NOTE to prospective students: This syllabus is intended to provide students who are considering taking this course an idea of what they will be learning. A more detailed syllabus will be available on the course site for enrolled students and may be more current than this sample syllabus. Summer term courses may be accelerated – please check the Ecampus Schedule of Classes for more information.

ST 314
INTRODUCTION TO STATISTICS FOR ENGINEERS

COURSE CREDIT:
(3) This course combines approximately 90 hours of instruction, online activities, and assignments for 3 credits.

PREREQUISITES, CO-REQUISITES AND ENFORCED PREREQUISITES:
(MTH 252 [D-] or MTH 252H [D-])

COURSE DESCRIPTION:
Introduction to Statistics for Engineers is a fast-paced introductory course for students majoring in engineering, science or computer science. The course requires a brief understanding of integral calculus, as it applies to probability problems. ST314 is designed to be a dense one-term introduction to probability, inferential statistics, experiments, hypothesis testing, estimation, regression and statistical process control. This course offers an introduction to the statistical software R. ST314 is comprised of 3 credit hours. Students should expect to spend up to 9 hours per week on online instruction, homework and readings.

CONTACT INFORMATION:
Instructor: Katie Jager, MS
Email: Katie.Jager@stat.oregonstate.edu
Office: Weniger 273

Sample syllabi may not have the most up-to-date information. For accuracy, please check the ECampus Schedule of Classes to see the most current instructor information. You can search for contact information by name from the OSU Home Page.
LEARNING RESOURCES:

Web Assign (Required)
Web assign is an online homework companion designed to be compatible with the below text. You will be assigned a specific course key on the first day of class. You may login and/or enter the course key at the following website: http://www.webassign.net/.

If you have issues with your WebAssign access or account, please contact WebAssign technical support. Call toll free (800) 955-8275 or go to http://webassign.com/support/student-support/.

Textbook (Suggested)

Statistical Software/Computing
A graphing calculator is recommended. Homework and Exams will assume you have a calculator.

For data analyses, we will explore statistical software R. Homework and Exam questions will assume you can read statistical software output.

R is a free source program and can be found by following this link:
http://cran.r-project.org/bin/windows/base/

R Studio is a friendly user interface that goes along with R. This can be downloaded for free on any system that already has R.
http://www.rstudio.com/
OR you can use your ONID ID to get remote access (out dated but no download required!)
rstudio.scf.oregonstate.edu

Internet Access is expected. Since this is an online class you will need reliable and regular internet access.

Document scanner. Data Analyses will need to be typed or scanned by a document scanner.

NOTE: For textbook accuracy, please always check the textbook list at the OSU Bookstore website. Sample syllabi may not have the most up-to-date information.

Students can also click the ‘OSU Beaver Store’ link associated with the course information in the Ecampus schedule of classes for course textbook information and ordering.
STUDENT LEARNING OUTCOMES:
The following are expectations of a student after the completion of this course.
1. Have an understanding of the role of statistics within the engineering profession.
2. Be able to graphically display data in ways meaningful for interpretation.
3. Have an understanding of variability in engineering processes and appropriate ways of modeling such variability.
4. Have a basic understanding of the tools of statistical inference.
5. Understand statistical process control and the use of control charts.
6. Be able to construct and interpret linear regression models involving one or more independent variables.
7. Have an understanding of the principles of experimental design and be able to identify when such principles can be put to use for engineering problems.

COURSE CONTENT AND POLICIES:

Canvas
You will need to access Canvas for this course. The Canvas page will be our central hub or classroom. This is where you will find important due dates, weekly units, access contact information, turn-in data analyses, communicate with peers, receive feedback on assignments, review grades and take the midterm and final exams. It is important to orient yourself with Canvas as soon as possible. The TA, a graduate student from the statistics department, will monitor the discussion boards on Canvas where you can post questions. Important course announcements may be made throughout the duration of the term. **You should check Canvas on a regular basis (at least every two days).** You can also access Canvas through a free mobile app available for Android and Apple.

Weekly Units
Materials and student expectations will be posted under the Modules tab in Canvas for each week of the course. It is expected that each student reads and follows the instructions for the week. Weekly units are made available on Saturday Morning of each week.

Communication
Announcements
Special announcements will be made on the Announcements page in Canvas. It is important to check them often to receive current information about the class.

Discussion Board
If you have a general (non-personal) question please post it in the weekly “Got a Question? Ask Here” discussion board forums. This allows other students to respond to the question and allows all students to view responses from the Instructor and TA. This is a great resource and
is typically faster than email. All general questions asked through email will be redirected to be posted within the Discussion Board.

Phone
The instructor can be reached by phone using the number listed in the university directory; however, email is the preferred contact method and will be quicker than messages by phone. Phone messages will not be checked over weekends, holidays or between academic terms. Please use the posted email to contact the instructor.

Email

OSU Email Account
Given this is an online class we will most likely communicate electronically, in addition to Canvas it is important to check your OSU email address as I may need to send you an individualized email. Not checking your email will not be a valid excuse for missed due dates. It is expected you participate to the fullest in this matter.

Email Instructor or TA
The instructor or TA may be reached through their posted email address posted in Canvas.

Email Etiquette
When sending an email:
- Put ST314 DISTANCE and YOUR NAME in the title of your email.
  - In some terms, I have over 500 students it really helps if you let me know who you are and which class you are in! 😊
- Use salutations:
  - Start your email by “Hello Instructor Jager”, “Hi Katie”, “Dear Statistics Master” 😊
  - End your email with From, Sincerely, Thank You, Cheers, -“Your name”.
- Only use email if you have a personal question, otherwise use the Discussion Board, your question may already be answered.
  - Reasons for personal email: Grades, grading feedback or personal issues
  - Send to Discussion Board: Content or course structure questions
- Exhaust all course materials and resources before emailing.
  - In other words, do your research. If you have a question that can be answered by the Syllabus, I will direct you to the Syllabus.
- Do not expect an instant response.
  - Your email will be responded to within 48 hours. Limited correspondence over the weekend from Friday 5PM to Monday 8AM.
- Haven’t gotten back to you? Please send another email if no response after 48 hours.
  - Sometimes student emails go to SPAM or I get too busy to respond 😞.
  - Please don’t hesitate to resend an email after two days.
WebAssign Communication
WebAssign has features called “ask your teacher” and “request an extension”. Please do not use these functions. I will not respond to your requests. Instead use the posted email or discussion board.

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<tr>
<th>Grades</th>
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<tr>
<td>Distribution</td>
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<td>Grades are earned by the student not given by the instructor. Your final grade is based on the number of points earned out of 1000 points. Final grades will be rounded to the nearest whole point. This is how your final grade will be calculated, there are no exceptions.</td>
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Bribes or grade negotiations are extremely inappropriate and will not be tolerated under any circumstances. It is the responsibility of the student to monitor their performance and check grades often. All grading requests/concerns must be done prior to finals week. All other requests will not be considered.

<table>
<thead>
<tr>
<th>WebAssign Homework</th>
<th>200</th>
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<tbody>
<tr>
<td>• Ten Assignments @ 20 points each</td>
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<td>200</td>
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<td>• Five Reports @ 40 points each</td>
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<tr>
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<td>100</td>
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Letter grades will be awarded according to the points earned*:

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<tr>
<td>B+</td>
<td>875 – 899</td>
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<td>B</td>
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Syllabus Survey
Students must read and agree to the terms of the course that are listed within this syllabus. If the Syllabus Survey in Canvas is not completed by the end of the second week, students will potentially earn an F for the course. Students will receive scores of zero for all items until the Syllabus Survey is complete.

Incomplete Grades
The Statistics Department policy on requesting incompletes is as follows: A student who wants to request an incomplete must fill out an Incomplete Request form available online (http://www.stat.oregonstate.edu/current/incomplete) or in the Statistics office (Kidder Hall 44). Please read the instructions as far as what constitutes a valid reason and what does not before filling out the form. Return the completed request form to the Statistics office. You will be notified within a few days of making the request as to whether your request was granted or denied.

WebAssign Homework
Weekly homework assignments will be assigned and completed in WebAssign. WebAssign is the online companion for the eBook, within WebAssign there is a complete copy of the eBook, practice problems, videos, and other helpful resources. It is important to register for WebAssign as soon as possible. A free trial period is available, to get started without committing to the course. A class access key will be provided in Canvas on the first day of class. WebAssign requires Adobe Flash and the use of Mozilla Firefox or Internet Explorer. It is the responsibility of the student to register for WebAssign and monitor grades in WebAssign. No late assignments will be accepted and no extensions will be granted. The lowest score will be dropped and replaced by the average of the other assignments. **Any grading requests must be done within 7 days of the original due date. Later requests will not be considered.**

If you have issues with your WebAssign access or account, please contact WebAssign technical support. Call toll free (800) 955-8275 or go to http://webassign.com/support/student-support/.

Participation
The ST314 Student Information Survey and six guided discussions will take place within Canvas and will make up the participation portion of the final grade. The survey will be used for analyses later in the term. Discussion board posts will include exploration of topics through external resources and student focused opinion, reflection and assessment. The purpose of the discussion board posts is to engage with other students in the course while gaining a deeper understanding of statistical topics. **Each post will have two parts, an original post (due Thursday) and at least two secondary posts (due Monday).** Posts will be graded.
according to the requirements with each post. Please refer to specific weekly units and discussion board to understand instructions for postings. **Late posts will be graded as a zero.**

### Data Analyses

Five short report Data Analyses will be assigned during the term. These reports are intended to allow students to explore statistical software, implore a deeper understanding of certain topics, receive targeted feedback, and practice applicable analyses on data. Data Analyses will be posted on Canvas and will be submitted through Canvas. Reports will be graded by a GTA and will be returned with feedback.

**All analyses must be uploaded as a PDF or Word Document.**

- JPEG, PNG, ODT, or other formats are not compatible with Canvas and will not be accessible for grading.
- You will receive a score of zero if your analysis is uploaded in a format other than PDF or Word. No Exceptions.
- You must upload pages as one document.
- Any resubmittal is subject to a 50% penalty.

**Late policy on Data Analyses**

- You must turn in analyses on time. Any analysis up to one second after the due date will not be graded*.
- *You will have a one time “four day leeway” in which you can turn in your data analysis up to four days late.
  - This means on Friday of the same week, no questions asked and no excuses needed!
  - All other requests for extensions will not be granted.

### Exams

Your knowledge of the material will be evaluated by a midterm exam and a final exam. All the examinations are taken online. In order to be able to access an exam, the exam must be “unlocked” by an e-campus approved proctor; it is mandatory you work with E-Campus to secure an approved proctor. It is encouraged to find an approved proctor at least 1-2 weeks prior to taking the exam. The instructor does not have authority to approve a proctor; this must be done through e-campus.

Go to the following web page for information on setting up a proctor through ecampus. [http://ecampus.oregonstate.edu/services/proctoring/default.htm](http://ecampus.oregonstate.edu/services/proctoring/default.htm)
Exam Rules

- Exams must be taken within the exam window.
- Exam windows are non-negotiable.
- Missed scheduled exams can be rescheduled if within the exam window.
- Failure to take an exam during the exam window will result in a grade of zero on the exam.
- Failure to sign up for an approved proctor, will result in a grade of zero on the exam.
- Exams may be taken any time during the examination window depending on your proctor’s availability.
  - If your preferred proctor is not available during the exam window, you will need to find another.
- Online proctoring is available to those in remote areas. Students must have a webcam.
- If there is a technical issue with the exam or an unavoidable problem, proctors must contact ecampus and the instructor through the provided email address.
- Students requesting another attempt or window extension due to extraordinary circumstances must do so within 24 hours of original issue. All other requests for extensions will be denied.
- Proof of identification will be needed to take exams.

Midterm Exam

The 110-minute Midterm will be available during the 6th week of classes and will cover material from weeks 1-5. During the exam you will need a calculator, statistical tables and are allowed two 8.5X11 double-sided hand written pages of notes. Exact date and time of availability can be found under Course Information and Documents in Canvas and on the Course Schedule.

Final Exam

The Final exam is cumulative and will be available during finals week. The final exam will allow two 8.5X11 double-sided hand written pages of note, statistical tables and a calculator. Exact date and time of availability can be found under Course Information in Canvas and on the Course Schedule.

Academic Integrity

You are expected to submit your own work in all your assignments, postings to the discussion board, exams, and all other communications, and clearly give credit to the work of others when you use it. Academic dishonesty is a very serious issue and will not be taken lightly. Any violation of these expectations will result in disciplinary action and a grade of zero on either the assignment or an F in the course. Link to Statement of Expectations for Student Conduct: http://oregonstate.edu/admin/stucon/achon.htm.
EVALUATION OF STUDENT PERFORMANCE:

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COURSE SITE LOGIN INFORMATION

Information on how to login to your course site can be found HERE.
STATEMENT REGARDING STUDENTS WITH DISABILITIES

Oregon State University is committed to student success; however, we do not require students to use accommodations nor will we provide them unless they are requested by the student. The student, as a legal adult, is responsible to request appropriate accommodations. The student must take the lead in applying to Disability Access Services (DAS) and submit requests for accommodations each term through DAS Online. OSU students apply to DAS and request accommodations at our Getting Started with DAS page.

Accommodations are collaborative efforts between students, faculty and Disability Access Services (DAS). Students with accommodations approved through DAS are responsible for contacting the faculty member in charge of the course prior to or during the first week of the term to discuss accommodations. Students who believe they are eligible for accommodations but who have not yet obtained approval through DAS should contact DAS immediately at 541-737-4098.

Additionally, Canvas, the learning management system through which this course is offered, provides a vendor statement certifying how the platform is accessible to students with disabilities.

ACADEMIC INTEGRITY AND STUDENT CONDUCT (OSU POLICY)

Students are expected to be honest and ethical in their academic work. Intentional acts of academic dishonesty such as cheating or plagiarism may be penalized by imposing an “F” grade in the course.

Student conduct is governed by the universities policies, as explained in the Office of the Dean of Student Life: Student Conduct and Community Standards. In an academic community, students and faculty, and staff each have responsibility for maintaining an appropriate learning environment, whether online or in the classroom. Students, faculty, and staff have the responsibility to treat each other with understanding, dignity, and respect.

Students are expected to conduct themselves in the course (e.g. on discussion boards, email postings, etc.) in compliance with the university's regulations regarding civility. Students will be expected to treat all others with the same respect as they would want afforded to themselves. Disrespectful behavior (such as harassing behavior, personal insults, inappropriate language) or disruptive behaviors are unacceptable and can result in sanctions as defined by Student Conduct and Community Standards.

For more info on these topics please see:

Statement of Expectations for Student Conduct
Student Conduct and Community Standards - Offenses
Policy On Disruptive Behavior
PLAGIARISM
You are expected to submit your own work in all your assignments, postings to the discussion board, and other communications, and to clearly give credit to the work of others when you use it. Academic dishonesty will result in a grade of “F.”

Statement of Expectations for Student Conduct
Avoiding Academic Dishonesty

Turnitin Plagiarism Prevention
Your instructor may ask you to submit one or more of your writings to Turnitin, a plagiarism prevention service. Your assignment content will be checked for potential plagiarism against Internet sources, academic journal articles, and the papers of other OSU students, for common or borrowed content. Turnitin generates a report that highlights any potentially unoriginal text in your paper. The report may be submitted directly to your instructor or your instructor may elect to have you submit initial drafts through Turnitin and you will receive the report allowing you the opportunity to make adjustments and ensure that all source material has been properly cited.

Papers you submit through Turnitin for this or any class will be added to the OSU Turnitin database and may be checked against other OSU paper submissions. You will retain all rights to your written work. For further information on Turnitin please click HERE.

TECHNICAL ASSISTANCE
If you experience computer difficulties, need help downloading a browser or plug-in, assistance logging into the course, or if you experience any errors or problems while in your online course, contact the OSU Help Desk for assistance. You can call (541) 737-3474, email osuhelpdesk@oregonstate.edu or visit the OSU Computer Helpdesk online.

COURSE DEMO
GETTING STARTED

TUTORING
For information about possible tutoring for this course, please visit our Ecampus NetTutor page. Other resources include:

Writing Center
Online Writing Lab

STUDENT EVALUATION OF TEACHING
The online Student Evaluation of Teaching form will be available in week 9 and close at the end of finals week. Students will be sent instructions via ONID by the Office of Academic Programs, Assessment, and Accreditation. Students will log in to “Student Online Services” to
respond to the online questionnaire. The results on the form are anonymous and are not tabulated until after grades are posted. Course evaluation results are very important and are used to help improve courses and the learning experience of future students. Results from questions are tabulated anonymously and go directly to instructors and unit heads/supervisors. Unless a comment is “signed,” which will associate a name with a comment, student comments on the open-ended questions are anonymous and forwarded to each instructor. “Signed” comments are forwarded to the unit head/supervisor.

**REFUND POLICY INFORMATION**

Please see the [Ecampus website](https://ecampus.oregonstate.edu) for policy information on refunds and late fees.