

Area A3: Critical Thinking

Students will be able to:

- Identify and apply the elements of sound logical reasoning to compose and critique deductive and inductive arguments.
- Identify and critique fallacies, biases, and errors in reasoning.
- Identify and evaluate the use of facts and opinions as evidence in the construction of arguments.
- Identify and evaluate methods and reasoning appropriate to the discipline associated with the course.

Area B-1: Physical Science

Drawing upon one or more of the physical sciences, students will be able to:

- Explain and apply core ideas and models concerning physical systems and mechanisms, citing critical observations, underlying assumptions and limitations.
- Describe how scientists create explanations of natural phenomena based on the systematic collection of empirical evidence subjected to rigorous testing and/or experimentation.
- Access and evaluate scientific information, including interpreting tables, graphs and equations.
- Recognize evidence-based conclusions and form reasoned opinions about science-related matters of personal, public and ethical concern.

Area B-2: Life Forms

Drawing upon one or more of the life sciences, students will be able to:

- Explain and apply core ideas and models concerning living systems and life forms, citing critical observations, underlying assumptions and limitations.
- Describe how scientists create explanations of natural phenomena based on the systematic collection of empirical evidence subjected to rigorous testing and/or experimentation.
- Access and evaluate scientific information, including interpreting tables, graphs and equations.
- Recognize evidence-based conclusions and form reasoned opinions about science-related matters of personal, public and ethical concern.

Area B-3: Laboratory Component

- Students will be able to use their senses and scientific instruments to gather, organize, and display empirical data.
- Students will be able to identify patterns in data and use these to hypothesize underlying relationships.
- Students will be able to explain and apply scientific techniques for coping with complexity and variability in the natural world.

Area B-5: Further Studies

Students will be able to do one or more of the following:

- Cite critical observations, underlying assumptions and limitations to explain and apply important ideas and models in one or more of the following: physical science, life science, mathematics or computer science.
- Recognize evidence-based conclusions and form reasoned opinions about science-related matters of personal, public and ethical concern.
- Discuss historical or philosophical perspectives pertaining to the practice of science or mathematics.

Area B: The Physical Universe and its Life Forms: Scientific and Mathematical Literacy

Scientifically and mathematically literate individuals understand the characteristic features of science and mathematics as forms of human knowledge and inquiry, and they are aware of how science and mathematics shape their material, intellectual, and cultural environments¹. Scientifically and mathematically literate individuals are willing to engage in science- and math-related issues and ideas as reflective citizens and they are able to draw evidence-based conclusions and make reasoned decisions concerning science- and math-related issues in real-life contexts.

Scientific and mathematical literacy includes both an individual's knowledge of scientific and mathematical concepts and principles as well as the use of that knowledge to acquire new knowledge, to identify questions, and to explain scientific and mathematical phenomena. Achieving scientific and mathematical literacy is a life-long process that requires the development of skills, confidence and the desire to apply what has been learned to new areas and issues as they arise in the individual's life.

¹The definition of scientific literacy is based on: PISA 2003 Assessment Framework - Mathematics, Reading, Science and Problem Solving Knowledge and Skills (Organization for Economic Co-operation and Development).

Area B-1: Physical Science

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- Access and evaluate scientific information, including interpreting tables, graphs and equations.
- Recognize evidence-based conclusions and form reasoned opinions about science-related matters of personal, public and ethical concern.

Area B-2: Life Forms

Drawing upon one or more of the life sciences, students will be able to:

- Explain and apply core ideas and models concerning living systems and life forms, citing critical observations, underlying assumptions and limitations.

- Describe how scientists create explanations of natural phenomena based on the systematic collection of empirical evidence subjected to rigorous testing and/or experimentation.
- Access and evaluate scientific information, including interpreting tables, graphs and equations.
- Recognize evidence-based conclusions and form reasoned opinions about science-related matters of personal, public and ethical concern.

Area B-3: Laboratory Component

- Students will be able to use their senses and scientific instruments to gather, organize, and display empirical data.
- Students will be able to identify patterns in data and use these to hypothesize underlying relationships.
- Students will be able to explain and apply scientific techniques for coping with complexity and variability in the natural world.

Area B-4: Mathematical Concepts and Quantitative Reasoning

- Students will be able to solve problems by thinking logically, making conjectures, and constructing valid mathematical arguments.
- Students will be able to make valid inferences from numerical, graphical and symbolic information.
- Students will be able to apply mathematical reasoning to both abstract and applied problems, and to both scientific and non-scientific problems.

Area B-5: Further Studies

Students will be able to do one or more of the following:

- Cite critical observations, underlying assumptions and limitations to explain and apply important ideas and models in one or more of the following: physical science, life science, mathematics or computer science.
- Recognize evidence-based conclusions and form reasoned opinions about science-related matters of personal, public and ethical concern.
- Discuss historical or philosophical perspectives pertaining to the practice of science or mathematics.

Area C2 Learning Outcomes

C2 Humanities: Literature, Philosophy, Languages Other than English

The learning objectives associated with C2 should focus on the human condition. Specifically, students completing C2 requirements should be able to:

- A. Demonstrate knowledge of the conventions and methods of the study of the humanities.
- B. Investigate, describe, and analyze the roles and effects of human culture and understanding in the development of human societies.
- C. Compare and analyze various conceptions of humankind.
- D. Demonstrate knowledge and understanding of the historical development of cultures and civilizations, including their animating ideas and values.

Area D Learning Outcomes

1. Describe and evaluate ethical and social values in their historical and cultural contexts.
2. Explain and apply the principles and methods of academic disciplines to the study of social and individual behavior.
3. Demonstrate an understanding of the role of human diversity in human society, for example, race, ethnicity, class, age, ability/disability, sexual identity, gender and gender expression.
4. Explain and critically examine social dynamics and issues in their historical and cultural contexts.

Area E Learning Goals & Outcomes

Area E – Understanding Personal Development

Learning Goals

1. Students will demonstrate an understanding of academic content knowledge regarding self-development as a physiological, social and/or psychological being.
2. Students will critically examine prior or current experiences or behaviors from their own lives in response to real world physiological, social and/or psychological contexts (may be evident in self-assessment, reflection or creative work).
3. Students will apply skills and knowledge regarding development of the self to differing situations, such as real world challenges, and/or to make connections across perspectives.

Learning Outcomes

1. Students will be able to identify their own perspective and make connections/comparisons across perspectives.
2. Students will be able to plan, monitor, and assess their own learning.
3. Students will be able to set personal and/or professional goals.

Area F Learning Outcomes

Ethnic Studies is an interdisciplinary and comparative study of race and ethnicity with special focus on four historically defined racialized core groups: Native Americans, African Americans, Asian Americans, and Chicanxs/Latinxs.

Courses that are approved to meet this requirement shall meet at least 3 of the 5 following core competencies.

Students will be able to (at least three of the following):

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, Pan African Studies, Asian American Studies, and Chicanx/Latinx Studies.
2. Apply theory and knowledge produced by Native American, Pan African, Asian American, and/or Chicanx/Latinx communities to describe the critical events, histories, cultures, 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 Native American, Pan African, Asian American, and/or Chicanx/Latinx communities.
4. Critically review how struggle, resistance, racial and social justice, solidarity, and liberation, as experienced and enacted by Native American, Pan African, Asian American and/or Chicanx/Latinx communities are relevant to current and structural issues such as communal, national, international, and transnational politics as, for example, in immigration, reparations, settler-colonialism, multiculturalism, language policies.
5. Describe and actively engage with anti-racist and anti-colonial issues and the practices and movements in Native American, Pan African, Asian American and/or Chicanx/Latinx communities and a just and equitable society.