions to be used.
- State your initial assumptions.
- Beginning with the basic equations, carry through the analysis, simplifying as far as possible before substituting in numbers.
- Substitute in numerical values (using a consistent set of units) to obtain numerical answers.
- Check your answers to be sure that they are reasonable.
- Label your answers and include appropriate units with the answers.
- Use "over bar" notation for all vectors appearing in your solution; e.g., $\bar{F}$.

NOTE:

[1] Work problems directly on the sheet to be turned in. Give all the details of calculations.

[2] Neat work will help in avoiding careless errors (Mars Climate Orbitor).

[3] Use Engineering Grid Paper for all homework problems.

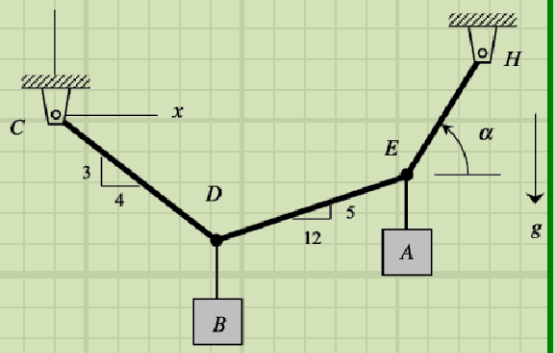
[4] One problem per page working on just the light side of the paper.

[5] Make sure your name, problem number, date, etc. appears on all pages.

Your Full Name	Problem H3.B	Date

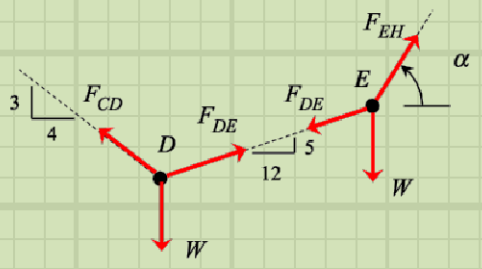
Given: Blocks A and B each have a weight of W and are supported with the cable system shown.

Find: If the system is in static equilibrium,
a) determine the tensions in cables CD and DE, and
b) determine the angle α.



Solution:

Free body diagrams (FBDs):



From the FBD of D:

$$\sum F_x = -\frac{4}{5}F_{CD} + \frac{12}{13}F_{DE} = 0 \;\Rightarrow\; F_{CD} = \frac{15}{13}F_{DE}$$

$$\sum F_y = \frac{3}{5}F_{CD} + \frac{5}{13}F_{DE} - W = 0 \;\Rightarrow\; \left[\frac{3}{5}\left(\frac{15}{13}\right) + \frac{5}{13}\right]F_{DE} = W \;\Rightarrow\; F_{DE} = \frac{13}{14}W$$ ← F_{DE}

$$\Rightarrow\; F_{CD} = \frac{15}{13}F_{DE} = \frac{15}{13}\left(\frac{13}{14}W\right) = \frac{15}{14}W$$ ← F_{CD}

From the FBD of E:

$$\sum F_x = -\frac{12}{13}F_{DE} + F_{EH}\cos\alpha = 0 \;\Rightarrow\; F_{EH}\cos\alpha = \frac{12}{13}\left(\frac{13}{14}W\right) = \frac{6}{7}W$$

$$\sum F_y = -\frac{5}{13}F_{DE} + F_{EH}\sin\alpha - W = 0 \;\Rightarrow\; F_{EH}\sin\alpha = W + \frac{5}{13}\left(\frac{13}{14}W\right) = \frac{19}{14}W$$

Dividing the above two equations gives:

$$\frac{F_{EH}\sin\alpha}{F_{EH}\cos\alpha} = \frac{6W/7}{19W/14} \;\Rightarrow\; \tan\alpha = \frac{12}{19} \;\Rightarrow\; \alpha = \tan^{-1}\left(\frac{12}{19}\right) = 32.3°$$ ← α

ME 270 – Course Blog

The blog discussion threads for this course are intended to provide a forum for the exchange of ideas among the students in the class, and between the students and the TAs/instructors. From this blog, you can get/provide assistance from/to other people in the class. We have found that you can often learn as much from helping others as from getting help for yourself.

REWARD: To reward your involvement in the blog, *two HW Scores will be added to your HW Average* based on the following:
Asking questions and providing assistance to others. For this, you ask/answer questions of others on a comment or post. A minimum of eight quality comments will count as full credit toward your bonus points (one HW for four quality posts and a second HW core for 4 additional quality posts). *Only blog activity prior to the last day of class will count toward your blog participation reward.*

LOGGING IN: You can access all of the information on the blog except adding blog posts without logging in. In order to log in, do the following:

1. Use your Purdue Career Account login. *Do NOT use the BoilerKey (two-factor) authentication.*
2. On the first login, you will need to receive approval prior to being able to post comments. We will get this approval done quickly as possible. It is recommended that you log on to the blog during the first week of class in order to get this approval process done in time for you to use the blog throughout the semester.

ANONYMITY IN POSTING: When you first log onto the course blog and are approved by your instructor, your default *User Name* is set to that of your Purdue Career Account. This *User Name* will appear with each comment that you post on the blog. If you would like to post anonymously, you are able to choose a new "*Nickname*" that will be displayed instead of your *User Name* on the comments. To do so:

1. Go to your "**Edit my profile**" in the upper right of the Admin Bar under "**Howdy**".
2. Add a nickname in the "**Nickname**" (*required*)" box.
3. In the "**Display name publicly as**", choose the desired nickname from the drop-down list.
4. Click "**Update Profile**" at the bottom of the page.

You may add additional *Nicknames*, and switch among these for different displays throughout the semester. If being anonymous to your colleagues is important to you for your postings, choose nicknames that will help you maintain your anonymity.