

BCP 6500: Advanced Safety Principles Syllabus

Summer, 2026

Delivery: 100% Web-Based, Asynchronous

Dates course will run: May 18 – July 5, 2026

Instructor Information

Christopher Clanton

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Office Hours: Weekly office hours via Teams Tuesday @ 7:00 PM (1900) EST. Attendance is optional but highly encouraged. Sessions will be recorded and posted to course media.

General Course Information

Description

Managing Occupational Health and Safety (OH&S) for the purpose of improved organizational performance requires a systematic set of processes, employee engagement, and internal checks and balances uniquely tailored to the needs and conditions of an organization. ISO 45001:2018, an international standard, and ANSI/ASSP Z10.0-2019, an American national standard, define processes needed for continual improvement in OH&S performance. This course will cover the requirements of ISO 4500 and ANSI Z10.0 as frameworks for OH&S efforts and other management systems that may be in place within an organization. Additionally, this course will use ISO 45001 and ANSI Z10.0 as lenses for discussion and reflection on topics such as Serious Injury and Fatality (SIF) Prevention, Psychological Safety, and Human and Organizational Performance.

The knowledge gained from this course will prepare general industry, services, and construction participants to facilitate their organizations in attaining higher-level OH&S performance and provide an assessment of readiness for ISO 45001 and ANSI Z10.0 implementation.

Pre- &/or Co-Requisites

BCP 6400

Course Learning Outcomes

By the end of the course, students will be able to:

1. Describe, discuss, and explain the U.S. and International Standards development processes.
2. Identify, compare, and evaluate the value of a Health and Safety Management System and voluntary consensus and industry standardization in contrast to only meeting legal and regulatory programming requirements.
3. Breakdown, analyze, and evaluate the requirements of a Health and Safety Management System, such as ISO 45001 and ANSI Z10.0, to conduct and defend a gap assessment for an organization.
4. Synthesize, organize, and evaluate actionable reflections and thoughts to synthesize and implement a Health and Safety Management System meeting the requirements of ISO 45001, ANSI Z10.0, and the specific needs of an organization.

5. Explain the relationship between Management System Standards, System Safety, and Serious Injury and Fatality Prevention.
6. Describe and explain the relationship between other management system standards and safety principles to differentiate the value of integration, auditing, and certification.

Course Materials

List all required, recommended or supplemental course materials:

Required Course Text

- Manuele, Fred A. Advanced safety management focusing on Z10, 45001, and serious injury prevention. Wiley, 2020. (3rd Edition)
 - This textbook is the same textbook utilized in BCP 8833, Occupational Safety and Health Principles and Applications. It is available in the school bookstore and from the [GA Tech library through O'Reilly Safari Ebooks](#).
 - Use this link to purchase from Barnes & Noble (School Store):
[https://gatech.bncollege.com/webapp/wcs/stores/servlet/TBListView?catalogId=10001&storeId=15054&langId=-1&courseXml=<textbookorder xmlns=""><courses><course dept="BCP" num="6500" sect="QSH" term="A26"></course></courses></textbookorder>](https://gatech.bncollege.com/webapp/wcs/stores/servlet/TBListView?catalogId=10001&storeId=15054&langId=-1&courseXml=<textbookorder xmlns=)

Additional Materials/Resources

- ANSI Standards Connect (required, provided at no cost through ANSI):
 - ISO 45001
 - ISO 9001
 - ISO14001
 - ISO 45003
 - ISO 19011:2018
- ASSP (not required but recommended, available with 10% discount through [ASSP](#) with code 25STUD10)
 - ANSI Z10.1 – 2018
 - ASSP GM – Z10.101-2019
 - ANSI Z16.1 – 2022

Course Website and Other Classroom Management Tools

ANSI Standards Connect: <http://asc.ansi.org/User/Register.aspx?rt=012956f0-f2c3-4b56-b905-2cc86d8f7b02>

Course Requirements, Assignments & Grading

Assignment Distribution and Grading Scale

Assignment Weight Distribution and Due Dates

Assignment	Release Date	Due Date	Weight (Percentage, points, etc.)
Week 1 Reflection Journal	May 18, 2026	May 24, 2026	5%
Week 1 Discussion: OSHA Regulations and ANS	May 18, 2026	May 24, 2026	5%
Week 2 Reflection Journal	May 25, 2026	May 31, 2026	5%
Week 2 Discussion: International Influence on US Practices	May 25, 2026	May 31, 2026	5%
Week 3 Reflection Journal	June 1, 2026	June 7, 2026	5%
H&S Objectives and Scope	June 1, 2026	June 7, 2026	5%
Week 4 Reflection Journal	June 8, 2026	June 14, 2026	5%
H&S Risk/Hazard Register	June 8, 2026	June 14, 2026	5%
Week 5 Reflection Journal	June 15, 2026	June 21, 2026	5%
H&S Performance and Management Review	June 15, 2026	June 21, 2026	5%
Week 6 Reflection Journal	June 22, 2026	June 28, 2026	5%
Internal Audit Procedure	June 22, 2026	June 28, 2026	5%
Gap Assessment	May 18, 2026	July 5, 2026	20%
Final Gap Report	June 15, 2026	July 5, 2026	20%

Grading Scale

Your final grade will be assigned as a letter grade according to the following scale:

- A 90-100%
- B 80-89%
- C 70-79%
- D 60-69%
- F 0-59%

Description of Graded Components

Reflection Journals

Reflective writing helps you make personal sense out of the rich, complex, and confusing information you are learning, ideas you are confronting, and ways you can apply your thoughts to your life. As the term implies, this writing is like a mirror, allowing you to look at your developing self. This personal connection increases your motivation, purpose, and involvement by helping you define what you want to learn and say.

While there is no specific style requirement for journals, students should ensure they engage appropriately with all course materials and make a meaningful effort toward reflection for this assignment. Page requirements are merely suggestions to help students include enough material to support what they have learned in the module(s), but some students may include more or less. This assignment is A. a deeply personal assignment when done correctly, and B. much more about quality than quantity.

Discussions

Discussions are written assignments within the Canvas platform where students will answer a question or prompt in the thread. Students will also read and respond to other students in the thread based on their post(s) to create dialogue and deeper sharing and understanding of thought.

Practical Exercises

Practical exercises give students functional application of the principles and practices required of the standards and discussed in course materials. These assignments will focus on specific documented information needed for implementation of the H&S Management System framework.

- **Week 3: H&S Scope and Objectives:** This is an individual submission covering the Scope, Policy, and Objectives of an OH&S Management System.
- **Week 4: H&S Risk and Hazard Register:** This is an individual submission of a provided risk and hazard register.
- **Week 5: H&S Performance and Management Review:** This is a group submission discussing OH&S performance measures and management review.
- **Week 6: Internal Audit Process:** This is an individual submission of a written evaluation of three provided internal audit procedures.

Extra Credit Opportunities

1. ANSI Intro to Standards- Complete [An Introduction to Standards: Why, where, and how are they developed](#) course.
Due: By end of course
2. ANSI Student Paper Competition- Submit a paper to the competition (<https://www.ansi.org/education/activities/paper-competition>)
Due: June 5, 2026

Additional Criteria for Successful Completion of the Course

This course will require the student to think critically, analytically, and unconventionally regarding standards-based safety methods. While traditional, prescriptive requirements from regulatory bodies will serve a supporting role, most assignments in the course do not rely on specific, prescriptive standards and can be met in many ways. This may be unfamiliar and challenging to some students with a more rigorous, compliance-focused background. Students facing challenges should ensure they are engaging appropriately with the material(s) and reach out to peers and the instructor for support.

Submitting Assignments

All assignments (homework, knowledge checks, exams etc.) must be completed and submitted within the Canvas. Sending assignments (homework, knowledge checks, exams etc.), whether early, on time, or late to the professors is not permitted and will not be accepted. If there are technical issues, please notify the help desk, as well as the professor immediately.

Assignment Due Dates

All assignments will be due at the times listed above. These times are subject to change so please check back often. Please convert from Eastern Time to your local time zone using a [Time Zone Converter](#).

Late and Make-up Work Policy

All assignments are expected to be completed and submitted by the due date. Specifics about extensions and late assignments should be communicated with the professor before an assignment is late or missed.

Grading and Feedback

All assignments will be graded within 72 hours of submission, barring communicated exceptions and extenuating circumstances, to include assignment feedback.

Technology Requirements and Skills

Computer Hardware and Software

- High-speed Internet connection
- Laptop or desktop computer with a **minimum** of a 2 GHz processor and 2 GB of RAM
- Windows for PC computers OR Mac iOS for Apple computers.
- Complete Microsoft Office Suite or comparable and ability to use Adobe PDF software (install, download, open and convert)
- Latest versions of Mozilla Firefox, Chrome and/or Safari browsers

Technology Skills

- Using and navigating a computer operating system (e.g. Windows, Mac OS, etc.)
- Using a web browser, to include specific websites and search engines (e.g. Safari, Chrome, etc.)
- Logging into a user account on a website
- Navigating websites to find links and files
- Using a word processing software (e.g., Word) to create, save, and share files

Technology Help Guidelines

30-Minute Rule: When you encounter struggles with technology, give yourself 30 minutes to 'figure it out.' If you cannot, then post a message to the discussion board; your peers may have suggestions to assist you. You are also directed to contact the Helpdesk 24/7.

When posting or sending email requesting help with technology issues, whether to the Helpdesk, message board, or me use the following guidelines:

- Include a descriptive title for the subject field that includes 1) the name of course 2) the issue. Do NOT just simply type "Help" into the subject field or leave it blank.
- List the steps or describe the circumstance that preceded the technical issue or error. Include the exact wording of the error message.
- When possible, always include a screenshot(s) demonstrating the technical issue or error message.
- Also include what you have already tried to remedy the issue (rebooting, trying a different browser, etc.).

Course Policies, Expectations & Guidelines

Attendance Policy

Because this course is fully asynchronous, there are no required class meetings, and no attendance is taken. Instead, regular participation is demonstrated through engagement with course materials and completion of assignments by the stated deadlines. Students are expected to access weekly modules, complete required activities, and submit assignments on time.

Communication Policy

- Email course questions and personal concerns, including grading questions, to me directly. Do NOT submit posts of a personal nature to the discussion board unless it is a private post.
- Email will be checked at least twice per day Monday through Friday; Saturday and Sunday, email is checked once per day. During the week, I will respond to all emails within 24 hours; on weekends and holidays, allow up to 48 hours. If there are special circumstances that will delay my response, I will make an announcement to the class.
- Student Forum/Q&A discussion boards will be checked twice per day Monday through Friday; Saturday and Sunday, these discussion boards will be checked once per day.
- Virtual office hours will be held using Microsoft Teams. I will hold Virtual Office Hours every Tuesday at 7 PM EST. I am also happy to schedule one-on-one office hours in person.
- For questions related to technology, the Digital Learning Support team at <https://b.gatech.edu/digitallearningsupport> for assistance. You can also reach the Canvas Hotline by phone at 1(877) 259-8498 or by email at support@instructure.com.

Online Student Conduct and (N)etiquette

Although it is not expected to be a problem in a graduate-level class, students are asked to behave in the discussions and other class interactions professionally and civilly. If you are in doubt, do not post it! Instructors reserve the right to remove any postings deemed inappropriate, unprofessional, or otherwise distracting from the course.

University Use of Electronic Email

A university-assigned student e-mail account is the official university means of communication with all students at Georgia Institute of Technology. Students are responsible for all information sent to them via their university-assigned e-mail account. If a student chooses to forward information to their university e-mail account, he or she is responsible for all information, including attachments, sent to any other e-mail account. To stay current with university information, students are expected to check their official university e-mail account and other electronic communications on a frequent and consistent basis. Recognizing that some communications may be time-critical, the university recommends that electronic communications be checked minimally twice a week.

Plagiarism & Academic Integrity

Georgia Tech aims to cultivate a community based on trust, academic integrity, and honor. Students are expected to act according to the highest ethical standards. All students enrolled at Georgia Tech, and all its campuses, are to perform their academic work according to standards set by faculty members, departments, schools, and colleges of the university; and cheating and plagiarism constitute fraudulent misrepresentation for which no credit can be given and for which appropriate sanctions are warranted and will be applied. For information on Georgia Tech's Academic Honor Code, please visit <http://www.catalog.gatech.edu/policies/honor-code/>.

Any student suspected of cheating or plagiarizing on a quiz, exam, or assignment will be reported to the Office of Student Integrity, which will investigate the incident and identify the appropriate penalty for violations.

Collaboration & Group Work

Students are encouraged to study together and collaborate, but each student must submit their own work unless the assignment is specifically structured as a group assignment/project. Any reference sources (including online sources) used to prepare written assignments must be paraphrased in your own words and cited. Any student suspected of behavior in violation of the Georgia Tech Honor Code will be referred to the Office of Student Integrity. The Georgia Tech Honor Code is available on the Office of Student Integrity website (<http://www.osi.gatech.edu>)

Accommodations for Students with Disabilities

If you are a student with learning needs that require special accommodation, contact the Office of Disability Services at (404)894-2563 or <http://disabilityservices.gatech.edu/>, as soon as possible, to make an appointment to discuss your special needs and to obtain an accommodations letter. Please also e-mail me as soon as possible to set up a time to discuss your learning needs.

Copyright

Among the materials that may be protected by copyright law are the lectures, notes, and other material presented in class or as part of the course. Always assume the materials presented by an instructor are protected by copyright unless the instructor has stated otherwise.

Student-Faculty Expectations Agreement

At Georgia Tech we believe that it is important to strive for an atmosphere of mutual respect, acknowledgment, and responsibility between faculty members and the student body. See <https://catalog.gatech.edu/rules/21/> for an articulation of some basic expectations that you can have of me and that I have of you. In the end, simple respect for knowledge, hard work, and cordial interactions will help build the environment we seek. Therefore, I encourage you to remain committed to the ideals of Georgia Tech while in this class.

Course Schedule

Week/Dates	Topic	Readings	Assignments
<p>1 May 18, 2026</p>	<p>Standardization and American National Standards</p> <p>This module focuses on:</p> <ul style="list-style-type: none"> • The benefits of standardization • The American National Standards Institute (ANSI) • American National Standards (ANS) • The ANS process • The relationship between regulation and trade. • How the US participates in international standardization. 	<p>Required Readings:</p> <ul style="list-style-type: none"> • Manuele: Preface (Third Edition) and Introduction • Revision of OMB Circular No. A-119 • 29CFR1910.6 • 29CFR1926.6 • ANSI Essential Requirements (https://gatech.instructure.com/courses/318940/files/40086573/download?wrap=1) <p>Optional Suggested Readings:</p> <ul style="list-style-type: none"> • Standards Boost Business • ISO CASCO • ANS Process: Key Steps and Quick References • Standards Action • ISO IEC 	<p>Discussion:</p> <ul style="list-style-type: none"> • OSHA Regulations and ANS <p>Reflection Journal:</p> <ul style="list-style-type: none"> • Reflections on Week 1 Topics, Objectives, and Studies
<p>2 May 25, 2026</p>	<p>International Standards</p> <p>This module focuses on:</p> <ul style="list-style-type: none"> • The International Organization for Standardization (ISO) • What is the ISO standardization process? • What are the stages of development in ISO? • What is a consensus? • What are the options in ISO other than a standard? • What is the Vienna Agreement? 	<p>Required Readings:</p> <ul style="list-style-type: none"> • Manuele: Chapters 2, 3, • High level structure 2019 Annex L. <p>Optional Suggested Readings:</p> <ul style="list-style-type: none"> • SO/IEC Directives, Part 1: Consolidated ISO Supplement — Procedures specific to ISO • ISO/TC 283: Occupational health and safety management • International Labour Organization • #4. ISO FDIS 45003 (March 2021) 	<p>Discussion:</p> <ul style="list-style-type: none"> • International Influence on US Practices in OHS <p>Reflection Journal</p> <ul style="list-style-type: none"> • Reflections on Week 2 Topics, Objectives, and Studies

Week/Dates	Topic	Readings	Assignments
<p>3 June 1, 2026</p>	<p>Health and Safety Management System Standards (HSMSS) Part 1</p> <p>This module focuses on:</p> <ul style="list-style-type: none"> • Management System Standards (MSS) • The High-Level Structure (HLS) of an MSS • The requirements for Context of the Organization • The requirements for Leadership Commitment and Worker Participation • The requirements for Planning 	<p>Required Readings:</p> <p>Standards Sections:</p> <ul style="list-style-type: none"> • ISO 4, 5, and 6 • ANSI 4, 5, and 6 <p>Manuele:</p> <ul style="list-style-type: none"> • Chapters 1, 9, 11, 14 <p>Optional Suggested Readings:</p> <ul style="list-style-type: none"> • Annex SL Directive 1 Links to external site. • Manuele: Chapters 10, 12, 13, 15, 25 	<p>Reflection Journal</p> <ul style="list-style-type: none"> • Reflections on Week 3 Topics, Objectives, and Studies <p>H&S MS Objectives and Scope</p>
<p>4 June 8, 2026</p>	<p>Health and Safety Management System Standards (HSMSS) Part 2</p> <p>This module focuses on:</p> <ul style="list-style-type: none"> • The requirements for Support. • The requirements for Operations. • The requirements for Performance Evaluation. • The requirements for Improvement. 	<p>Required Readings:</p> <p>Standards Sections</p> <ul style="list-style-type: none"> • ISO 7, 8, 9, and 10 • ANSI 7, 8, 9, and 10 <p>Manuele, Chapters 15, 16, 17</p> <p>Optional Suggested Readings:</p> <ul style="list-style-type: none"> • ANSI z16.1 – 2022 Safety and Health Metrics and Performance Measures • ASSP/ISO TR – 45005-2021 Occupational Health and Safety Management – Safe Working During the COVID-19 Pandemic – General Guidelines for Organizations 	<p>Reflection Journal</p> <ul style="list-style-type: none"> • Reflections on Week 4 Topics, Objectives, and Studies <p>Risk/Hazard Register</p>

Week/Dates	Topic	Readings	Assignments
<p>5 June 15, 2026</p>	<p>Connections and Implementation</p> <p>This module focuses on:</p> <ul style="list-style-type: none"> • Connections and Implementation Success Factors for Performance within ISO 45001 and ANSI Z10.0. • Connections and Implementation Success Factors for Documented Information within ISO 45001 and ANSI Z10.0. • Connections and Implementation Success Factors for Internal Auditing and Management Review within ISO 45001 and ANSI Z10.0. • Connections and Implementation Success Factors for Incidents and Non-Conformities within ISO 45001 and ANSI Z10.0. 	<p>Required Readings:</p> <ul style="list-style-type: none"> • Manuele, Chapters 19, 20, 23 • ANSI z16.1 – 2022 Safety and Health Metrics and Performance Measures <p>Optional Suggested Readings:</p> <ul style="list-style-type: none"> • ASSP GM-Z10.100-2019 Guidance and Implementation Manual for ANSI/ASSP Z10.0-2019 Occupational Health and Safety Management Systems 	<p>Reflection Journal</p> <ul style="list-style-type: none"> • Reflections on Week 5 Topics, Objectives, and Studies <p>Group Exercise:</p> <ul style="list-style-type: none"> • Management Review
<p>6 June 22, 2026</p>	<p>Auditing</p> <p>This module focuses on:</p> <ul style="list-style-type: none"> • Conformity Assessment. • The parts of an audit program. • Developing an Internal audit schedule for your organization that addresses ISO 45001. • Corrective action 	<p>Required Readings:</p> <ul style="list-style-type: none"> • Manuele, Chapter 18 • ISO 19011:2018 • ISO/IEC 17021-1 	<p>Reflection Journal</p> <ul style="list-style-type: none"> • Reflections on Week 6 Topics, Objectives, and Studies <p>Written Exercise:</p> <ul style="list-style-type: none"> • Documented Internal Audit Process
<p>7 June 29, 2026</p>	<p>Integration</p> <p>This module focuses on:</p> <ul style="list-style-type: none"> • Integration with other Management system standards (MSS). 	<p>Required Readings:</p> <ul style="list-style-type: none"> • Manuele, Chapters 5, 6, 7, 24 <p>Optional Suggested Readings:</p> <ul style="list-style-type: none"> • ISO 9001 • ISO 14001 	<p>Gap Assessment & Final Report:</p>