# HUMANITY AND TECHNOLOGY, BA

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**Degree:** Bachelor of Arts (BA)
**Major:** Humanity and Technology

## Program Overview

The Humanity and Technology major is the centerpiece of the Experimental Humanities Program, a cutting-edge, interdisciplinary program that facilitates the mutually transformative integration of humanities (including arts) fields with STEM fields through new and emerging technological tools and methods.

As a student in the Humanity and Technology major (aka "HAT"), you will be able to integrate your interests in science and technology with your interests in the humanities and arts by raising new kinds of questions and undertaking new lines of inquiry not available to humanists or scientists working in isolation. Ethical engagement and leadership development are embedded into student learning, as are opportunities for research and experiential learning. The major combines the interpretive, critically reflective tools of the humanities with the collaborative, experimental methods of the sciences, giving you the tools and experiences to design and develop new approaches, advance new understandings, and build new models of community and collaboration among humanities, the arts, and STEM. In this way, the major prepares you to be a leader in addressing the world's most pressing issues at the interface of humanity and technology.

## Learning Outcomes

- Demonstrate an understanding of how different modes of inquiry from STEM fields and the arts and humanities can be mutually informative and mutually transformative.
- Integrate learning and research in two fields, one in the humanities or arts and one in STEM, through applied technology in order to solve or better understand a significant problem or question.
- Demonstrate a critical understanding of ethics at the interface of humanity and technology, interrogating technological systems in everyday life for possible and potential harms, and developing leadership and community engagement skills to promote a just and sustainable sociotechnical future.
- Demonstrate core competencies and functional literacy in a field of the humanities or arts.
- Demonstrate core competencies and functional literacy in a STEM field.
- Effectively communicate orally and in writing across academic discourses in the humanities (including the arts) and STEM.

## Undergraduate Policies

For undergraduate policies and procedures, please review the Undergraduate Academics section of the General Bulletin.

## Accelerated Master's Programs

Undergraduate students may participate in accelerated programs toward graduate or professional degrees. For more information and details of the policies and procedures related to accelerated studies, please visit the Undergraduate Academics section of the General Bulletin.

## Faculty Fellows and Affiliated Faculty

Tim Beal, PhD
*Distinguished University Professor; Florence Harkness Professor of Religion, Department of Religious Studies; Director of h.lab*

Daniela Calvetti, PhD
*Distinguished University Professor; James Wood Williamson Professor, Department of Mathematics, Applied Mathematics and Statistics*

Maggie Popkin, PhD
*Professor, Department of Art History and Art*

Aviva Rothman, PhD
*Inaugural Dean's Associate Professor and Director of Graduate Studies, Department of History*

## Program Requirements

Students seeking to complete this major and degree program must meet the general requirements for bachelor's degrees and the Unified General Education Requirements. Students completing this program as a secondary major while completing another undergraduate degree program do not need to satisfy the school-specific requirements associated with this major.

This program is structured so that students will develop core competencies and capacities in two academic fields—one in the Humanities or Arts (A+H as defined by CWRU's General Education Requirements) and one in STEM (STEM+N as defined by CWRU's General Education Requirements)—and will integrate their work in those fields through applied technology in mutually transformative ways in order to address challenges problems and challenges in our increasingly socio-technical world.

The integrative core includes two foundational courses; two elective courses that integrate humanities with STEM, using humanities methods to reflect critically on science and/or technology and provide both humanistic reflection on and hands-on experiences with applied technologies and/or scientific methods; and a culminating capstone sequence.

| Code | Title | Credit Hours |
|---|---|---|
| **Integrative Core** | | |
| HTEC 101 | Introduction to Humanity and Technology | 3 |
| HTEC 301 | Humanity and Technology: Toward a Just and Sustainable Socio-technical World | 3 |
| **Two elective courses integrating Humanities with STEM** [a] | | **6-7** |
| ARTH 364 | Pressing Matters: Issues in the History of Print | |
| BIOL 225 | Evolution | |
| CSDS 101 | The Digital Revolution: Computer and Data Science For All | |
| COGS 330 | Cognition and Computation | |

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|---|---|---|
| | EEPS 205 | Climate Change Science and Society |
| | ENGL 250 | Responsible AI: Cultivating a Just and Sustainable Socio-technical Future through Data Citizenship |
| | HPSC 111 | What is Science? Introduction to the History and Philosophy of Science |
| | HSTY 201 | Science in Western Thought I |
| | HSTY 202 | Science in Western Thought II |
| | HSTY 203 | Revolutions in Science |
| | HSTY 209 | The Copernican Revolution |
| | HUMN 305 | Coding for the Humanities: Python, Natural Language Processing, and Machine Learning |
| | MATH 332 | Equations that Changed the World |
| | PHIL 204 | Philosophy of Science |
| | PHIL 393 | Ethics of Artificial Intelligence and Emerging Technology |
| **Capstone Sequence** | | **3-6** |
| | HTEC 399A | Capstone I: Humanity and Technology |
| | HTEC 399B | Capstone II: Humanity and Technology |
| **Focus Areas** | | **30-37** |
| | Focus Area I: Humanities or Arts [b] | |
| | Focus Area II: STEM [c] | |
| **Total Credit Hours** | | **45-56** |

a These two electives may not be double-counted in the requirements for Focus Area I or Focus Area II.

b Complete the requirements for a minor in an A+H (Arts & Humanities) program. Students may fulfill this requirement by majoring in one of these programs. Students may not earn a separate minor in their chosen focus area.

c Complete the requirements for a minor in a STEM+N (Science, Technology, Engineering, Mathematics & Nursing) program. Students may fulfill this requirement by majoring in one of these programs; students may only earn this focus area in Biochemistry by majoring in Biochemistry. Students may not earn a separate minor in their chosen focus area.