



**TO:** Chief Executive Officers  
Chief Instructional Officers  
Chief Student Services Officers  
Academic Senate Presidents  
Articulation Officers  
Curriculum Specialists

**FROM:** James Todd, Vice Chancellor of Academic Affairs

**RE:** Regulatory Revisions to Course Outline of Record

The purpose of this memorandum is to provide guidance regarding the implementation of the Board of Governor's regulatory revisions to the Course Outline of Record requirements. This action was formally filed with the Office of Administrative Law and the California Secretary of State on September 24, 2025. The regulation becomes effective 30 days from the filing date on October 24, 2025. Pursuant to California Code of Regulations, section 52010, community college districts have 180 days from the effective date—April 22, 2026—to conform their local policies and procedures to the new requirements; as a result, colleges need to begin the process of implementing the regulatory revisions as part of their local review process. Full implementation and complete updates in the Chancellor's Office Curriculum Inventory (COCI) system is required by Fall 2030.

### **Background**

On January 14, 2025, following a broad systemwide consultation process, the California Community Colleges Board of Governors approved regulatory action regarding the Course Outline of Record. These regulatory changes were shaped by the California Community Colleges Curriculum Committee (5C), which prioritized Vision 2030–aligned practices for both credit and noncredit instruction. A working group developed a framework of principles and promising practices for discipline faculty, curriculum committees, and local academic senates to strengthen the design of course outlines and ensure district curriculum processes reflect innovation, inclusivity, and equity.

The course outline of record (COR) is one of the most significant documents in our system. It defines, in broad but essential terms, the structure and expectations of a course—what students will learn, how learning will be measured, and the academic standards that apply. While faculty retain full academic freedom in how they teach the course content, the COR provides the

foundation of consistency, transparency, and accountability. These amendments affirm the role of the COR as a living document that both safeguards rigor and reflects our collective commitment to equitable student success.

The regulatory revisions also align with recent legislative priorities, including Assembly Bill 1705 (2022), which requires colleges to maximize student completion of transfer-level math and English, and Assembly Bill 1111 (2021), which establishes a common course numbering system to ease student mobility across colleges. Together, the regulatory and legislative changes form a coherent vision for student-centered curriculum that is accessible, transparent, and equitable.

### **Regulatory Provisions and Key Changes**

**Curriculum Committees as Stewards of Equity and Inclusion (§ 55001).** For the first time, Title 5 charges curriculum committees with embedding equity and accessibility into the curriculum approval process. Committees must adopt written procedures ensuring that every course outline describes approaches that will engage diverse student populations and advance equitable outcomes. Also, the committee ensures there is a process that reflects the principles of Universal Design for Learning (UDL), providing multiple means of representation, engagement, and expression.

**A Strengthened and Publicly Accessible Course Outline of Record (§ 55001.5).** The new section 55001.5 clearly defines the COR as the official, publicly available record of a course, underscoring its role in transparency and accountability. The regulation requires CORs to include a comprehensive set of elements: title, catalog description, outcomes and objectives, units and hours (including contact hours, outside-of-class work, and total student learning hours), discipline assignment, and representative instructional materials. Notably, instructional materials should include consideration of open educational resources (OER) that meet accessibility standards. The COR must also provide representative descriptions of inclusive pedagogical approaches faculty may use to engage and support diverse learners.

- To support implementation, districts may use Common Course Numbering funds for necessary updates to local curriculum systems and processes.
- In addition, all COR information must now be directly entered into the Chancellor's Office Curriculum Inventory (COCI)—document uploads are no longer permitted. This shift reinforces statewide consistency and supports cleaner reporting.
- To aid implementation, the Ninth Edition of the Program and Course Approval Handbook (PCAH) will be released in Spring 2026, offering detailed guidance and best practices.

**Modernized Standards for Credit, Noncredit, and Community Services Courses (§ 55002).** The revisions to section 55002 streamline and modernize the standards that govern credit and

noncredit courses. For credit courses, learning must now be demonstrated through multiple, authentic means—including written work, projects, problem-solving, and skills demonstrations—ensuring that assessment reflects the diversity of students' learning styles and strengths. The regulation now requires CORs to include explicit accounting of instructional and outside-of-class hours, directly aligned to credit awards under section 55002.5. Importantly, updated language regarding “basic skills.”

For noncredit courses, the revised standards strengthen consistency by requiring CORs to specify subject matter, methodology, assignments or activities, and methods of evaluation, all taught by qualified instructors.

### **Advancing Success and Equity**

Taken together, these changes signify more than regulatory housekeeping—they reflect a vision of curriculum that is inclusive by design and transparent in practice. By requiring course outlines to highlight equity-minded approaches, mandating UDL accessibility, and ensuring public availability of CORs, the regulations affirm that every student, regardless of background, has the right to a learning environment designed for their success.

These revisions encourage faculty innovation and academic freedom while removing structural barriers that have historically hindered students, particularly those from disproportionately impacted communities. They call upon colleges to view the COR as a living commitment to equity, rigor, and opportunity. By aligning curriculum standards with recent legislative changes, the regulations also strengthen pathways to degree completion, transfer, and workforce readiness.

### **Next Steps for Colleges and Districts**

- **Revise curriculum committee procedures** to reflect the new equity, inclusion, and UDL language of § 55001.
- **Update COR templates and catalog systems** to include all elements required by § 55001.5, including representative descriptions of inclusive teaching approaches, and ensure that all CORs are publicly accessible.
- **Directly input COR information into COCI**, as uploads are no longer permitted; allocate Common Course Numbering funds for necessary local work and system updates.
- **Review local board policy** on credit-hour calculations to ensure consistency with § 55002.5 and confirm this alignment through annual certification.
- **Train curriculum personnel**—faculty, administrators, and staff—on the revised regulations and the Chancellor's Office Program and Course Approval Handbook.
- **Ensure prompt and accurate reporting** of approved courses to COCI and MIS.

- **Align enrollment practices** with § 55003 and § 58106, ensuring that prerequisites and limitations on enrollment are validated fairly and equitably.

## **Conclusion**

The revised regulations remind us that curriculum is at the heart of equity. Each course outline we design, review, and approve is more than a technical record—it is an invitation to students, a promise of belonging, and a pathway to success. By embedding inclusive practices, requiring accessibility, and affirming transparency, these Title 5 revisions ensure that our colleges continue to be places where every student can thrive.

The Chancellor’s Office looks forward to supporting faculty, curriculum committees, and administrators in bringing these changes to life. Together, we can ensure that the Course Outline of Record is not only a compliance requirement but also a symbol of our shared values: access, equity, and excellence in student learning.

cc: Sonya Christian, Chancellor  
Rowena Tomaneng, Deputy Chancellor  
Chris Ferguson, Executive Vice Chancellor of Finance and Strategic Initiatives  
John Hetts, Executive Vice Chancellor for Research, Analytics and Data

## **Appendix A: Brief Summary of Regulatory Changes**

Approved regulatory changes may be found in their entirety [here](#).

Section	Summary
§ 55001. Curriculum Committee	<ul style="list-style-type: none"><li>• New Sub Section</li><li>• Details the role of the curriculum committee</li></ul>

<p>§ 55001.5. Course Outlines of Record.</p>	<ul style="list-style-type: none"><li>• Separated from §55002.0</li><li>• Additional requirements added specific to Common Course Numbering</li><li>• Removed Basic Skills Requirements;</li><li>• Amended language from Prerequisites and Corequisites to Enrollment Requirements and included enrollment limitations;</li></ul>
<p>§ 55002. Standards and Criteria for Courses</p>	<ul style="list-style-type: none"><li>• Combined Degree-applicable and nondegree applicable sections to eliminate redundancy and</li><li>• Added language to nondegree applicable courses section to credit and noncredit sections in order reflect AB 705/1705 requirements and guidance.</li></ul>
<p>§ 55100. Credit Course Approval.</p>	<ul style="list-style-type: none"><li>• Clean up language</li></ul>



## Catalog Description

---

### ETHS 1 - Introduction to Ethnic Studies

**Transfer Status:** CSU/UC

**Unit(s):** 3.00

**Lecture:** 51.00 Contact hours/102.00 Out of class hours/153.00 Total hours/3.00 Unit(s)

#### Course Description:

Ethnic Studies is the critical and interdisciplinary study of race, ethnicity, and indigeneity with a focus on analysis of social, political, economic, educational, and cultural developments of Native Americans, African Americans, Asian Americans, Latina/o/x Americans, and other people of color within the United States. This course introduces students to key theories, scholarly works, and ideas that have formed the field of Ethnic Studies, including racism, inequities, settler colonialism, and community engagement. Students will critically explore the intersections of race, power, ethnicity, class, religion, sexuality and gender, with a focus on the experiences, perspectives and knowledge produced by communities of color. Emphasis on movements for liberation, resistance, decolonization, and self-determination in relation to current structural issues.

## Objectives

---

Upon successful completion of this course, the student should be able to:

- ~~1. Analyze and articulate concepts of ethnic studies, including but not limited to race and ethnicity, racialization, equity, ethno-centrism, eurocentrism, white supremacy, self-determination, liberation, decolonization and anti-racism.~~
- ~~2. Apply theory to describe critical developments in the histories, cultures, cultural/artistic expressions and intellectual traditions of one or more of the following four historically defined racialized core groups: Native Americans, African Americans, Latino/a/x Americans, and/or Asian Americans, with special focus on lived experiences and social struggles, and emphasizing agency and group affirmation.~~
- ~~3. Assess the growth and diversity of ethnic and racial groups in the United States.~~
- ~~4. Critically analyze the intersection of race and racism with other forms of difference affected by hierarchy and oppression, such as class, gender, sexuality, religion, spirituality, national origin, immigration status, ability, tribal citizenship, sovereignty, language, and/or age in Native American, African American, Asian American and/or Latino/a/x American communities.~~
- ~~5. Critically review how struggle, resistance, social justice, solidarity, and liberation as experienced by communities of color, are relevant to current and structural issues such as politics relating to immigration, reparations, multiculturalism, etc.~~
- ~~6. Demonstrate active engagement with anti-racist/anti-colonialist issues, practices and movements in communities of color to build a diverse, just, and equitable society beyond the classroom.~~

1. Analyze and articulate concepts such as race and racism, racialization, ethnicity, equity, ethno-centrism, eurocentrism, white supremacy, self-determination, liberation, decolonization, sovereignty, imperialism, settler colonialism, and anti-racism as analyzed in any one or more of the following: Native American Studies, African American Studies, Asian American Studies, and Latina and Latino American Studies.
2. Apply theory and knowledge produced by the above-mentioned populations to describe the critical events, histories, cultures, cultural/artistic expressions, intellectual traditions, contributions, lived-experiences and social struggles of those groups with a particular emphasis on agency and group-affirmation.
3. Critically analyze the intersection of race and racism as they relate to class, gender, sexuality, religion, spirituality, national origin, immigration status, ability, tribal citizenship, sovereignty, language, and/or age in the communities of the above-mentioned populations.
4. Critically analyze, in historical context, how struggle, resistance, racial and social justice, solidarity, and liberation, as experienced and enacted by the above-mentioned populations are relevant to current and structural issues at the local, national, international, and transnational levels. Such issues may include, for example, immigration, reparations, settler colonialism, multiculturalism, and language policies.
5. Describe and engage with anti-racist, abolitionist, and anti-colonial thought, issues, practices, and movements in communities of the above-mentioned populations seeking a more just and equitable society.
6. Assess the growth and diversity of ethnic and racial groups in the United States, emphasizing how diverse histories and lived experiences have influenced the nation's social, political, and economic development

## Course Content

---

### Topic Titles / Suggested Time Topic Lecture

#### Topics

#### Lec Hrs

~~Introduction to Ethnic Studies: History of the Ethnic Studies discipline~~

6.00

Introduction to the history and development of the Ethnic Studies discipline. (SLO 1)

~~Key frameworks and concepts by disciplinary Ethnic Studies scholars, such as decolonization; women of color feminism; settler colonialism; race and racialization; labor and globalization; homelands, migration and diaspora; race and citizenship; self-determination, sovereignty, and liberation; family, community, and culture.~~

6.00

Key frameworks by Ethnic Studies disciplinary scholars, such as race and racialization; settler colonialism and decolonization; women of color feminisms; labor and globalization; transnationalism; migration; diaspora; race and citizenship; self-determination, sovereignty, and liberation; family, community, and culture. (SLO 1)

6.00

~~Key concepts in Ethnic Studies, such as race, ethnicity, intersectionality, indigeneity, diaspora, migration, nationhood, ethnocentrism, white supremacy, patriarchy, settler colonialism, imperialism, genocide, slavery, segregation, internment, and other forms of systematic dehumanization experienced by different racial and ethnic groups.~~

Analyzing race, power and privilege using Ethnic Studies frameworks and foundational literature, for example Omi and Winant's racial formation theory, Crenshaw's intersectionality framework, Hodges on white supremacy. (SLO 2)

6.00

Comparative historical and contemporary experiences, perspectives, and knowledge of Native American, African American, Asian American, and Latina/o/x communities as a resource for agency and self-determination. (SLO 2)

The intersection of race and racism with other hierarchies and identities such as class, gender, sexuality, national origin, immigration status, indigeneity, age and ability. (SLO 3)

6.00

Self-determination, social movements, organizations, solidarities, and other forms of political and social resistance to privilege and inequality, including anti-racism, decolonization, anti-imperialism, reparations, equity, gender equality, labor rights, civil rights, immigrant rights, and human rights. (SLO 5)

6.00

The role of racial power structures in creating, maintaining and reproducing social, and political, and economic inequities in institutions and systems such as housing, healthcare, education, labor, media, civil rights, criminal justice, and government. (SLOs 4 & 6)

6.00

Engagement with in decolonial, and anti-racist, and grassroots movements and practices within communities, including struggles for social justice, liberation, and decolonialization. (SLOs 5 & 6)

6.00

~~A-Racial identity and forms of resistance in cultural productions such as art, film, literature, and/or music produced by and reflecting the experiences and perspectives of Native American, African American, Asian American, and/or Latina/o/x communities. (SLOs 2 & 5)~~

3.00

**Total Hours: 51.00**

## Methods of Instruction

---

- a. Class Activities
- b. Collaborative Group Work
- c. Discussion
- d. Homework: Students are required to complete two hours of outside-of-class homework for each hour of lecture
- e. Lecture
- f. Reading Assignments

## Methods of Evaluation

---

- A. Exams/Tests
- B. Quizzes
- C. Projects
- D. Written Assignments
- E. Class Discussion

## Examples of Assignments

---

### Reading Assignments

- ~~1. Analyze the concepts of (1) race and (2) ethnicity from Omi and Winant's (2014) racial formation framework to examine race as a social construct. Next, choose from a list of historical periods and, in a two-page paper, explain how racialization occurred in relation to a specific historical case study (in health, education, law, politics, etc.), incorporating other concepts including ideology, settler colonialism, imperialism, nativism, and/or manifest destiny.~~
  - ~~2. Critically examine an assigned reading that discusses intersectionality—race, class, gender, sexuality, religion and spirituality, immigration status—in relation to concrete social, political, and/or economic experiences of one of the four historically racialized groups. In a two-page essay, explain how intersectionality applies to the experiences of their chosen group.~~
1. Read Omi and Winant's (2014) chapter and analyze the concepts of (1) race and (2) ethnicity from their racial formation framework to examine race as a social construct. After choosing from a list of historical periods, draft a two-page paper explaining how racialization occurred in relation to a specific historical case study (in health, education, law, politics, etc.), incorporating other concepts such as ideology, settler colonialism, imperialism, nativism, and/or manifest destiny. (SLO 1)
  2. Read Pagan's article "Los Angeles Geopolitics and the Zoot Suit Riot, 1943." Draft a one-page reflection paper discussing zoot suit fashion as resistance among African Americans, Mexican Americans, Filipinos, and Japanese Americans. Add an example from current or more recent fashion trends that could also be considered a form of resistance. Come to class prepared to discuss your reflection. (SLO 4)

### Writing Assignments

- ~~1. In a 3-4 page final essay, compare and contrast the racialized experiences of at least two specific minoritized groups, applying an interdisciplinary lens to illustrate the social, political, and economic~~

~~impact of racial meanings in different fields (e.g. education, law, policy, health, etc.).~~

~~2. Research to locate an organization involved in community agency and activism to promote social change in a particular context (health, education, law, politics, etc.). Based on this research, draft a one-page infographic that presents key points from your analysis of this organization's written or oral advocacy, and come to class prepared to engage in a whole-class discussion comparing the objectives and reasoning of each organization.~~

1. Draft a four-page, double-spaced essay in which you situate yourself in relation to course themes, reflecting on your positionality, intersectionality, background and lived experience. Consider how these factors influence the ways you understand (and are shaped by) histories of colonization, empire, migration, resistance, identity, and inequality. (SLOs 1 & 3)
2. Read the assigned article about community activism in preparation for our guest lecturer from a local community organization. During the guest lecture, take careful notes connecting it to the article. Then, draft a two-page response in which you discuss how the lecture enhanced your understanding of the article, concluding with two paragraphs addressing how community engagement can function as a form of resistance. (SLO 5)

### **Out-of-Class Assignments**

- ~~1. Use a photo, either found online or taken in your local community, to explore connections to the week's readings, concepts or themes. Analyze the photo and prepare a recorded video presentation in which you explain its cultural, social, and/or historical significance. The analysis should apply key Ethnic Studies themes such as identity, power, resistance, and/or social justice.~~
- ~~2. Conduct a research project applying major Ethnic Studies concepts and/or frameworks to a particular contemporary setting where significant racial/intersectional inequities exist (e.g. healthcare, criminal justice, education, etc.). Referencing your area of interest or major (e.g. art, business, education, law, psychology, social work, etc.), examine how these concepts might apply to their future career setting. Create and deliver a presentation that outlines a solution-based proposal to engage in future decolonial work. Your proposal may be interactive/mixed media, digital, and/or formal writing.~~
1. Attend a campus event that addresses the experiences of one of the four racialized groups (e.g. Big Time, Belonging at Butte, Hispanic Serving Institution conference). Draft a two-page reflection that includes examples of course concepts, such as intersectionality, positionality, cultural relevance, etc. Prepare to discuss your reflection with classmates in small groups. An alternate assignment is available for those with accessibility needs. (SLO 5)
2. Use a photo that reflects the cultural/artistic expressions, intellectual traditions, contributions, lived-experiences and/or social struggles of a racialized community, either found online or taken yourself in a public space, to explore connections to the week's Ethnic Studies readings, concepts or themes. Analyze the photo and prepare a five-minute recorded video presentation in which you explain its cultural, social, and/or historical significance. Your analysis should apply key Ethnic Studies concepts such as identity, power, resistance, and/or social justice. (SLO 2)

## Recommended Materials of Instruction

---

Michael Omi. (2014). *Racial Formation in the United States*. Routledge, 3rd. 978-0415520317.

~~David Yoo et al. (2021). *Knowledge for Justice: An Ethnic Studies Reader*. UCLA Chicano Studies Research Center Press, 1st. 978-0935626704.~~

~~Angela Davis. (1983). *Women, Race & Class*. Vintage, 1st. 978-0394713519.~~

~~Charles Gallagher. (2022). *Rethinking the Color Line: Readings in Race and Ethnicity*. Sage Publications, 7th. 9781071834213.~~

~~Paula Rothenberg et al. (2024). *Race, Class, and Gender in the United States: An Integrated Study*. Macmillan, 12th. 9781319343552.~~

Charles Gallagher, 2022, *Rethinking the Color Line: Readings in Race and Ethnicity*, 7th ed., Sage Publications  
ISBN-13 9781071834213

Roxanne Dunbar-Ortiz, 2021, *Not a Nation of Immigrants: Settler Colonialism, White Supremacy, and a History of Erasure and Exclusion*, Beacon Press,  
ISBN- 0807036293

Natalia Molina, *How Race Is Made in America: Immigration, Citizenship, and the Historical Power of Racial Scripts*, 2014, University of California Press,  
ISBN-10: 9780520280083

Patricia Hill Collins, *Black Feminist Thought, 30th Anniversary Edition: Knowledge, Consciousness, and the Politics of Empowerment*. Routledge, 2022  
ISBN 9781032157832

Pulido, Laura. *Black, Brown, Yellow, and Left: Radical Activism in Los Angeles*. Berkeley: University of California Press, 2006.  
ISBN-10 : 0520245202

Anzaldúa, *Borderlands/La Frontera: The New Mestiza*, 5th edition. Aunt Lute Books, 2022  
ISBN-13 : 978-1951874025

Ronald Takaki, *A Different Mirror: A History of Multicultural America*. Back Bay Books, 2023.  
ISBN-13 : 978-0316499071

### Zero Cost Textbook

Fisher, K., Viveros Espinza-Kulick, et al. (2023) *Introduction to Ethnic Studies*. ASCCC Open Educational Resources Initiative (OERI).

[https://socialsci.libretexts.org/Bookshelves/Ethnic\\_Studies/Introduction\\_to\\_Ethnic\\_Studies\\_\(Fischer\\_et\\_al.\)](https://socialsci.libretexts.org/Bookshelves/Ethnic_Studies/Introduction_to_Ethnic_Studies_(Fischer_et_al.))

## Minimum Qualifications

---

Ethnic Studies (Masters Required)

---

Created/Revised by: McCabe, Deborah

Date:10.20.25



## Catalog Description

---

### ETHS 20 - Introduction to Native American Studies

**Transfer Status:** CSU/UC

**Unit(s):** 3.00

**Lecture:** 51.00 Contact hours/102.00 Out of class hours/153.00 Total hours/3.00 Unit(s)

**Course Description:**

~~This course examines the historical and present-day conditions and experiences of American Indian/Native American communities in the United States. Students will study the constraints imposed on American Indians/Native Americans in the U.S. by political, economic, legal and social developments. This course is grounded in an understanding of indigeneity and imperialism, and of settler colonialism as the primary form of domination confronted by American Indian/Native American peoples. Topics include the diversity of Indigenous identities, Native sovereignty and nationhood, tribal governments and economies, histories of Indigenous-White settler relations, and indigenous people's artistic and philosophical contributions to U.S. culture and society. Special emphasis is on American Indian/Native American practices of cultural and political resistance, resilience, and regeneration.~~

This course introduces students to the field of Native American Studies through its origins and key literature, theories and methodologies. Student learning is grounded in an understanding of indigeneity, imperialism and settler colonialism as primary critical frameworks for understanding the historical and present-day domination confronted by American Indian/Native American peoples. Students will study the oppression of American Indians/Native Americans in the U.S. through political, economic, legal and social developments, and American Indian/Native American practices of cultural and political resistance, resilience, and regeneration. Further topics include the diversity of Indigenous identities, Native sovereignty and nationhood, tribal governments and economies, histories of Indigenous-White settler relations, and indigenous people's artistic and philosophical contributions to U.S. culture and society.

## Objectives

---

Upon successful completion of this course, the student should be able to:

- ~~1. Identify and describe diverse American Indian/Native American cultures in the United States, especially in terms of the variety of kinship forms, cultural norms and customs, social and political structures, economic systems and geographies/ecosystems.~~
- ~~2. Compare beliefs and attitudes among American Indian/Native American cultures relating to gender roles, sexuality, age, social class and division of labor.~~
- ~~3. Critique settler-colonial discourses that position Indigenous peoples as savages, "noble savages", disposable enemies, objects/artifacts or extinct.~~
- ~~4. Analyze structural and systemic events and processes (political, economic, legal and social) involved in divesting Indigenous people of their culture, language, land and resources.~~
- ~~5. Describe American Indian/Native American educational systems and religions/philosophies, their~~

suppression, and Native resistance to that suppression.

- ~~6. Describe past and present American Indian/Native American activist movements to reclaim knowledge, culture, language, land and resources.~~
- ~~7. Analyze and articulate concepts such as race and racism, racialization, ethnicity, equity, ethno-centrism, eurocentrism, white supremacy, self-determination, liberation, decolonization, sovereignty, imperialism, settler colonialism, and anti-racism as analyzed in American Indian/Native American Studies.~~
- ~~8. Identify and apply Indigenous ways of knowing and being, as well as theories produced by American Indians/Native Americans, to describe events, histories, cultures, traditions, struggles with an emphasis on agency and group affirmation.~~
- ~~9. Critically analyze the intersection of race and racism as they relate to class, gender, sexuality, religion, spirituality, national origin, immigration status, ability, tribal citizenship, sovereignty, language, and/or age in American Indian/Native American communities.~~
- ~~10. Critically analyze how struggle, resistance, racial and social justice, solidarity, and liberation, as experienced and enacted by American Indian/Native Americans, are relevant to current and structural issues such as communal, national, international, and transnational politics, for example, in immigration, reparations, settler-colonialism, multiculturalism and language policies.~~
- ~~11. Describe and actively engage with anti-racist and anti-colonial issues and the practices and movements in American Indian/Native American communities to build a just and equitable society.~~

1. Analyze and articulate concepts such as race and racism, racialization, ethnicity, equity, ethno-centrism, eurocentrism, white supremacy, self-determination, liberation, decolonization, sovereignty, imperialism, settler colonialism, and anti-racism, as explained and analyzed by pivotal figures in the field of American Indian/Native American Studies.
2. Apply theory and knowledge produced by American Indian/Native American communities to describe the critical events, histories, cultures, intellectual traditions, contributions, lived experiences and social struggles of this group with a particular emphasis on agency, group affirmation and Indigenous ways of knowing and being.
3. Critically analyze the intersection of race and racism as they relate to class, gender, sexuality, religion, spirituality, national origin, immigration status, ability, tribal citizenship, sovereignty, language, and/or age in American Indian/Native American communities.
4. Explain and assess how struggle, resistance, racial and social justice, solidarity, and liberation, as experienced, enacted, and studied by American Indian/Native Americans, are relevant to current and structural issues such as communal, national, international, and transnational politics, for example, in immigration, reparations, settler-colonialism, multiculturalism and language policies.
5. Describe and actively engage with anti-racist and anti-colonial issues and the practices and movements in American Indian/Native American communities to build a just and equitable society.

## Course Content

### Topic Titles / Suggested Time Topic

#### Lecture

#### Topics

#### Lec Hrs

~~Introduction to race and ethnicity (race and biology, origins of the race concept, racialization, ethnicity and identity, intersectionality, social inequality)~~

3.00

The historical and intellectual development of Native American Studies, including for example its origins as an endogenous discipline; focus on sovereignty, indigeneity and the deconstruction of colonization; emphasis on oral histories, tribal points of view, and Native critical intelligence and moral action; rejection of exogeneous research and epistemologies (colonialist research, social scientific methods); relation to Ethnic Studies. (SLO 2)

3.00

~~Race, ethnicity and power (racism, colonialism, settler colonialism, imperialism, systemic oppression, prejudice and discrimination, acculturation, ethnocide, genocide, ethnocentrism, Eurocentrism, white supremacy, including legal bases of oppression)~~

Introduction to theories of race and ethnicity, especially as developed by American Indian/Native American scholars, including for example race and biology, origins of the race concept, racialization, ethnicity and identity, intersectionality, social inequality. (SLO 1)

3.00

~~Research on Indigenous peoples (colonialist, oral histories, primary sources, written history, sociocultural approaches, Ethnic Studies and American Indian/Native American Studies)~~

~~The framing of Native identities in the United States (critical race theory, postcolonial theories, Orientalism, Native ancestry and federally recognized Indians, inter- and intra-group conflicts, Indigenous migrants, cultural diversity of American Indians/Native Americans, tribal sovereignty and nationhood, tribal citizenship as a category of personhood)~~

3.00

The framing of Native identities in the United States, including topics such as Critical Race Theory, postcolonial theories, Native ancestry and federally recognized Indianism, inter- and intra-group conflicts, indigenous migrants, tribal sovereignty and nationhood, tribal citizenship as a category of personhood, cultural diversity of American Indians/Native Americans, and other settler-colonial discourses that position Indigenous peoples as savages, "noble savages", disposable enemies, objects/artifacts or extinct. (SLO 3)

6.00

Race, ethnicity and power as critical lenses for the study of American Indian/Native American history and lived experience, including for example racism, colonialism, settler colonialism, imperialism, systemic oppression, prejudice and discrimination, acculturation, ethnocide, genocide, ethnocentrism, Eurocentrism, white supremacy, and other legal bases of oppression. (SLO 1)

The reservation system vs. American Indian/Native American perspectives on space and place, including for example (origin stories, sacred geography, natural resources, migration, connection

to land, and dispossession. (SLO 2)

Education, colonial oppression, and Native resistance, including for example (linguicide, genocide, persecution, boarding schools, and language erasure and revitalization. (SLO 2) 6.00

American Indian/Native American religious and philosophical beliefs and revivals (e.g. two-spirit revival). (SLO 3) 6.00

Beliefs and attitudes among American Indian/Native American cultures relating to gender roles, sexuality, age, social class and division of labor. (SLO 3)

The role of casinos in contemporary tribal governments and economies. (SLO 2) 3.00

~~American Indian/Native Americans and the U.S. healthcare system~~ (American Indian/Native American philosophical, spiritual, and medicinal approaches to healing, in relation to the U.S. healthcare system, including for example historical health trauma, healthcare microaggressions, environmental racism. (SLO 4) 6.00

Popular culture, sports, art, film, literature, music, dance and folklore reflecting American Indian/Native American cultural production and critical consciousness. (SLO 2) 6.00

Native activism past and present today, including for example (environmental activism, promoting food justice, the Standing Rock milestone, missing and murdered indigenous people ("femicide"), national and transnational indigenous rights movements, and other activist movements to reclaim knowledge, culture, language, land, and resources. (SLO 5) 6.00

**Total Hours: 51.00**

## Methods of Instruction

---

- A. Collaborative Group Work
- B. Discussion
- C. Homework: Students are required to complete two hours of outside-of-class homework for each hour of lecture
- D. Lecture
- E. Term project

## Methods of Evaluation

---

- A. Exams/Tests
- B. Quizzes
- C. Projects
- D. Written Assignments
- E. Class Discussion
- F. Written assignments (Each student will be required to write at least 2,500 words for credit in the course. This work will be evaluated on content and syntax.)

## Examples of Assignments

---

### Reading Assignments

- ~~1. Read the Talbot (2015) article and come to class prepared to work in groups to define "wilding" and apply it to Euro-American interactions with American Indians/Native Americans in California, especially regarding settler colonialism and genocide.~~
- ~~2. Read Joy Harjo's "She Had Some Horses" and write a one-page reflection on the main themes of the poem.~~
1. Read the article by Native scholar Talbot (2015) and come to class prepared to work in groups to define the concept of "wilding" and apply it to Euro-American interactions with American Indians/Native Americans in California, especially regarding settler colonialism and genocide. (SLO 1)
2. Read Native scholar Joy Harjo's "She Had Some Horses" and write a one-page reflection on the main themes of the poem as applied to American Indian/Native American experience: womanhood, oppression, and the search for identity in a Euro-American world. Come to class prepared to discuss those themes with a partner. (SLO 3)

### Writing Assignments

- ~~3. Write a 1500-word essay on a particular American Indian/Native American social justice movement and how it worked on the national or international level to promote a just and equitable society.~~
- ~~4. Draft a two-page written analysis of a specific change within one Indigenous culture. For example, you could analyze and explain the impact of fish-ins for the Metis people of Canada and how this contributed to the Pan-Indian movement in national and transnational politics.~~
1. Choose an American Indian/Native American social justice movement from the list provided in class, and conduct research to understand its origins, purpose, and activities. Write a 1500-word essay in which you explain the legal, political and/or social forms of oppression the movement targeted and analyze the movement in terms of Gerald Vizenor's concept of "survance". (SLO 5)
2. Complete pre-visit research and prepare a list of questions for a guest speaker, who will cover topics such as local Native community issues or culture (Hand Games, Big Time), traditional food sources like salmon or acorns, land preservation (Traditional Ecological Knowledge – TEK). Then draft a post-visit reflection (two pages maximum) connecting the speaker's insights to course topics. (SLO 2)

### Out-of-Class Assignments

- ~~5. Attend a local cultural event highlighting Native American experiences (e.g. Butte College's "Big Time" or a film viewing and discussion). Bring to class a one-page reaction paper in which you explain what you found most surprising and meaningful about the event. Be prepared to discuss the event with classmates.~~
- ~~6. Conduct some independent research to discover how American Indian/Native American activists are involved in environmental movements. Bring to class a one-paragraph summary of the best article or other source material you found (including full citation). Be prepared to discuss in groups how environmentalism and civil rights overlap in the United States.~~

1. Visit the campus Native American Center or another campus community event, e.g. Missing Murdered Indigenous Women (MMIW), Orange Shirt Day (Native American Boarding School Awareness), Big Time, or Acorn Demonstration. Think about the connections between our curriculum and Native communities. Draft a 2-page reflection in which you analyze the experience and draw connections between the curriculum and this real-world experience. An alternate assignment is available for those with accessibility needs. (SLO 5)
2. Conduct independent research to discover how American Indian/Native American activists are involved in current or recent environmental movements. Bring to class a one-paragraph summary of the best source material you found, including the full citation. Be prepared to discuss in groups how environmentalism relates to American Indian/Native American oppression and connections natural resources and land. (SLO 4)

## Recommended Materials of Instruction

~~Bonvillain, Nancy. (2024). *Native Nations*. Rowman and Littlefield, 3rd. 978-1538170410.~~

Erdrich, Louise. (2020). *The Night Watchman*. Harper ISBN-13: 978-0062671189

Momaday, N. Scott. (2020). *Earth Keeper*. Harper ISBN-13: 978-0063009332

Harjo, Joy. (2020). *An American Sunrise: Poems*. W. W. Norton & Company ISBN-13: 978-0393358483

Deloria, Philip J. (2022). *Playing Indian*. Yale University Press. ISBN-13: 978-0300264845

Silko, Leslie Marmon. (2006) *Ceremony*. Penguin Classics. ISBN-13: 978-0143104919 (classic text, no new edition)

Ortiz, Roxanne. (2015). *An Indigenous Peoples History of The United States (ReVisioning History)*. Beacon Press.

ISBN-13: 978-0807057834 (classic text, no new edition)

Dunbar-Ortiz, Roxanne. (2021). *Not "A nation of immigrants": Settler Colonialism, White Supremacy, and A History of Erasure and Exclusion*. *Beacon Press, 1st*. 978-0807036297.

Gilio-Whitaker, Dina. (2020). *As Long as Grass Grows: The Indigenous Fight for Environmental Justice, from Colonization to Standing Rock*. *Beacon Press, N/A*. 978-0807028360.

~~Barsh and Henderson. (2022). *The Road: Indian Tribes and Political Liberty*. *University of California Press, 1st*. 9780520326736.~~

~~Akins, Damon B. and Bauer, William J. Jr. (2022). *We Are the Land: A History of Native California*. *University of California Press, 1st*. 9780520280502.~~

~~Lobo, Susan, Talbot, Steve, and Carlston, Traci Morris. (2009). *Native American Voices: A Reader*. *Routledge, 3rd*. 9781138687684.~~

### Zero Cost Textbook

King, Thomas. (2008). *The truth about stories: A Native narrative*. University of Minnesota Press. ISBN-13: 978-0-8166-4627-2

Teves, S. N., Smith, A., & Raheja, M. (Eds.). (2015). *Native studies keywords*. University of Arizona Press. ISBN-13: 9780816531509

Lemay, Jenna. *Shingwauk Narratives: Sharing Residential School History* (2022). Shingwauk Residential Schools Centre. OER. <https://ecampusontario.pressbooks.pub/shingwauknarratives/> Evers, L. & Toelken, B. *Native American Oral Traditions* (2001) Utah State University Press. OER

[https://digitalcommons.usu.edu/usupress\\_pubs/78/](https://digitalcommons.usu.edu/usupress_pubs/78/) Toelken, B. *The Anguish of Snails: Native American*

~~*Folklore in the West* (2003) Utah State University Press. OER~~

~~[https://digitalcommons.usu.edu/usupress\\_pubs/14/](https://digitalcommons.usu.edu/usupress_pubs/14/)~~

## Minimum Qualifications

---

Ethnic Studies (Masters Required), or Sociology (Masters Required)

---

**Created/Revised by:** McCabe, Deborah

**Date:**10/20/2025



## Catalog Description

---

### PSY 10 - Positive Psychology

**Transfer Status:** CSU/UC

**Unit(s):** 3.00

**Lecture:** 51.00 Contact hours/102.00 Out of class hours/153.00 Total hours/3.00 Unit(s)

**Course Description:**

This course introduces the scientific study and practices of the emerging field of Positive Psychology. Students will explore various research methods, theories and empirically supported applications of positive psychology as they relate to human traits that will include, but not be limited to: personal growth, well-being, gratitude, happiness and resilience. This course also reviews the history of positive psychology and the contributions this new field has made to several traditional areas in the field of psychology.

## Objectives

---

Upon successful completion of this course, the student should be able to:

1. Identify the historical and philosophical foundations of positive psychology versus traditional psychological models and theories.
2. Critically evaluate the ideas and research findings in positive psychology.
3. Discuss the major research findings and applications of positive psychology.
4. Evaluate scientific literature relating to how well-being is enhanced by positive traits such as happiness, gratitude, emotional intelligence, love and resilience.
5. ~~Formulate and execute a plan to facilitate positive growth and change in their life based on positive psychology's principles.— (Delete)~~
6. Describe common characteristics of positive institutions. (Add)
7. Compare research findings with those of Positive Psychology with those of traditional fields of psychology, including Neuroscience, Cognitive Information Processing, Lifespan Development, Social Psychology, Personality Theory and Clinical Psychology. (Add)
8. Evaluate scientific evidence for the validity of empirical claims in contemporary positive psychological research (Add)

## Course Content

---

### Topic Titles / Suggested Time Topic

<u>Topics</u>	<u>Lecture</u>	<u>Lec Hrs</u>
Introduction to Positive Psychology		
a. Evolution and history of positive psychology		
b. Focus on including the health model vs illness/disorder		
c. Theories of positive psychology		
d. Survey literature on well-being		
		3.00

The Research Methods in Positive Psychology Research	
a. Principles and standards relating to the scientific method	
b. Critical thinking	
c. Observations, case studies, surveys and experiments (independent & dependent variables)	3.00
d. Correlations	
e. Ethical and socio-cultural issues	
Meaning and Measure of Well-Being	
a. Objective vs subjective measures related to well-being	
b. Negative vs positive measures of well-being	3.00
c. Reliability and validity of measures of well-being	
Well-Being Across the Life Span	
a. Study Erikson's Psychosocial Stages of Development	
b. Living well in each stage of life	3.00
c. Stage models and well-being	
Happiness and Life Satisfaction	
a. Defining happiness	
b. Measuring happiness	3.00
c. Increasing happiness	
Positive Thinking and Emotions	
a. Theories explored	
b. Neurological foundations of emotions	
c. Social and cultural influences of emotions	3.00
d. Undo negative emotions	
e. Building enduring resources to improve well-being	
f. General theory of positivity	
Emotional Intelligence (EI)	
a. Theories and models of EI	
b. Development of EI	3.00
c. Neurological basis of EI	
Positive Health and Stress	
a. Biological basis of stress	
b. Social Readjustment rating Scale of Life Change events	3.00
c. Healthy and unhealthy coping mechanisms	
d. Managing stress	
Positive Relationships	3.00
a. Examine research by Gottman & Robins related to relationships	
b. Equity, empathy and attachment theories explored	

- c. Research related to love, liking, friendship
- d. Positive parenting relationships
- e. ~~Applications (Delete)~~

#### Resilience and Growth

- a. Explore theories (e.g. Seligman)
- b. Research and clinical perspectives 3.00
- c. Examining growth through trauma

#### Money, Happiness and Culture

- a. Paradox of affluence
- b. Well-being across nations 3.00
- c. Culture and well-being

#### Gratitude, Hope and Optimism

- a. Factors contributing to gratitude
- b. Research related to gratitude and its benefits 3.00
- c. Theories, assessment and development of hope
- d. Research and assessment of optimism

#### Flow, Mindfulness and Wisdom

- a. Western and Eastern models of mindfulness
- b. Review theories of Flow (Seligman & Csikszentmihalyi) 3.00
- c. Definition of wisdom and implicit and explicit theories
- d. ~~Applications (Delete)~~

#### Forgiveness, Empathy and Altruism

- a. Definitions of empathy and compassion
- b. ~~Related~~ Research findings 3.00
- e. ~~Applications (Delete)~~

#### Positive Institutions

- a. ~~Research related to common characteristics of Positive Institutions:~~
  - 1. ~~The Positive Family~~
  - 2. ~~The Positive Interpersonal Relationships~~
  - 3. ~~The Positive School~~
  - 4. ~~The Positive Workplace~~
  - 5. ~~The Positive Institution~~
  - 6. ~~The Positive Society (Add)~~
- b. Research related to work-place satisfaction
- e. ~~Positive psychology in schools (Delete)~~
- d. Evaluate how positive environments contribute to personal and collective well-being
- e. Developing strategies to foster positive environments and enhance community engagement

## Positive Psychotherapy

- a. Research findings and positive psychotherapy (Seligman & Lyubomirsky)
- b. Therapies based on positive psychology (PPT) 3.00
- c. Applications relating to smoking cessation, schizophrenia and bipolar disorder

## Future of Positive Psychology

- a. Discuss current trends and future directions in positive psychology
- b. Critique of the field's growth and areas for further inquiry and development; for example the neurobiology of pleasure
- c. Explore the applications of positive psychology principles to emerging global challenges 3.00

## Integrating positive psychology with psychology

**Total Hours: 51.00**

## Methods of Instruction

---

- A. Class Activities
- B. Group Discussions
- C. Homework: Students are required to complete two hours of outside-of-class homework for each hour of lecture
- D. Lecture
- E. Problem-Solving Sessions
- F. Reading Assignments

## Methods of Evaluation

---

- A. Exams/Tests
- B. Homework
- ~~C. Journal (Delete)~~
- D. Final Examination
- E. Written Assignments
- F. Written Examinations

# Examples of Assignments

---

## Reading Assignments

1. Read the chapter *Positive Psychology* and select one of the 9 major perspectives or themes. Take and submit notes on the perspective you chose (1-2 pages). You will use your notes to explain this perspective to a classmate during our next class.
2. Read the chapter on *Resilience* in childhood and adulthood, write out a one-paragraph summary of each of the following questions covered in the chapter. Bring your summary to next class.
  - What variables influence our ability to bounce back from setbacks?
  - 3 ways that trauma influences the brain
  - Research on growing resilience

## Writing Assignments

- ~~1. Submit a summary of at least 10 weekly journal entries (500 words) on your Habit Change Assignment. (Delete)~~
- ~~2. Provide 250-500 word descriptions and examples of experiences related to: personal growth, well-being, happiness, flow, resilience during the week. (Delete)~~
3. Write a 3-page research paper on a student-selected in-depth topic in Positive Psychology that has been discussed in class. (Add)
4. Submit a 5-page paper on how you would Create a Positive Institution: Design a hypothetical positive Institution. Your institution can be a classroom, workplace, a religious group, etc. Describe the specific components and procedures you would include in your institution, and explain how each contributes to the overall positivity of the institution. (Add)

## Out-of-Class Assignments

1. Read Gottman's article, "How We Connect Emotionally". Be prepared to discuss concrete examples of psychological perspectives and underlying personal growth and Psychosocial adjustment in intimate relationships. ~~Then select one of the ideas that you would like to apply to your relationships and write a brief 3-page essay on research-based strategies that you might apply. (Delete)~~
2. In 1-2 pages, analyze how each of the four main categories of Emotional Intelligence influence workplace productivity.

## Recommended Materials of Instruction

---

Martin Seligman. (2004). *Authentic Happiness. Atria, Reprint Edition*. 978-0743222983.

Ilona Boniwell. (2012). *Positive Psychology in a Nutshell: The Science of Happiness. Open University, 3rd*. 978-0335247202.

William Compton & Edward Hoffman. (2024). *Positive Psychology. Sage, 4th*. 9781071931073.

Christopher Peterson. (2005). *A Primer in Positive Psychology. Oxford Press, 1st*. 978-0195188332.

*Positive Psychology in a Nutshell: The Science of Happiness. Software. 3rd*. Open University

## Minimum Qualifications

---

Psychology (Masters Required)

---

**Created/Revised by:** Hovsepian, Vahan

**Date:**03/12/2025

# AS Degree in Computer Engineering

## About the Program

**Program Goal:** Local

**GE Pattern(s):** Butte Local, Cal-GETC

**Program Code:** 44134.00AS

This degree program is designed to cover the majority of the first two years of a four-year program leading to the Bachelor's Degree in Computer Engineering at CSU, Chico. Major requirements can vary by university and catalog year. Students should consult with a counselor and utilize Assist.org to ensure this is the most efficient pathway for their academic and career goals. While the Bachelor's Degree is usually the minimum needed to practice as a junior engineer, the Associate in Science Degree in Computer Engineering will permit an individual to find work in most engineering firms as an engineering aide or assistant. The curriculum includes core math and science courses as well as required lower-division courses in Computer Engineering.

### Program Learning Outcome(s):

Upon successful completion of the program, the student will be able to:

1. Use the tools of Mathematics and Physics to solve engineering problems.
2. Use engineering judgment in the solution of engineering problems by breaking problems down, solving each part, checking solution components, and reassembling the problem for a final solution.
3. Safely use and accurately interpret the output of standard measuring devices used in circuit design and testing.
4. Use general methods of problem solving typical in developing computer hardware and software.
5. Write and analyze computer programs.

### Required courses:

CHEM 1	General Chemistry I	49.00
CSCI 20	Programming and Algorithms I	5.00
CSCI 21	Programming and Algorithms II	3.00
CSCI 22	Discrete Structures	3.00
ENGR 1	Introduction to Engineering	3.00
ENGR 10	Digital Logic Fundamentals	3.00
ENGR 11	Embedded Systems Development	4.00
ENGR 17	Electrical Circuits and Devices	3.00
MATH C2220	Calculus II Early Transcendentals	4.00
MATH 40	Differential Equations	4.00
PHYS 41	Physics for Scientists and Engineers I	4.00
PHYS 42	Physics for Scientists and Engineers II	4.00
<b>Select one:</b>		5.00
MATH C2210	Calculus I Early Transcendentals	5.00
MATH C2210E	Calculus I Early Transcendentals with Embedded Support	5.00

Total: 49.00

## Suggested Program Map (Butte GE)

### Required courses:

**Units: 66.00-68.00**

<b>Term 1</b>		17.00
CHEM 1	General Chemistry I	5.00
Prerequisite: CHEM 11 or CHEM 51 or one year of high school Chemistry; and Intermediate Algebra or equivalent. Meets Area 5A/5C		
ENGR 1	Introduction to Engineering	3.00
ENGR 10	Digital Logic Fundamentals	4.00
<b>Select one: Meets Area 2</b>		
MATH 30	Analytic Geometry and Calculus I	5.00
Prerequisite: MATH 20 and MATH 26 or MATH 20 and MATH 26s, MATH 28 or MATH 28s, or college-level Pre-calculus or equivalent		
MATH 30s	Analytic Geometry and Calculus I with Support	5.00
Prerequisite: MATH 20 and MATH 26 or MATH 20 and MATH 26s, MATH 28 or MATH 28s, or college-level Pre-calculus or equivalent		
<b>Term 2</b>		17.00-19.00
CSCI 20	Programming and Algorithms I	3.00
MATH 31	Analytic Geometry and Calculus II	4.00
Meets Area 2.		
PHYS 41	Physics for Scientists and Engineers I	4.00

Meets Area 5A/5C.

Area 1A Choice (See GE Guide) 3.00-4.00

Area 3 Choice (See GE Guide) 3.00-4.00

*Term 3*

CSCI 21 Programming and Algorithms II 3.00

MATH 40 Differential Equations 4.00

Meets Area 2.

PHYS 42 Physics for Scientists and Engineers II 4.00

Meets Area 5A/5C.

Area 1B/C Choice (See GE Guide) 3.00

Area 4 Choice (See GE Guide) 3.00

*Term 4*

CSCI 22 Discrete Structures 3.00

Prerequisite: CSCI 20 and MATH 13 or MATH 13s or MATH 26 or MATH 26s or MATH 28 or MATH 28s

ENGR 11 Embedded Systems Development 3.00

Prerequisite: CSCI 20

ENGR 17 Electrical Circuits and Devices 4.00

Area 6 Choice (See GE Guide) 3.00

Graduation Requirement Choice (See GE Guide) 2.00

Total: 66.00-68.00

# AS Degree in Computer Information Systems

## About the Program

**Program Goal:** Local

**GE Pattern(s):** Butte Local, Cal-GETC

**Program Code:** 36241.01AS

This program partially reflects requirements for the Bachelor of Science in Computer Information Systems at CSU, Chico. This program meets the lower division major preparation for a similar major at CSU, Chico. Students planning to transfer should contact a counselor for more information on program and transfer requirements.

Computer Information Systems (CIS) as a field focuses on practical applications of technology to support organizations. The program includes a range of subjects, including end-user Information Technology (IT) systems, IT systems analysis and design, software development, and mathematics. Potential careers for CIS graduates include IT consultant, programmer/analyst, application developer, Quality Assurance Specialist, IT support specialist, IT project manager, and many other roles in the IT industry.

### Program Learning Outcome(s):

Upon successful completion of the program, the student will be able to:

1. Define terminology, concepts, and functions of end-user Information Technology (IT) systems.
2. Explain how fundamental principles of economics and accounting systems are used to inform business decisions and satisfy the needs of specific businesses and users.
3. Articulate the types of business needs that can be addressed using information technology-based solutions.
4. Articulate business requirements for a technology solution, specify alternative approaches to acquiring the technology capabilities needed to address the business requirements, and specify the requirements for an information systems solution.
5. Design and implement computer algorithms and applications using basic computation, input and output, control structures, and a variety of data structures in an object-oriented programming language
6. Describe how formal tools of symbolic logic are used to model real-life situations, including those arising in computing contexts such as program correctness, database queries, and algorithms.

### Required courses:

		<b>35.00 – 36.00</b>
CSCI 20	Programming and Algorithms I	3.00
CSCI 21	Programming and Algorithms II	3.00
CSCI 22	Discrete Structures	3.00
<del>CSCI 23</del>	<del>Systems Analysis and Design</del>	<del>3.00</del>
CSCI 49	PCs and Peripherals/A+	4.00
ECON C2001	Principles of Microeconomics	3.00
ACCT 2	Financial Accounting	4.00
ACCT 4	Managerial Accounting	4.00
BUS 8	Introduction to Business Law	3.00
<b>Select one:</b>		<b>4.00-5.00</b>
MATH 13	Survey of Calculus	4.00
MATH 13s	Survey of Calculus with Support	4.00
MATH C2210	Calculus I Early Transcendentals	5.00
MATH C2210E	Calculus I Early Transcendentals with Embedded Support	5.00
<b>Select one:</b>		<b>4.00</b>
STAT C1000	Introduction to Statistics	4.00
STAT C1000E	Introduction to Statistics	4.00

**Total: 35.00 – 36.00**

## Suggested Program Map (Butte GE)

### Required courses:

**Units: 60.00-65.00**

#### Term 1

**13.00-14.00**

#### Select one:

CSCI 20	Programming and Algorithms I	3.00
<del>CSCI 23</del>	<del>Systems Analysis and Design</del>	<del>3.00</del>
ACCT 2	Financial Accounting	4.00
<b>Select one: Meets Area 2</b>		<b>4.00</b>
STAT C1000	Introduction to Statistics	4.00
STAT C1000E	Introduction to Statistics	4.00

Area 1A Choice (See GE Guide)

3.00-4.00

Graduation Requirement Choice (See GE Guide)

2.00

#### Term 2

**18.00-19.00**

CSCI 21	Programming and Algorithms II	3.00
---------	-------------------------------	------



# AS Degree in Electrical Engineering

## About the Program

**Program Goal:** Local

**GE Pattern(s):** Butte Local, Cal-GETC

**Program Code:** 44135.00AS

This degree program is designed to cover the majority of the first two years of a four-year program leading to the Bachelor's Degree in Electrical Engineering at CSU, Chico. Major requirements can vary by university and catalog year. Students should consult with a counselor and utilize Assist.org to ensure this is the most efficient pathway for their academic and career goals. While the Bachelor's Degree is usually the minimum needed to practice as a junior engineer, the Associate in Science Degree in Electrical Engineering will permit an individual to find work in most engineering firms as an engineering aide or assistant. The curriculum includes core math and science courses as well as required lower-division courses in Electrical Engineering.

### Program Learning Outcome(s):

Upon successful completion of the program, the student will be able to:

1. Use the tools of Mathematics and Physics to solve engineering problems.
2. Develop engineering judgment in the solution of electrical engineering problems by breaking problems down, solving each part, checking each solution and reassembling the problem for a final solution.
3. Safely use and accurately interpret the output of standard measuring devices used in electrical engineering fields
4. Solve problems using data gathered from circuits and circuit simulators.
5. Write comprehensive reports to communicate the analysis of various electrical systems.

### Required courses:

CHEM 1	General Chemistry I	47.00
CSCI 20	Programming and Algorithms I	5.00
ENGR 1	Introduction to Engineering	3.00
ENGR 10	Digital Logic Fundamentals	3.00
ENGR 11	Embedded Systems Development	4.00
ENGR 17	Electrical Circuits and Devices	3.00
MATH C2220	Calculus II Early Transcendentals	4.00
MATH 32	Analytic Geometry and Calculus III	4.00
MATH 40	Differential Equations	4.00
PHYS 41	Physics for Scientists and Engineers I	4.00
PHYS 42	Physics for Scientists and Engineers II	4.00
<b>Select one:</b>		<b>5.00</b>
MATH C2210	Calculus I Early Transcendentals	5.00
MATH C2210E	Calculus I Early Transcendentals with Embedded Support	5.00

Total: 47.00

## Suggested Program Map (Butte GE)

### Required Courses:

**Units: 64.00-65.00**

#### Term 1

CHEM 1	General Chemistry I	17.00
Prerequisite: CHEM 11 or CHEM 51 or one year of high school Chemistry; and Intermediate Algebra or equivalent. Meets Area 5.		5.00

ENGR 1	Introduction to Engineering	3.00
ENGR 10	Digital Logic Fundamentals	4.00

#### Select one: Meets Area 2

MATH 30	Analytic Geometry and Calculus I	5.00
Prerequisite: MATH 20 and MATH 26 or MATH 20 and MATH 26s, MATH 28 or MATH 28s, or college-level Pre-calculus or equivalent.		

MATH 30s	Analytic Geometry and Calculus I with Support	5.00
Prerequisite: MATH 20 and MATH 26 or MATH 20 and MATH 26s, MATH 28 or MATH 28s, or college-level Pre-calculus or equivalent		

#### Term 2

CSCI 20	Programming and Algorithms I	17.00-18.00
MATH 31	Analytic Geometry and Calculus II	3.00
Meets Area 2.		4.00

PHYS 41	Physics for Scientists and Engineers I	4.00
Meets Area 5A/5C		
Area 1A Choice (See GE Guide)		3.00-4.00
Area 3 Choice (See GE Guide)		3.00
<i>Term 3</i>		17.00
Area 1B/C Choice (See GE Guide)		3.00
Area 4 Choice (See GE Guide)		3.00
Area 6 Choice (See GE Guide)		3.00
MATH 40	Differential Equations	4.00
Meets Area 2.		
PHYS 42	Physics for Scientists and Engineers II	4.00
Meets Area 5A/5C.		
<i>Term 4</i>		13.00
MATH 32	Analytic Geometry and Calculus III	4.00
Meets Area 2.		
ENGR 11	Embedded Systems Development	3.00
Prerequisite: CSCI 20		
ENGR 17	Electrical Circuits and Devices	4.00
Graduation Requirement Choice (See GE Guide)		2.00
		Total: 64.00-65.00

# AS Degree in Mechatronic Engineering

## About the Program

**Program Goal:** Transfer

**GE Pattern(s):** Butte Local, Cal-GETC

**Program Code:** 44133.00AS

This degree program is designed to cover the majority of the first two years of a four-year program leading to the Bachelor's Degree in Mechatronic Engineering at CSU, Chico. Major requirements can vary by university and catalog year. Students should consult with a counselor and utilize Assist.org to ensure this is the most efficient pathway for their academic and career goals. While the Bachelor's Degree is usually the minimum needed to practice as a junior engineer, the Associate in Science Degree in Mechatronic Engineering will permit an individual to find work in most engineering firms as an engineering aide or assistant. The curriculum includes core math and science courses as well as required lower-division courses in Mechatronic Engineering. This degree also captures much of the requirements of both Mechanical Engineering and Electrical Engineering pathways.

### Program Learning Outcome(s):

Upon successful completion of the program, the student will be able to:

1. Demonstrate an ability to develop judgment in the solution of engineering problems by breaking problems down, solving each part, checking each solution and reassembling the problem for a final solution.
2. Use the tools of Mathematics and Physics to solve engineering problems.
3. Safely use and accurately interpret the output of standard measuring devices used in the mechatronic field.
4. Demonstrate the ability to work cohesively in the team environment to solve engineering problems.
5. Communicate the analysis of various materials, systems and solutions verbally and in industry-standard written form.

### Required courses:

CHEM 1	General Chemistry I	60.00
CSCI 20	Programming and Algorithms I	5.00
DFT 2	Engineering Graphics I	3.00
DFT 8	Engineering Graphics II	3.00
ENGR 1	Introduction to Engineering	3.00
ENGR 8	Statics	3.00
ENGR 10	Digital Logic Fundamentals	4.00
ENGR 11	Embedded Systems Development	3.00
ENGR 17	Electrical Circuits and Devices	4.00
ENGR 45	Materials Science	4.00
MATH C2220	Calculus II Early Transcendentals	4.00
<del>MATH 32</del>	<del>Analytic Geometry and Calculus-III</del>	<del>4.00</del>
MATH 40	Differential Equations	4.00
PHYS 41	Physics for Scientists and Engineers I	4.00
PHYS 42	Physics for Scientists and Engineers II	4.00
PHYS 43	Physics for Scientists and Engineers III	4.00
<b>Select one:</b>		5.00
MATH C2210	Calculus I Early Transcendentals	5.00
MATH C2210E	Calculus I Early Transcendentals with Embedded Support	5.00

Total: 60.00

## Suggested Program Map (Butte GE)

### Required courses:

Units: 77.00-79.00

#### Term 1

CHEM 1                      General Chemistry I                      17.00  
Prerequisite: CHEM 11 or CHEM 51 or one year of high school Chemistry; and Intermediate Algebra or equivalent. Meets Area 5A/5C                      5.00

ENGR 1                      Introduction to Engineering                      3.00  
ENGR 10                      Digital Logic Fundamentals                      4.00

#### Select one: Meets Area 2

MATH 30                      Analytic Geometry and Calculus I                      5.00  
Prerequisite: MATH 20 and MATH 26 or MATH 20 and MATH 26s, MATH 28 or MATH 28s, or college-level Pre-calculus or equivalent.

MATH 30s                      Analytic Geometry and Calculus I with Support                      5.00  
Prerequisite: MATH 20 and MATH 26 or MATH 20 and MATH 26s, MATH 28 or MATH 28s, or college-level Pre-calculus or equivalent

#### Term 2

17.00-18.00

DFT 2	Engineering Graphics I	3.00
MATH 31	Analytic Geometry and Calculus II	4.00
Meets Area 2.		
PHYS 41	Physics for Scientists and Engineers I	4.00
Meets Area 5A/5C.		
Area 1A Choice (See GE Guide)		3.00-4.00
Area 4 Choice (See GE Guide)		3.00
<i>Term 3</i>		17.00-18.00
DFT 8	Engineering Graphics II	3.00
ENGR 8	Statics	3.00
MATH 40	Differential Equations	4.00
Meets Area 2.		
PHYS 42	Physics for Scientists and Engineers II	4.00
Meets Area 5A/5C.		
Area 3 Choice (See GE Guide)		3.00-4.00
<i>Term 4</i>		18.00
CSCI 20	Programming and Algorithms I	3.00
ENGR 11	Embedded Systems Development	3.00
Prerequisite: CSCI 20		
ENGR 17	Electrical Circuits and Devices	4.00
ENGR 45	Materials Science	4.00
<del>MATH 32</del>	<del>Analytic Geometry and Calculus III</del>	<del>4.00</del>
<del>Meets Area 2.</del>		
PHYS 43	Physics for Scientists and Engineers III	4.00
Meets Area 5A/5C.		
<i>Term 5</i>		8.00
Area 1B/C Choice (See GE Guide)		3.00
Area 6 Choice (See GE Guide)		3.00
Graduation Requirement Choice (See GE Guide)		2.00
		Total: 77.00-79.00

# Certificate of Achievement in Computer Engineering

## About the Program

**Program Goal:** Local

**GE Pattern(s):** None

**Program Code:** 44138.00CA

(Not Eligible for Financial Aid) The Certificate of Achievement in Computer Engineering is designed to meet the core lower division requirements for Computer Engineering. Completion of the Certificate of Achievement includes the discipline specific courses required to transfer to a four year university in engineering. The specific field requirements do vary depending on the four-year institution to which the student will transfer. Thus, requirements for specific universities should be checked before selecting specific field courses.

### Program Learning Outcome(s):

Upon successful completion of the program, the student will be able to:

1. Safely use and accurately interpret the output of standard measuring devices.
2. Use the tools of Mathematics and Physics to solve engineering problems.
3. Demonstrate knowledge of the general methods of problem-solving using data gathered in the field.
4. Demonstrate an ability to develop engineering judgment in the solution of engineering problems by breaking problems down, solving each part, checking each solution, and reassembling the problem for a final solution.
5. Demonstrate the ability to write comprehensive reports to communicate the analysis of various materials.

### Required courses:

CSCI 20	Programming and Algorithms I	3.00
CSCI 21	Programming and Algorithms II	3.00
CSCI 22	Discrete Structures	3.00
ENGR 10	Digital Logic Fundamentals	4.00
ENGR 11	Embedded Systems Development	3.00
ENGR 17	Electrical Circuits and Devices	4.00
		<b>Total: 20.00</b>

## Suggested Program Map

### Required courses:

		<b>Units: 20.00</b>
<b>Term 1</b>		4.00
ENGR 10	Digital Logic Fundamentals	4.00
<b>Term 2</b>		3.00
CSCI 20	Programming and Algorithms I	3.00
<b>Term 3</b>		3.00
CSCI 21	Programming and Algorithms II	3.00
<b>Term 4</b>		10.00
CSCI 22	Discrete Structures	3.00
Prerequisite: CSCI 20 and MATH 13 or MATH 13s or MATH 26 or MATH 26s or MATH 28 or MATH 28s		
ENGR 11	Embedded Systems Development	3.00
Prerequisite: CSCI 20		
ENGR 17	Electrical Circuits and Devices	4.00
Prerequisite: PHYS 42, MATH 40 (or concurrent enrollment)		
		<b>Total: 20.00</b>

# Certificate of Achievement in Mechatronic Engineering

## About the Program

**Program Goal:** Local

**GE Pattern(s):** None

**Program Code:** 44141.00CA

(Not Eligible for Financial Aid) The Certificate of Achievement in Mechatronic Engineering is designed to cover the core mechatronic engineering courses needed to transfer to a four-year program leading to the Bachelor's Degree in Mechatronic Engineering at most four-year colleges and universities. The curriculum includes lower division courses in Mechatronic Engineering. Major requirements can vary by university and catalog year. Students should consult with a counselor and utilize Assist.org to ensure this is the most efficient pathway for their academic and career goals.

### Program Learning Outcome(s):

Upon successful completion of the program, the student will be able to:

1. Use the tools of Mathematics and Physics to solve engineering problems.
2. Demonstrate an ability to develop judgment in the solution of engineering problems by breaking problems down, solving each part, checking each solution and reassembling the problem for a final solution.
3. Safely use and accurately interpret the output of standard measuring devices used in the mechatronic field.
4. Demonstrate the ability to work cohesively in the team environment to solve engineering problems.
5. Communicate the analysis of various materials, systems and solutions verbally and in industry-standard written form.

### Required courses:

CSCI 20	Programming and Algorithms I	31.00
DFT 2	Engineering Graphics I	3.00
DFT 8	Engineering Graphics II	3.00
ENGR 8	Statics	3.00
ENGR 10	Digital Logic Fundamentals	4.00
ENGR 11	Embedded Systems Development	3.00
ENGR 17	Electrical Circuits and Devices	4.00
ENGR 45	Materials Science	4.00
MATH 32	Analytic Geometry and Calculus III	4.00
PHYS 43	Physics for Scientists and Engineers III	4.00

Total: 31.00

## Suggested Program Map

### Required Courses:

**Units: 31.00**

#### Term 1

ENGR 10                      Digital Logic Fundamentals                      4.00

#### Term 2

DFT 2                              Engineering Graphics I                              3.00

#### Term 3

ENGR 8                              Statics                              3.00

Prerequisite: MATH 31, PHYS 41

DFT 8                              Engineering Graphics II                              3.00

#### Term 4

CSCI 20                              Programming and Algorithms I                              3.00

ENGR 11                              Embedded Systems Development                              3.00

Prerequisite: CSCI 20

ENGR 17                              Electrical Circuits and Devices                              4.00

Prerequisite: PHYS 42, MATH 40 (or concurrent enrollment)

ENGR 45                              Materials Science                              4.00

Prerequisite: CHEM 11 or CHEM 51 or one year of high school Chemistry; and Intermediate Algebra or equivalent

~~MATH 32                              Analytic Geometry and Calculus III                              4.00~~

~~Prerequisite: MATH 31~~

PHYS 43                              Physics for Scientists and Engineers III                              4.00

Prerequisite: PHYS 41, MATH 31

Total: 31.00