GEN ED

Implementation Committee

Final Recommendation

TECH TOMORROW

Executive Summary

During the 2023-24 academic year, the Gen Ed Vision Committee gathered information from students and faculty – through 27 town halls and a university-wide survey with more than 1,200 responses – to discern the vision for Tennessee Tech's general education program. The Vision Committee prepared a series of recommendations to guide the Gen Ed Implementation Committee as it examines and plans for the implementation of a new general education program.

Goals

The goals for the Gen Ed Implementation Committee are to work closely with the members of the university's existing General Education Committee to:

- Review the Vision Committee's recommendations, and
- Involve campus stakeholders to develop a detailed implementation plan for those recommendations.

Committees

Holly Anthony, faculty lead for the Innovation in All We Do goal of the Tech Tomorrow strategic plan, and Linda Null, professor of English and chair of the General Education Committee, will co-chair the Gen Ed Implementation Committee.

A complete listing of all committee members and subcommittee assignments is located at the end of this recommendation.

Additional working documents from the Gen Ed Implementation Committee used in the development of this final recommendation are available at **https://www.tntech.edu/strategic/gen-ed-implementation.php**.

Some Noteworthy Items

- Maintains 41 hours of Gen Ed, so we meet SACSCOC requirement of minimum of 30 hours
- Meets SACSCOC requirement of "at least one course from each of the following areas":
  - Humanities/Fine Arts
  - Social/Behavioral Sciences
  - Natural Sciences/Mathematics
  - Each of these areas has a minimum of two courses (and 6 hours) which exceeds SACSCOC minimum
- Total Gen Ed hours (41) does not change so no "new hours" must be carved out for General Education.

Recommended General Education Program

Current Gen Ed Category	Proposed Category Name	Current Hours	Proposed Hours
Mathematics	Quantitative Reasoning and Analysis	3	3
Humanities & Fine Arts	Humanities & Cultural Expression	9 – 3 hours literature required	6 to 9*,†
History	Historical Foundations	6	3 to 6
Social & Behavioral Sciences	Social & Behavioral Sciences	6	6
Communication	Communication	9 – 6 hours composition – 3 hours oral communication	9 – 6 hours composition – 3 hours oral communication
Natural Sciences	Scientific Reasoning	8	4 to 8
	Financial & Digital Literacy	0	3 to 4
TOTAL Gen Ed		**41**	**41** **– 34 designated within Gen Ed** **– 7 flexible within Gen Ed**

* Removed the literature requirement in the Humanities/Cultural Expression Category (literature courses will still populate the category)

† Adding statement to Humanities & Cultural Expression Category (to ensure SACS compliance): "Only 3 credit hours of introductory foreign language may be applied as part of the fulfillment of the category requirement."

Current General Education Requirements: https://undergrad.catalog.tntech.edu/ugrequirements/gened

Despite allotment of "3 to 4 hours" for digital literacy category, it is expected that this category will need to be populated with courses that are 1 hour, 2 hours, or 3 hours to allow flexible options in Program of Study (depending on choices made by specific majors).

Tennessee Tech will need to obtain delegated authority from the Board of Trustees to exempt students from the Tenn. Code Ann. § 49-7-110 requirement (six hours of American History) if they have successfully completed an American History course in high school, as many other Tennessee universities have done.

Quantitative Reasoning and Analysis

Student Learning Outcomes

All courses in this category must meet 3 of the 5 student learning outcomes listed below.

Students will:

- Develop persistence in problem solving and skills in mathematics, computational reasoning, and/or statistical analysis.
- Use mathematical abstraction, computation, and/or logic to solve problems, check answers for reasonableness, and communicate reasoning and results.
- Interpret mathematical models or quantitative data from formulas, graphs, and/or tables and draw inferences from that information.
- Develop an informed skepticism about claims, an ability to judge the validity of arguments, and an understanding of the difference between correlation and causation.
- Understand statistical inference and demonstrate fundamental knowledge of methods for evaluating claims based on data.

Humanities and Cultural Expression

Student Learning Outcomes

We are removing the current requirement that students must take one literature course in this category.

We are adding the following statement: "Only 3 credit hours of introductory foreign language may be applied as part of the fulfillment of the category requirement."

All courses in this category must meet 4 of the 6 student learning outcomes listed below.

Students will:

- Interpret forms of cultural expression within multiple historical, intellectual, and cultural contexts.
- Learn how cultural expression contributes to the development of self and society.
- Explore global/cultural/and-or linguistic variety and the diverse perspectives it represents.
- Apply critical and analytical methodologies of the Humanities and/or Fine Arts to interpret texts, media, and cultural artifacts.
- Frame a comparative context through which they can critically assess the ideas, forces, and values that have created the modern world.
- Communicate in more than one language.

Historical Foundations

Student Learning Outcomes

All courses in this category must meet 4 of the 5 student learning outcomes listed below.

Students will:

- Analyze historical facts and interpretations.
- Analyze and compare political, geographic, economic, social, cultural, religious, and intellectual institutions, structures, and processes across a range of historical periods and cultures.
- Recognize and articulate the diversity of human experience across a range of historical periods and the complexities of a global culture and society.
- Draw on historical perspective to evaluate contemporary problems/issues.
- Analyze the contributions of past cultures/societies to the contemporary world.

Social and Behavioral Sciences

Student Learning Outcomes

All courses in this category must meet 4 of the 8 student learning outcomes listed below.

Students will:

- Recognize, describe, and explain social institutions, structures, and processes and the complexities of a global culture and diverse society.
- Think critically about how individuals are influenced by political, geographic, economic, cultural, and family institutions in their own and other diverse cultures and explain how one's own belief system may differ from others.
- Explore the relationship between the individual and society as it affects the personal behavior, social development, and quality of life of the individual, the family and the community.
- Examine the impact of behavioral and social scientific research on major contemporary issues and their disciplines' effects on individuals and society.
- Using the most appropriate principles, methods, and technologies, perceptively and objectively gather, analyze, and present social and behavioral science research data, draw logical conclusions, and apply those conclusions to one's life and society.
- Take ethical stands based on appropriate research in the social and behavioral sciences.
- Analyze and communicate the values and processes that are used to formulate theories regarding the social context of individual human behavior in the social and behavioral sciences.
- Demonstrate an understanding of the importance of civil discourse and participating as well-informed citizens in a diverse and global society.

Communication

Student Learning Outcomes

All courses in this category must meet all 4 student learning outcomes listed below.

Students will:

- Construct focused, well-reasoned arguments that reflect an awareness of situations, perspectives, purposes, and audiences.
- Use traditional and digital strategies to demonstrate effective communication skills (written, oral, visual) in relation to specific rhetorical tasks.
- Demonstrate the understanding that writing and/or speaking processes include planning, organizing, composing, revising, editing, and sharing through traditional and digital communication (written, oral, visual).
- Synthesize theoretical and practical knowledge to think critically, solve problems, make distinctions, make decisions, and communicate effectively with audiences.

Scientific Reasoning

Student Learning Outcomes

All courses in this category must meet all 5 of the student learning outcomes listed below.

Students will:

- Formulate an evidence-based and testable scientific hypothesis about a natural phenomenon or system, conduct a controlled experimental investigation to address a scientific hypothesis, collect and analyze data, and interpret the results in context.
- Use established scientific ideas and language to construct a well-reasoned explanation for why a phenomenon occurred as it did, or to predict the outcome of a future investigation.
- Communicate scientific ideas in a variety of formats; depending on context these could be oral, written, diagrammatic, physical model, or algebraic.
- Analyze and discuss the impact of scientific discovery on human thought and behavior and understand that the scientific process is a human endeavor that has inherent uncertainty that can be quantified.
- Apply unifying principles of science and the scientific method to problems or issues of a scientific nature and contrast them to non-scientific explanations.

Financial and Digital Literacy

Student Learning Outcomes

Financial Literacy Subcategory

All courses in this category must meet both student learning outcomes listed below.

Students will:

- Understand essential elements of personal finance.
- Assess personal financial wellness and implement strategies for improvement.

Digital Literacy Subcategory

All courses in the Digital subcategory must meet all 3 of the student learning outcomes listed below.

Students will:

- Locate, critically evaluate, and demonstrate proficiency with various digital resources (including online information, apps, online learning, and other web-based tools).
- Demonstrate responsible use of software, databases, and online tools, including generative AI.
- Identify and evaluate ethical considerations related to data privacy, intellectual property, and the role of algorithms in mediating access to digital information.

Gen Ed Implementation Committee

- Holly Anthony (co-chair), Tech Tomorrow Innovation in All We Do faculty leader
- Linda Null (co-chair), Professor of English
- Debbie Barnard, Professor of Foreign Languages
- Stacey Browning, Assistant Professor of Nursing
- Amanda Carroll, Master Lecturer of Chemistry
- Brittany Copley, Associate Director of the Office of the Registrar
- Chuck Craig, Advisor in the College of Education & Human Sciences Student Success Center
- Dennis Fennewald, Associate Professor of Agriculture
- Colin Hill, Director of the School of Music
- Kelly McCallister, Dean, Volpe Library
- Colleen Mestayer, Senior Lecturer of Communication
- Alma Núñez, Professor of Economics, Finance & Marketing
- Lindsey Roberts, Coordinator in the Honors College
- Cara Sisk, Assistant Professor of Human Ecology
- Doug Talbert, Professor of Computer Science
- Chris Wilson, Chair of Basic Engineering

General Education Committee

- Linda Null (chair), Professor of English
- Melinda Anderson, Director of the School of Human Ecology
- Tony Baker, Professor of English
- Arthur Banton, Assistant Professor of History
- Scott Christen, Chair, Department of Communication
- Daniel Combs, Professor of Biology
- Julie Galloway, Director of the College of Business Student Success Center
- Steven Isbell, Professor of Economics, Finance & Marketing
- Barbara Jared, Director of the Whitson-Hester School of Nursing
- Krystal Kennedy, Assistant Professor of Education
- Tammy Keylon, Director of the College of Interdisciplinary Studies Student Success Center
- Lori Maxwell, Chair, Department of Sociology & Political Science
- Allan Mills, Associate Dean of the College of Arts & Sciences
- Jeannie Smith, Director of the College of Interdisciplinary Studies Student Success Center (retired)
- Lenly Weathers, Professor of Civil & Environmental Engineering
- Jerri Winningham, Director of Operations, Enrollment Management
- Kim Winkle, Director of the School of Art, Craft & Design

Subcommittees

Members of both the Gen Ed Implementation Committee and General Education Committee were assigned to one of seven subcommittees (four academic area groups and three procedural groups).

Academic Area Subcommittees

Communication & Natural Science

Debbie Barnard, Tony Baker, Amanda Carroll, Scott Christen, Dan Combs, Stacey Browning

Mathematics & Humanities/Fine Arts

Colleen Mestayer, Allan Mills, Cara Sisk, Chris Wilson, Kim Winkle

History & Social Sciences

Arthur Banton, Chuck Craig, Dennis Fennewald, Colin Hill, Krystal Kennedy, Lori Maxwell

Digital & Financial Literacy

Steven Isbell, Kelly McCallister, Alma Núñez, Doug Talbert

Procedural Subcommittees

Course Proposal Review

Melinda Anderson, Barbara Jared, Lindsey Roberts

Gen Ed Teaching Award

Tammy Keylon, Jeannie Smith, Lenly Weathers

Policies & Procedures

Brittany Copley, Julie Galloway, Jerri Winningham