In this section of Technical and Scientific Writing we learn and practice how to write technical and scientific information for various readers.

This course will integrate a rhetorical and process approach to writing. We begin by surveying the work of technical and scientific writing – how to design and manage projects, how to navigate work environments, how to work with standards and templates, and other basic knowledge expectations for technical and scientific writers. We will then practice writing several genres including proposals, data visualizations, usability tests, research reviews, and reports with attention to their specialized and expert audiences and contexts.

Throughout the course we will explore how to shift our writing to accommodate the needs of our readers and the stakeholders in our work. This rhetorical point of view is the essential starting point for good technical and scientific writing in many fields. Between class, reading, online assessments, and practice work, 9 hours per week of dedication is expected.

GENERAL COURSE DESCRIPTION

3 credits. “The study of the rhetorical principles involved in technical and scientific workplace writing with an emphasis on the production of professional documents, such as analytical reports. Will not satisfy literature requirement; will not count toward an English major or minor (except for a minor in writing).”

Prerequisite Course(s): ENGL 1301 and ENGL 1302; or ENGL 1303

CREDIT HOUR JUSTIFICATION

“The unit of credit is the semester hour, defined as one class meeting per week (or its equivalent) for one semester of 15 weeks. Most courses meet three hours per week and have a credit value of three semester hours. For each hour in class, at least
two hours of preparation are expected on the part of the student. Many students should spend more than this amount of time in study. ” – See full explanation in the Undergraduate Bulletin Registration page.

**Official text from the catalog:**

ENGL 2311 “Technical and Scientific Writing” (3 credits) typically meets three times each week in 50-minute segments or twice each week in 75-minute segments for 15 weeks, and also meets for a 2-hour final examination. In addition to weekly readings from the textbook and other relevant sources, students will create a variety of documents such as correspondence, portfolios, reports, instructions, and visual presentations. Other course requirements may include peer review exercises, online quizzes, and discussion boards. These activities average at a minimum 6 hours of work each week to prepare outside of the 3 classroom hours.

*Please keep in mind that, under federal financial aid eligibility requirements, SFA policy 5.4 defines the credit hour as “(1) Not less than one hour of classroom or direct faculty instruction and a minimum of two hours out-of-class student work each week for approximately fifteen weeks for one semester hour of credit, or the equivalent amount of work over a different amount of time, or (2) at least an equivalent amount of work as outlined in item 1 above for other academic activities as established by the institution including laboratory work, internships, practicum, studio work, and other academic work leading to the award of credit hours.” Online or hybrid courses should employ various strategies for creating student-professor contact and are held to the same standard for contact hours and out-of-class work as face-to-face classes.*

**GENERAL EDUCATION CORE CURRICULUM AND LEARNING OBJECTIVES**

This course has been selected to be part of Stephen F. Austin State University’s core curriculum. By enrolling in this course you are also enrolling in a Core Curriculum Course that fulfills the core objective components below.

“The core curriculum at Stephen F. Austin State University seeks to equip students with the broad intellectual foundations needed to live satisfying lives, to ready themselves for advanced study, to contribute significantly to society and to succeed in a diverse global community. In the service of these objectives, the mission of the core curriculum is to develop students’ abilities to think in disciplined, critical, quantitative and creative ways, and to communicate effectively.” – SFA Core Curriculum Mission Statement (2020)

The Texas Higher Education Coordinating Board has identified six objectives for all core courses: Critical Thinking Skills, Communication Skills, Empirical and Quantitative Skills, Teamwork, Personal Responsibility, and Social Responsibility. SFA is committed to the improvement of its general education core curriculum by
regular assessment of student performance on these six objectives. Please see the SFA General Education Core Curriculum webpage in the SFA course catalog.

<table>
<thead>
<tr>
<th>Core Objective</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Critical Thinking Skills</td>
<td>To include creative thinking, innovation, inquiry, and analysis, evaluation, and synthesis of information.</td>
</tr>
<tr>
<td>Communication Skills</td>
<td>To include effective development, interpretation, and expression of ideas through written, oral, and visual communication.</td>
</tr>
<tr>
<td>Teamwork</td>
<td>To include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal.</td>
</tr>
<tr>
<td>Personal Responsibility</td>
<td>To include the ability to connect choices, actions, and consequences to ethical decision-making.</td>
</tr>
</tbody>
</table>

At the completion of this course, students will be able to:

- Understand the recursive writing and social editing process and be able to write a variety of technical documents in an acceptable level of Standard American English. (Communication Skills and Teamwork)

- Write a variety of technical documents, demonstrating their awareness of audience and facility in addressing different audiences and stakeholders in complex rhetorical situations. (Critical Thinking, Communication Skills, and Personal Responsibility)

- Write technical and workplace documents by applying the appropriate categorical modes of rhetorical composition (descriptive, expositive, scientific, etc.), integrating visuals with text, and presenting information in an oral format. (Critical Thinking, Communication Skills, and Personal Responsibility)

- Work in groups to produce and critically evaluate documents, integrating different points of view. (Critical Thinking, Communication Skills, Teamwork, and Personal Responsibility)

- Use critical-thinking skills and exhibit technical proficiency in the invention and composing processes. (Critical Thinking and Communication Skills)
• Understand ethical considerations in technical and professional writing, understanding the consequences of communication acts. (Critical Thinking, Teamwork, and Personal Responsibility)

• Tailor communications to social and ethical frameworks, editing them to be effective and responsible in international and intercultural situations. (Critical Thinking, Communication Skills, and Personal Responsibility)

• Adequately research a topic and use documented evidence to support a paper written in the style applicable to their individual field of study. (Critical Thinking, Communication Skills, and Personal Responsibility)

REQUiRED TEXTS

Access to SFA websites and applications including Brightspace, the library, email, MySFA, etc.

If the class is not held in a lab – students must maintain access to readings posted on D2L through a personal laptop or handheld device or by printing out texts.

Writing Science in the Twenty-first Century by Christopher Thaiss
(Used ~ $30)

Required textbook. We will use the book starting the second week of class. So please acquire it as soon as possible!

ACCOMMODATION INCLUDING MENTAL HEALTH AND WELLNESS

To obtain disability-related accommodations, alternate formats, and/or auxiliary aids, students with disabilities must contact the Office of Disability Services (ODS), Human Services Building, and Room 325, 468-3004 / 468-1004 (TDD) as early as possible in the semester. Once verified, ODS will notify the course instructor and outline the accommodation and/or auxiliary aids to be provided. Failure to request services promptly may delay your accommodations. For additional information, go to http://www.sfasu.edu/disabilityservices/.

Student Wellness and Well-Being

SFA values students’ overall well-being, mental health and the role it plays in academic and overall student success. Students may experience stressors that can impact both their academic experience and their personal well-being. These may include academic pressure and challenges associated with relationships, emotional well-being, alcohol and other drugs, identities, finances, etc.

If you are experiencing concerns, seeking help, SFA provides a variety of resources to support students’ mental health and wellness. Many of these resources are free, and all of them are confidential.
On-campus Resources:
The Dean of Students Office (Rusk Building, 3rd floor lobby)
www.sfasu.edu/deanofstudents
936.468.7249
dos@sfasu.edu

SFA Human Services Counseling Clinic Human Services, Room 202
www.sfasu.edu/humanservices/139.asp
936.468.1041

The Health and Wellness Hub “The Hub”
Location: corner of E. College and Raguet St.

To support the health and well-being of every Lumberjack, the Health and Wellness Hub offers comprehensive services that treat the whole person – mind, body and spirit. Services include:

- Health Services
- Counseling Services
- Student Outreach and Support
- Food Pantry
- Wellness Coaching
- Alcohol and Other Drug Education

www.sfasu.edu/thehub
936.468.4008
thehub@sfasu.edu

Crisis Resources:
- Burke 24-hour crisis line: 1.800.392.8343
- National Suicide Crisis Prevention: 9-8-8
- Suicide Prevention Lifeline: 1.800.273.TALK (8255)
- johCrisis Text Line: Text HELLO to 741-741

BRIGHTSPACE COURSE WEBSITE

SFA uses Brightspace as its virtual course management system. You can locate our course website through your MySFA login.

Class handouts, reading links, assignment sheets, and important documents such as this syllabus will be posted on Brightspace in the **content** tab.

We will use the **discussion board** and other Brightspace features.
Assignments will be submitted electronically. Look in the assessments tab for submission folders.

Locate the site’s gradebook. You are in charge of checking the gradebook for errors throughout the semester.

Dr. Parks will email you from both the Brightspace (for class listserv emails) and the regular Jacks email. So plan to check both regularly!

**ATTENDANCE AND LATE WORK**

Technical and Scientific Writing is an attention-intensive class. If you miss class meetings or skip readings and Brightspace pages you will miss important information, group work, and practice tasks. If you get off schedule it is difficult to catch back up.

Dr. Parks assigns due dates to keep you on track in the class and to keep herself on schedule in grading. Due dates are part of a support structure for major projects and are only renegotiated in extreme cases. Do not expect timely grading and feedback on renegotiated submissions.

There is a team unit in our class. That grade is partially dependent on your communication and diligent contact with your team. Plan to communicate outside of class regularly with your team during the team unit.

Please contact Dr. Parks in advance or as soon as possible after you have an extraordinary circumstance occur that affects your performance in this class. When in doubt, ask.

There are no extra penalties for missing class beyond the natural consequences of missing instruction and in-class assignments. However, these natural consequences add up quickly. Most students who miss class find they cannot pass the class with higher than a C after 4 absences (=2 weeks of class) and most students who miss 6 classes (=3 weeks of class) drop or fail.

**ONLINE AVAILABILITY**

Dr. Parks’ office hours are held during the day – which means some students may not be able to attend office hours. If this is the case, you may request to meet outside of these hours. Dr. Parks will use our office hour Zoom link for these meetings.

Dr. Parks strives to maintain a 24-hour response time for email if you have a relatively simple question. Feel free to email her at any time at Sara.Parks@sfasu.edu.
Introduction to technical and scientific writing courses use a set of program standards to ensure students across all the sections are held to similar standards to earn at least a C in the course. Please consult the technical and scientific writing program standards checklist (included at the end of this syllabus) to track your progress towards at least a C in this class.

Below is a list of deliverables you will prepare and submit for this course. Each section of the class is listed in bold with the weight of grades in that portion of the course indicated.

**Project Management – 20%**
- Scheduling preparation
- Database preparation
- Speech community report
- Exercises from Chapter 1 and 2 of *Writing Science*

**Talking about Writing – 15%**
- Team charter
- Public expert data design analysis
- Public expert writing analysis
- Team Exercises from Chapter 3, 4, and 13 of *Writing Science*
- Team proofreading/editing practice

**Writing in STEM – 30%**
- Short Proposal
- Research review notes and perfect works cited
- Exercises from Chapters 5, 6, 7, and 12 of *Writing Science*

**Technical Writing in Public – 35%**
- Exercises from Chapters 8, 9, 10, and 11 of *Writing Science*
- Science poster
- Science column or blog
- Completed standards-based grading rubric (P/F)

As you can see, the grades in this class are weighted heavier later in the class, with teamwork weighing the least. This means you have a bit of a safety net at the beginning of the course to settle into a schedule that works for you. Also, if your team fails that failure won’t sink your grade in the course. The “Talking about Writing” unit is the only unit you will complete in a team.
ACADEMIC HONESTY

Work for any course should be newly generated by you or your assigned team for each assignment.

Plagiarism involves using another’s work, words, or ideas without correctly giving credit to the author. It is just as serious to plagiarize the work of another student as it is to plagiarize the work of a published author.

Use a standard documentation style to credit your source. If you have questions about correct documentation, please ask!

In a collaborative class such as this, you may not always fully understand what is and is not plagiarism or what type of collaboration outside of class is and is not allowed. If you have questions, please ask!

We will be discussing how to use generative AI productively in this course. In this course, you will be submitting all of your process work – including your chats with generative AI. Please keep in mind that you should always ask if you want to use generative AI in any course.

General Policy

The Code of Student Conduct and Academic Integrity outlines the prohibited conduct by any student enrolled in a course at SFA. It is the responsibility of all members of all faculty, staff, and students to adhere to and uphold this policy.

Articles IV, VI, and VII of the new Code of Student Conduct and Academic Integrity outline the violations and procedures concerning academic conduct, including cheating, plagiarism, collusion, and misrepresentation. Cheating includes, but is not limited to: (1) Copying from the test paper (or other assignment) of another student, (2) Possession and/or use during a test of materials that are not authorized by the person giving the test, (3) Using, obtaining, or attempting to obtain by any means the whole or any part of a non-administered test, test key, homework solution, or computer program, or using a test that has been administered in prior classes or semesters without permission of the Faculty member, (4) Substituting for another person, or permitting another person to substitute for one’s self, to take a test, (5) Falsifying research data, laboratory reports, and/or other records or academic work offered for credit, (6) Using any sort of unauthorized resources or technology in completion of educational activities.

Plagiarism is the appropriation of material that is attributable in whole or in part to another source or the use of one’s own previous work in another context without citing that it was used previously, without any indication of the original source,
including words, ideas, illustrations, structure, computer code, and other expression or media, and presenting that material as one’s own academic work being offered for credit or in conjunction with a program course or degree requirements.

Collusion is the unauthorized collaboration with another person in preparing academic assignments offered for credit or collaboration with another person to commit a violation of any provision of the rules on academic dishonesty, including disclosing and/or distributing the contents of an exam.

Misrepresentation is providing false grades or résumés; providing false or misleading information in an effort to receive a postponement or an extension on a test, quiz, or other assignment for the purpose of obtaining an academic or financial benefit for oneself or another individual or to injure another student academically or financially.

WITHHELD GRADES

Ordinarily, at the discretion of the instructor of record (Dr. Parks) and with the approval of the academic chair/director (Dr. Tasker), a grade of WH will be assigned only if the student cannot complete the course work because of unavoidable circumstances. Students must complete the work within one calendar year from the end of the semester in which they receive a WH, or the grade automatically becomes an F. If students register for the same course in future terms the WH will automatically become an F and will be counted as a repeated course for the purpose of computing the grade point average.

Note: often students who request a withheld grade do not end up passing. Therefore, it is very difficult for you to obtain permission. Please avoid this option if possible. [https://www.sfasu.edu/policies/course-grades-5.5.pdf](https://www.sfasu.edu/policies/course-grades-5.5.pdf).

OTHER UNIVERSITY POLICIES APPLY

See the SFA Policy Manual and the General Bulletin for other university-wide policies and explanations.

GENERAL SCHEDULE

Please refer to the Brightspace for a full schedule. This is just the required outline. This course generally follows a schedule where Tuesdays begin the new week. Treat Mondays as your “safety net” in case your weekend didn’t let you finish homework. All due dates are set for 11:59 p.m. (midnight) Monday night. Schedule subject to change if needed.
Project Management Unit

Aug. 29 – Fall Classes Begin

Week 1 (Aug. 29)

Syllabus review (see "Overview" page)
Welcome page
Project Management unit page
(In Project Management Module)
Why start with project management
What do employers want
What do employers want discussion and discussion board
What do employers want wrap-up

HOMEWORK:
Read textbook Introduction and Chapter 1.
Complete Textbook Introduction quiz.

Week 1 - class 2 (Aug. 31)

(Content & Design Module)
Gut reactions to a technical document
Syllabi gut reactions initial post
Content and Design
Schedules

HOMEWORK:
Complete Chapter 1 quiz.
Syllabi gut reactions discussion board follow-up response

Scheduling Preparation assignment

Week 2 (Sept. 5 & 7)
(Design & Databases Module)

Database Preparation

Document Design and Databases PowerPoint with audio

(Taking Notes Module)

Research about Note-Taking

How to Take Good Notes

HOMEWORK:

Database Preparation assignment

Practice Note-Taking assignment

**Week 2 - class 2**

(Speech Communities Module)

Language standards

- includes reading and Error vs. Choice discussion board initial post

Swales – Discourse Community PDF

Using Generative AI

HOMEWORK:

Speech Community Report – note the rubric

Error vs. Choice discussion board peer response post

**Talking about Writing Unit**

**Week 3 (Sept. 12 & 14)**

Talking about Writing unit page

(Getting to know our team and ourselves in a team Module)

Present Speech Community Report to teammates as ice breaker

Teamwork
- includes Team Affinities, Team Rankings of Conflict Concerns, Negative Experiences with Teamwork Quizzes and Discussion

Homework:

Team Charter Assignment

Read Textbook Chapter 3

Chapter 3 Quiz

**Week 3 - class 2**

(Work Documents Sub-Unit)

Correspondence

- Includes Correspondence lecture PowerPoint with audio
- Includes Rhetorical Triangle Quiz and Positive Argument Quiz

Homework:

Read the assignment guide for the Work Documents Assignment. Write down questions so we make sure to address them in class.

Find at least one "advice webpage" - which can be an article, a blog, an interview, anything online that gives current (within 5 years) advice for applying for jobs, resumes, interviews, etc. in your chosen STEM subfield. Screenshot or PDF the advice and save it for use in class.

**Week 4 (Sept. 19 & 21)**

(Work Documents Module)

Work Documents
- Includes readings about job ads, cover letters, resume writing, job listings
- Includes good and poor resume examples and freelance vs. academic website examples.
- Includes link to your professors' CVs.
- Includes video of Dr. Parks critiquing student examples with a transcript

AI Innovations in Student Writing PowerPoint

Homework:
Advice in your field discussion board post.
Read Chapter 4
Work Documents Project with team

**Week 4 - class 2**  
(Public Expertise and Writing Module)

Introduction to Experts in Public  
- Includes “How do you gain expertise?” discussion board

Expertise PowerPoint with audio

Celebrity Cooks – Expertise in Public

**Homework:**  
Return to “How do you gain expertise?” discussion board for follow-up posts.

Public Expert Writing Analysis assignment with team

**Week 5 (Sept. 26 & 28)**  
(Public Expertise and Data Design Module)

Public Expert Data Design Analysis  
- Includes link to Information is Beautiful webpage

Data Visualizations PowerPoint with Audio  
- Includes link to The Beauty of Data Visualization Ted Talk

**Homework:**  
Public Expert Data Design Analysis assignment with team

**Week 5 – class 2**  
(Editing and Proofreading Module)

Editing and Proofreading  
- Includes Dirty Grammar Guide PowerPoint  
- Includes links to tutorials

Practice Marking Up Someone’s Work  
- Includes Samantha Wellshetried assignment

**Homework:**
Team Proofreading & Editing Practice assignment

Read chapter 13

Chapter 13 Quiz

Finish all of teamwork – including using the private dropbox to report who did what if your team charter required that you report back to Dr. Parks.

Public Expert Papers Summative Assessment and Reflection

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**Writing in STEM**

**Week 6 (Oct. 3 & 5)**

(Midterm Assessments Sub-Unit)

Course Midpoint Metacognitive Reflection

(Writing in STEM Unit)

Writing in STEM introductory unit page

(Short Proposal Module)

Short Proposal

- Includes readings
- Includes Personas assignment

Writing a Short Proposal PowerPoint – no audio, you may use docReader

**Homework:**

Read Textbook Chapter 5

Chapter 5 Quiz

Short Proposal assignment

**Week 6 - class 2**

(Short Proposal Module)

Short Proposal Peer Double-Check

**Homework:**
Read textbook Chapter 6

Chapter 6 Quiz

Revise and resubmit Short Proposal assignment

**Week 7 (Oct. 10 & 12)**

(Research Module)

Valuing Information – Ethics

Research Review

Search Terms

**Homework:**

Bibliography with annotations assignment

**Week 7 - class 2**

(Research Module)

Read chapter 7

Research Review assignment

**Homework:**

Plan of Action assignment

**Week 8 (Oct. 17 & 19)**

(Science Posters and Infographics Module)

Creating Visuals

- Includes links to tutorials

Best examples of scientific posters

SFA Brand Toolkit

How to create a blank poster in PowerPoint

Parts of a science poster PowerPoint

**Homework:**
Read Chapter 10

Chapter 10 – Science Poster discussion board.

**Week 8 - class 2**

(Science Posters and Infographics Module)

Visual with Script assignment

**Homework:**

Read Chapter 11

Chapter 11 Quiz

**Week 9 (Oct. 24 & 26)**

(Science Posters and Infographics Module)

Present science poster and/or infographic to peers with script.

Complete peer presentation verification “quiz”

**Homework:**

Revise science poster and/or infographic based on feedback

Resubmit Visual with Script assignment

**Week 9 - class 2**

Extra built-in day for make-up work, visit to the library, or visiting speaker.

**Writing in Public**

**Week 10 (Oct. 31 & Nov. 2)**

Writing in Public unit page

(Public Column or Blog Module)

Public Column or Blog

- Includes links to an overview of the project
- Includes links to example column and blog

Introduction to Oral/Visual Presentation activity
Homework:
Read Chapter 8
Chapter 8 Quiz
Read Chapter 9
Chapter 9 Quiz

**Week 10 - class 2**
(Public Column or Blog Module)
Audience/Context analysis – part of the instructions for public column or blog
Public column or blog assignment outline

Homework:
Finish public column or blog assignment

**Week 11 (Nov. 7 & 9)**
(Public Column or Blog Module)
Public column or blog workshop

Homework:
Revise and resubmit public column or blog

**Week 11 - class 2**
(What is usability testing? Module)
Introduction to Usability
Usability Testing Examples
Determining Objective Criteria for Testing
How you know the criteria have been met
Writing your usability test

Homework:
Decision-Making Section of the Usability Report assignment
Week 12 (Nov. 14 & 16)
(What is usability testing? Module)
Write usability report testing script

Homework:
Wait for feedback on your decision-making section before starting test
Revise decision-making section if needed
Test using usability report script

Week 12 - class 2
(Usability Report Module)
Report Writing Review
Typical Report Contents (IMRAD)
Introduction
Methods
Results
Analysis
Discussion

Homework:
Complete usability testing and outline report.

Nov. 18 – 27 Thanksgiving Break

Week 13 (Nov. 28 & 30)
(Usability Report Module)
Review Usability Report section pages as you write each section.

Homework:
Usability test report assignment

Week 13 - class 2
Usability test report assignment

**Week 14 (Dec. 5 & 7)**

Complete all late work.

Extra built-in day for emergencies or just dead week.

**Week 14 - class 2**

Complete all late work

**Dec. 11-15 – Exam Week**

(Final Rubric Module)

Final Rubric – due by end of designated finals time.

**Homework:**

All late work should be completed by exam day.

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**STANDARDS-BASED GRADING OUTLINE**

Each of these standards must be met to pass with at least a C in Introduction to Technical & Scientific Writing.
<table>
<thead>
<tr>
<th>Program Standards</th>
<th>Yes/No</th>
<th>Evidence</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have identified the parts of a scholarly research article (IMRAD).</td>
<td></td>
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<tr>
<td>I have demonstrated understanding of the importance of audience on technical &amp; scientific writing 3 times.</td>
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<tr>
<td>I have accurately paraphrased an expert source in language a non-expert can understand.</td>
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<tr>
<td>I have created a visualization that accurately displays quantitative data.</td>
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<tr>
<td>I have evaluated a text for its usability (ease of understanding, ease of access, reader relevance).</td>
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<tr>
<td>I have created a perfect works cited or references page.</td>
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<tr>
<td>I have proofread and corrected errors in my writing 3 times.</td>
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<tr>
<td>I have demonstrated awareness of a stakeholder other than the main intended reader for a document.</td>
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<tr>
<td>I have practiced writing in at least 3 different rhetorical modes of writing. (ex. narration, exposition, description,</td>
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<tr>
<td>Course Standards</td>
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<tr>
<td>I have earned at least a 70% or C in the course gradebook.</td>
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</tbody>
</table>

**Will I pass?**

- All of these boxes must be checked.
- Evidence must be recorded (understandable to the instructor – usually the name of an assignment) for each box.
- “Double dipping,” using the same assignment as evidence for multiple standards, is allowed for program standards.
- Notes allow unique situations and exceptions to be addressed.