Hello and welcome to Statics! Statics is the branch of engineering mechanics that is concerned with the analysis of forces on physical systems in static equilibrium. It will also help you interpret the forces supporting objects we encounter in our daily lives. The expected workload outside of class is expected to be 3 hours for every credit hour, thus the weekly workload is $3 + 9 = 12$ hours.

Dr. Baker's team will be expected to:

- Deliver engaging lectures which introduce, clarify, and integrate course materials
- Provide a wide-array of quality learning opportunities and materials
- Assign well-sculpted assignments and exams materials to enable you and I to know how well you are understanding course material

You will be expected to:

- Put in the level of work you need to succeed in understanding Statics
- Tap into your existing intuition, strengths, and passion
- Become an active participant in your Statics education, taking full advantage of lectures, texts, homework, office hours, your fellow students and everyday life!

Upon completion of this course you will be able to:

- Understand the basic principles that govern the static equilibrium of bodies under the action of forces and
- Apply the knowledge and tools of statics to solve engineering problems

As a participant in this course, I ask you for your attention, hard work, and most of all respect. In return, I will work hard to meet your academic needs, create an atmosphere of learning, and respect and appreciate you as individuals.
Instructor Information

Instructor: Dr. Dan Baker
Email: dan.baker@colostate.edu
Office location: ENGR A207i
Office hours: MWF 10-10:50am

Stephanie Pilkington
Email: Stephanie.Pilkington@colostate.edu

Instructional Assistants

Christian Chavez
Email: christian.chavez@rams.colostate.edu
Office Hours:
• M & W 9-9:50am in ENGR D102

Janelle Stone
Email: janelle.stone@rams.colostate.edu
Office Hours:
• Tu 3-3:50pm in ENGR D102
• We 4-4:50pm in ENGR D102

Section Information

Section 002
Time: MWF 11-11:50am
Location: Clark A102

Section 001
Time: MWF 12-12:50pm
Location: Clark A102

Section 801
Online

Exam Times and Locations:

<table>
<thead>
<tr>
<th>Exam</th>
<th>Date/Time</th>
<th>Campus Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exam 1</td>
<td>Tuesday, October 4, 5:00-6:50pm</td>
<td>Johnson 222</td>
</tr>
<tr>
<td>Exam 2</td>
<td>Tuesday, November 8, 5:00-6:50pm</td>
<td>Johnson 222</td>
</tr>
</tbody>
</table>
| Final Exam¹| Final A: Monday, Dec 12, 4:10-6:10pm
           | Final B: Wednesday, Dec 14, 4:10-6:10pm | TBA             |

¹ ALL students from ALL Sections have the option of taking either final. No other final times will be offered.

Course Materials

Website: https://colostate.instructure.com

All course materials presented in class will also be posted on this website. The majority of the material will be organized by topic in the Modules and the links to lectures from a previous semester and the current semester (if available) are available on the Home page. Here’s some useful Canvas guides:

- What do icons and markings on the Grades Page represent?
- How do I view feedback from graded assignments?
- How do I view assignments posted as Quizzes?

If you need technical assistance with the Canvas either (1) visit the Canvas Student Guide page to troubleshoot common issues, (2) email help@colostate.edu or (3) call 970-491-7276.

Textbook

The textbook for this course is: Engineering Mechanics: Statics (13th Edition) by R.C. Hibbeler. Reading assignments will complement material presented in lectures.
Calculators

Only FE permitted calculators will be allowed for use on Exams (for more information see http://ncees.org/exams/calculator-policy/). No cell phones, laptops or any other electronic device may be used.

- **Casio**
  All **fx-115** models. Any Casio calculator must contain **fx-115** in its model name

- **Hewlett Packard**
  The **HP 33s** and **HP 35s** models, but no others

- **Texas Instruments**
  All **TI-30X** and **TI-36X** models. Any Texas Instruments calculator must contain either **TI-30X** or **TI-36X** in its model name

Communication

**Delivery of Course Information:** You are responsible for keeping track of information related to this course. The three primary ways I'll convey course logistical information in this course will be:

- This Canvas Website (including the Calendar, Modules, and Assignments)
- Messages sent via the Canvas email system. You need to check your Notification Preferences and can even get Notifications **sent via text message**.
- In-class announcements, notes, and verbal discussion.

**Communicating with Dr. Baker & his team:** Please use the following guidelines insure streamlined and documented communication with Dr. Baker & his team:

- Make emails concise and complete. In every email include your course, section and full name. For problem based questions include the problem number as listed on the assignment.
- Please contact your grader *first* for all Homework and Learning Exercise grading questions.
- Please submit all exam grading inquiries to Dr. Baker via email - within **one week** of the return of the exam. Include a photo or scan of the entire problem in question.
- Note that comments submitted with Canvas assignments are only viewed by the grader of that individual assignment and should NOT be used as a means of communicating with Dr. Baker.

Academic Integrity

This course will adhere to the Academic Integrity Policy of the Colorado State University General Catalog (Page 7) and the Student Conduct Code. A good summary can be found in this list of Student Responsibilities. I know that solutions to textbook problems are available on the internet. Copying all or part of an assignment from the solutions or a fellow student's assignment is considered cheating and will earn you a zero on the assignment(s), prevent you from learning anything from the assignment, and lose the trust of Dr. Baker. All cases of cheating are seriously evaluated and could result in you failing the class or removed from the university.

**Working Together**

You are encouraged to work alongside your peers on homework assignments, **but each student is responsible for completing in their own assignments**. The interaction of teaching and learning among a group is a powerful way to learn. However if you ever find yourself copying work that is not your's - STOP and reevaluate.
Course Grading

Assignments and exams will be weighted as follows:

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homework</td>
<td>20%</td>
</tr>
<tr>
<td>Learning Exercises</td>
<td>10%</td>
</tr>
<tr>
<td>2 Midterm Exams</td>
<td>50%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>20%</td>
</tr>
</tbody>
</table>

Letter grades will be assigned on the traditional grade scale, i.e. A ≥ 90%, 80% ≤ B < 90%, 70% ≤ C < 80%, 60% ≤ D < 70%, and F < 60%, with pluses and minuses used as necessary, (A+, A-, B+, B-; C+ but no C-, D+, nor D-). Individual exams/assignments may be curved, but the class will not be curved overall. Your current weighted grade will always be available on Canvas. In general for hand and online grading, "C"s indicate correct work, X's indicate errors.

Homework

All homework assignments are to reflect your original work and will be written by hand on paper or a tablet. While the use of a calculator or computational websites/software are permitted for complex single calculations, you are to complete your assignment by hand - and not program the entire problem into MathCad, MatLab, etc. When using your calculator or computational websites/software make sure to note which complex computations were done in your calculator (e.g. the determinant of a matrix or the use of a polynomial or system solver) and include (1) what was input into your calculator, (2) which function you performed in your calculator for the computation, and (3) the output.

**Homework Grading Breakdown**

<table>
<thead>
<tr>
<th>Points Possible</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two problems thoroughly graded using Holistic Grading</td>
</tr>
<tr>
<td>Remaining problems checked for completeness</td>
</tr>
</tbody>
</table>

- ALL homework will be submitted digitally to Canvas as a single PDF file
  - You will first complete the assignment on (1) plain white copy paper or (2) engineering paper. Next, scan it to a single legible PDF
    - There are multiple sheet feed PDF scanners in the Engineering computer lab [https://www.engr.colostate.edu/ens/info/classrooms/scanners.html](https://www.engr.colostate.edu/ens/info/classrooms/scanners.html). I have found that increasing the darkness 1 step for scans of pencil increases overall quality.
  - Alternatively you can use a computer tablet and stylus to hand-write your assignment.
- Your lowest homework grade will be dropped.
- Homework assignments will be posted to Canvas on Fridays with the assignment due the following Friday by 5pm
  - No late homework assignments will be accepted without prior instructor approval.
- Below are notes related to what your homework should look like. Homework not following this format will receive up to a 20% reduced score. You are responsible for submitting a gradable file, illegible (upside down, unreadable scan, or super-sloppy) submissions will receive a zero.
Learning Exercises

- Learning Exercises will bring active learning into this course. They will be given either in class or as a take-home assignment on an approximately weekly basis. All will be completed in Canvas. Examples of learning exercise activities could include:
  - Pre and Post Concepts Inventories
  - Multiple Choice Quizzes
  - Write to learn (e.g. fuzziest point, define the process, short summaries)
  - Responses to real world problems
- Learning exercises will be posted by Wednesday and are due by the following Monday at 11:59 pm MT.
- Your lowest learning assignment grade will be dropped.

Exams

- There will be two midterm exams and a final. Exam material will be drawn from lectures and the textbook.
- For students who cannot attend regular exams due to university related activities, serious illness, or family emergency (all with written proof); a makeup exam may be arranged. The instructor must be notified prior to the exam and no exceptions will be made without a legitimate reason and a timely arrangement.
- An equation sheet will be provided as part of the exam, but no additional materials are allowed.

Holistic Grading

The grading approach used in this course is called Holistic Grading. You’ll be graded on how close you came to (1) using the correct method, (2) showing all required work, (3) keeping work legible and organized, and finally (4) getting the correct answer. The rubric for this scoring is as follows (relative to an 8 point scale):

<table>
<thead>
<tr>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>8/8</td>
<td>Everything is correct – Including answers, units, steps, and sketches.</td>
</tr>
<tr>
<td>7/8</td>
<td>Everything essentially correct – The right idea on all parts of the problem. Only small missteps resulting in small errors (even wrong final answers).</td>
</tr>
<tr>
<td>6/8</td>
<td>The student had generally the right idea, but made a notable misstep at one point. – Knowledge of overall process, but had a small conceptual error or a minor computational error.</td>
</tr>
<tr>
<td>5/8</td>
<td>The student had some sense of what they were up to, but missed a key piece. - Much of the work is good, but there’s a big piece wrong or missing.</td>
</tr>
<tr>
<td>4/8</td>
<td>There is some evidence of understanding, but the work, overall, isn’t correct. An idea of where to start, or how to handle such a problem, but not followed through very well.</td>
</tr>
<tr>
<td>3/8</td>
<td>Most of the work is wrong, but there is something that is correct or insightful - Some work that correct, but the problem, overall, isn’t correct.</td>
</tr>
<tr>
<td>2/8</td>
<td>The student may have started the problem, but either went way off base or only finished ¼ of the problem – Needs to be at least a section of correct work.</td>
</tr>
<tr>
<td>1/8</td>
<td>Something of value – Something correct—a formula, a vector... something!</td>
</tr>
<tr>
<td>0/8</td>
<td>Blank or completely off base – A solution and process which is completely wrong.</td>
</tr>
</tbody>
</table>