

Human Science, BS

Vision, Mission and Curriculum Overview

The mission of the Department of Human Science is to promote the health and well-being of all people by preparing future leaders and scholars in the health sciences. Its vision is to explore human biology and disease at the molecular, cellular, behavioral and systems levels for the improvement of human health.

The human science major is designed for students who have a passion for the scientific disciplines and wish to build a strong foundation in the basic and health sciences. Faculty members with diverse areas of expertise guide students in building critical and analytical thinking skills and in cultivating an inquisitive mind. Experiential activities in laboratory research and community health activities complement in-class learning and allow students to witness firsthand the real-life application of scientific and theoretical concepts. Experiential learning is also facilitated by the senior capstone course series, allowing students to explore and develop a research project. The program prepares students for a variety of graduate programs such as medicine, dentistry, environmental and occupational health, physical therapy, and public health, as well as many careers in biomedical science, health communication, research and teaching.

Goals and Learning Outcomes

1. To integrate knowledge of the multiple mechanisms underlying human health and disease at the molecular, cellular, systems biology, behavioral, and population level.
 - Demonstrate knowledge and understanding of the mechanisms underlying human biology.
 - Examine the influences of various factors on health state and physiological functioning including, but not limited to, genetics, the environment, health behaviors, culture, socioeconomic status, access to health care, health literacy, and disability.
 - Integrate course material across fields into scientific knowledge.
2. To develop critical thinking through the process of scientific inquiry and its translation into human health and wellness.
 - Design studies to address a specific hypothesis.
 - Engage in experiential learning to facilitate application of scientific knowledge:
 - Integrate scientific principles through laboratory and community experiences.
 - Apply scientific inquiry through a senior capstone experience.
 - Represent and analyze qualitative and quantitative data in statistically meaningful forms.
 - Critique primary scientific literature and data for quality of evidence and relevance to theory and practice.
3. To develop effective communication skills and ethical and complex decision making.
 - Communicate orally and in writing to demonstrate the ability to convey scientific information and ideas clearly and persuasively to diverse audiences.
 - Apply ethical principles to issues presented in coursework and applied research.

Curriculum Overview

During the first two years in the program, students are introduced to foundational courses, including human biology, chemistry, mathematics, pathophysiology, molecular and cellular biology, health promotion/disease prevention, and research methods in biological sciences and health. These courses are expanded by complementary studies in the liberal arts, including English, philosophy, ethics, theology, and religious studies.

In the second half of the program, students are introduced to other health sciences, including genetics, epidemiology, and applied physiology. Students will select four Human Science electives and have the opportunity to pursue minors. Some students choose to spend a semester abroad, generally in their junior year.

Motivated students may pursue independent study for up to 9-credits under the guidance of faculty. These credits must be accrued prior to the senior/final year unless an exemption is made by the department.

The two-semester senior seminar/capstone provides the opportunity for each student to identify their own area of discovery in an experiential, laboratory or archival setting of the student's choosing and to further refine both written and oral expression as the student prepares to graduate as a human science major.

Accelerated BS/MS Pathway

Qualified undergraduate students in the Human Science program have the unique opportunity to earn a BS degree in Human Science and an MS degree from one of the participating programs in Biomedical Graduate Education at Georgetown University Medical Center. Students will earn these degrees at an accelerated pace within five years (9-10 semesters). Under this structure, undergraduate students may use credits from Georgetown courses at the 4000 ("over/under") level and above towards a Georgetown graduate degree. Programs may allow up to 50% of their required credits to come from these courses, but may set lower thresholds. Students with a minimum GPA of 3.5 in the major may apply to a program no later than October 15th or January 15th of their junior year, depending on the Master's program of interest.

Please visit the [Human Science program webpage](#) and this [Biomedical Graduate Education webpage](#) for more information on the accelerated Master's degree programs.

Requirements

Code	Title	Credits
HLTH 1010	SOH First-Year Colloquium	1
MATH 1040	Probability and Statistics	4
HSCI 1780	Res Theory & Com in Sci HlthCr	3
HSCI 1030	Human Biology I	4
HSCI 1040	Human Biology II	4
CHEM 1100	General Chemistry I	3
CHEM 1105	General Chemistry Lab	2
CHEM 1200	General Chemistry II	3
CHEM 1205	Intermediate Chemistry Lab	2
HSCI 2020 or HSCI 3090	Pathophysiology Immunology	3

HSCI 2800	Biochem & Molec/Cell: Hlth & Dis	4
HSCI 1600	Hlth Promotn/Disease Preventn	3
HSCI 3550	Genetics of Health/Disease	4
HSCI 3660	Appl Epidemiology & Pub Hlth	3
HSCI 4972	Human Science Sem/Capstone I	3
HSCI 4510	Physiological Adaptations	4
HSCI 4973	Human Sci Sem/Capstone II	3
HSCI Electives		12

Georgetown Core Curriculum

The Georgetown Core Curriculum (Georgetown Core) is a distinctive expression of Georgetown University's identity as a student-centered research university rooted in the Jesuit and Catholic tradition. The Georgetown Core is a two-tiered program. The first tier – the “shared core” – has been created and approved by the Main Campus Core Curriculum Committee and is shared by all undergraduates as a common core experience. The second tier of the requirement – the “school-specific core” – is designed and determined by each of the undergraduate schools, embodying the shared learning goals of the university Core while furthering the specific mission and tradition of each school. Both the shared and school-specific cores change over time, balancing the traditional ethos of a liberal arts education with the changing needs of our students in a changing world. Ultimately, it is the hope that the entirety of a Georgetown education – the cores, majors and minors, and electives – will lead students to embody as life-long habits the goals described in the Georgetown Core Curriculum Learning Goals (<http://coursecatalog.georgetown.edu/academics/undergraduate-regulations/georgetown-core-curriculum-requirements/georgetown-core-curriculum-goals/>).

More information about the Georgetown Core Curriculum can be found on the Provost's Core Curriculum website (<https://provost.georgetown.edu/core-curriculum/#University%20Core%20Requirements>).

Georgetown Shared Core Requirements

The core requirements that form the first tier, the common experience across the University, are outlined below. Georgetown courses fulfilling each of these requirements are designated “Core: [specific requirement]” in the Attributes in the Schedule of Classes (<https://schedule.georgetown.edu/>).

Philosophy – 2 Courses

Through the Core, the Philosophy Department is committed to providing courses that promote students' personal growth as human beings in search of meaningful lives, foster their development as responsible citizens, and offer effective introductions to the discipline of philosophy. The learning goals shared by courses in the Philosophy Core are:

- Understand what philosophy is, how it differs from other academic disciplines, and what its primary areas of inquiry are.
- Understand and construct arguments.
- Describe and analyze complex problems.
- Read, write and speak effectively.
- Engage critically and constructively with moral problems and decisions.

- Apply philosophical analysis, argumentation, and critical reflection to the study of other disciplines.

Please refer to each school/college curriculum for specific courses that will fulfill this requirement.

Theology and Religious Studies – 2 Courses

Through the Core, the Theology and Religious Studies Department is committed to fostering in students a critically appreciative awareness of the religious dimension of human existence, and to assisting students in reflecting upon their own experience and understanding in that enlarged context. The first course provides this foundation while the second course allows students to develop their critical awareness by applying it to a particular area of interest in religion or theology.

The learning goals shared by courses in the Theology and Religious Studies Core are:

- To consider reflectively your relationship to the world, your fellow humans, and God.
- To foster a critically appreciative awareness of the religious dimension of human existence.
- To assist you in reflecting upon your own experience and understanding in that enlarged context.
- To develop your critical awareness by applying it to a particular area of interest in religion or theology.

Problem of God¹ (THEO 1000) and one Theology and Religious Studies elective fulfill the Theology and Religious Studies requirement. Introduction to Biblical Literature (THEO 1100) may be substituted for Problem of God or may be used as an intermediate level elective.

¹ Transfer students are exempt from the Problem of God requirement and may select any two intermediate level courses, including Introduction to Biblical Literature, to fulfill the core requirement in Theology & Religious Studies.

Writing – 2 Courses

The writing requirement provides students with opportunities to connect their writing with critical reading and thinking, inquiry, and analysis. The Writing and Culture Seminar, WRIT 1150, approaches writing through three interrelated frameworks: writing as a tool for inquiry, writing as a process, and practice writing in different rhetorical situations. Each section focuses on a cultural theme, with readings and assignments that engage students with compelling questions and problems. Seminar readings provide texts for analysis as well as models and motives for student writing. Students are encouraged to complete this course during their first year at Georgetown. The learning goals shared by different sections in the Writing and Culture Seminar are:

- Experiment with diverse strategies for planning, drafting, and revising writing.
- Adapt writing to respond to, engage, and persuade audiences.
- Employ rhetorical strategies for analyzing, designing, and communicating in writing and other forms of media.
- Engage in writing as a form of thinking, inquiry, and learning.

The second half of the Writing Core is an intensive writing experience located within the student's chosen major, embedded within the requirements as determined by that program. Each major's Integrated

Writing requirement is established by the department or program in order to express the unique conventions and practices of the discipline. The learning goals shared by courses in the Integrated Writing Core are:

- To prepare students to use the relevant forms, styles, and conventions of writing within their chosen major(s).
- To employ writing as a method to enhance students' learning of concepts, materials, and methods in their major.

Courses fulfilling this requirement are identified within each major.

Humanities: Art, Literature, Music, and Media (HALM) – 1 Course

(Formerly Humanities: Art, Literature and Culture (HALC))

The Humanities: Art, Literature, Music, and Media (HALM) requirement serves to deepen students' understanding and experience of a range of creative media representing cultural expressions from various historical periods and world regions, from the local to the global.

Through reading, listening, viewing, analyzing, writing, and/or creative practice, students acquire the intellectual and practical tools to interpret human experiences portrayed in the arts, literature, music, and media.

HALM Learning Goals:

- Understand how art, literature, music and/or media have historically shaped and been shaped by cultures.
- Develop generative habits of mind and exercise critical thinking skills for a world in flux: openness, resilience, curiosity, creativity, imagination.
- Activate knowledge through creative, analytical, and/or critical approaches in individual, collaborative, and/or public-facing projects.

HALM courses must be Georgetown University courses and cannot be fulfilled by transfer credits; they must be 3-credit courses. Courses that can fulfill other Core requirements (such as HIST, PHIL, THEO) are ineligible.

In 2026-27, the older "HALC" designation (Humanities: Arts, Literature, and Culture) will be replaced with HALM (Humanities: Arts, Literature, Music and Media). For this academic year, courses with the designation will be tagged with both HALC and HALM. In Fall 2027, the tag HALC will be retired in favor of HALM.

Science For All – 1 Course

The natural sciences, and the technologies that they enable, are woven deeply into the fabric of our lives and are central to many of the important political and social challenges that we face. They are also pinnacles of intellectual accomplishment in humanity's ancient and ongoing quest to understand the world in which we live. Thus we believe that to function as liberally educated, ethically responsible citizens, as stewards of the planet, and as effective leaders, all Georgetown students should understand scientific modes of thought and concepts, both in the abstract and as they are exemplified in at least one major area of scientific inquiry. The Science For All (SFA) Core requirement is grounded in these beliefs. The learning goals shared by courses in the Science for All Core are:

- To understand the basic principles and some current research challenges of one or more areas of science.
- To understand science as a set of methods of inquiry that involve forming and testing hypotheses through the analysis of quantitative and qualitative data.
- To consume and interpret scientific information with critical understanding of the balance of certainty and uncertainty that research findings inevitably reflect.

Quantitative Reasoning and Data Literacy – 1 Course

This requirement applies only to students in the class of 2028 and later.

The Quantitative Reasoning and Data Literacy (QRDL) requirement will help students learn to understand how real-world interpretation of data progresses from a set of numbers, frequently incomplete and with measurement errors, to a visual distillation that clearly conveys meaning. While mathematics and statistics provide a necessary foundation for quantitative reasoning and data literacy, the power of pure mathematics lies in its abstraction. In contrast, QRDL emphasizes a distinctive variety of concrete contexts and applications. The learning goals shared by courses in the Quantitative Reasoning and Data Literacy Core are:

- To build a quantitative toolbox that allows students to become comfortable performing and/or evaluating quantitative analyses.
- To translate and make meaning of data and quantitative analyses as they apply to complex problems.
- To effectively communicate statistical methods and results both visually and textually to a diversity of audiences with considerations to contextual, social, or ethical issues.

Engaging Diversity/Pathways to Social Justice

For students in the class of 2025, 2026, or 2027

Engaging Diversity (2 courses)

All Georgetown students are required to take two Engaging Diversity courses as overlays, meaning that the courses may count toward another degree requirement (Core, major, or minor). One of these courses must be labeled with a "Core: Diversity Domestic" attribute and one must be labeled with a "Core: Diversity Global" attribute.

In courses designated as fulfilling a diversity requirement, students will engage with different cultures, beliefs, and ideas. These courses will explore conditions that contribute to unequal access and influence. Finally, these courses should enable students to reflect on their own identities as they also deepen their understanding of the experience of others. The learning goals shared by courses in the Engaging Diversity Core are:

- To prepare students to be responsible, reflective, self-aware and respectful global citizens through recognizing the plurality of human experience and engaging with different cultures, beliefs, and ideas.
- To be better able to appreciate and reflect upon how human diversity and human identities shape our experience and understanding of the world.

For students in the class of 2028 and later

Pathways to Social Justice (3 courses)

Georgetown's Pathways to Social Justice (PSJ) curriculum prepares students to critically analyze historical and contemporary power differentials. By fulfilling the Pathways to Social Justice requirement, students will gain a better understanding of how social, political, geographic, economic, and other cultural factors shape experiences of the world, as well as how these factors contribute to marginalization and inequality. PSJ courses will also explore how communities have resisted marginalization, and will focus on axes of identity that have formed the basis for historical and contemporary marginalization and oppression, including race, gender, class, caste, disability, religion, sexual orientation, and gender identity.

A cornerstone of this requirement is the one-credit University Seminar in Race, Power, and Justice which is designed to ensure that every student at Georgetown develops a baseline vocabulary for discussing racial difference and marginalization. This seminar will provide the foundation for each student's engagement with other PSJ-attributed "overlay" courses offered across Georgetown's Main Campus and should be taken in the first year.

In addition to the required one-credit University Seminar in Race, Power, and Justice, the requirement also requires students to take two overlay courses (meaning that these courses may count toward another degree requirement, whether core, major, or minor). Eligible courses have the "Core: PSJ" attribute.

Each course in the Pathways to Social Justice Core works toward at least three of these shared priorities:

- Inclusive Scholarship
- Intersectional Approaches to Identity
- Historical Legacies of Inequality and Their Contemporary Impacts
- National, Regional, and Global Comparisons
- Imagining Justice