The opening sentence in the University of Virginia’s mission statement describes its educational purpose:

*The University of Virginia is a public institution of higher learning guided by a founding vision of discovery, innovation, and development of the full potential of talented students from all walks of life.*

The University of Virginia promotes undergraduate competency in critical thinking. Students encounter instruction in critical thinking throughout their undergraduate program of study. Each of the nine schools serving undergraduate students defines general education requirements, which include courses in humanities, social sciences, and sciences.

Assessment of students’ competency in critical thinking, fundamental to developing the full potential of students, serves to identify strengths and weaknesses in students’ critical thinking skills that can be addressed through instruction. Also key to successful implementation of this initiative is understanding the students’ point of view—their participation and experience with instruction in research and academic writing, and their perceptions of their own proficiency in critical thinking. The goal of improving students’ critical thinking entails understanding the wide range of factors—from learning opportunities to students’ experiences and confidence—that can affect progress.

Together, assessments of students’ critical thinking in multiple disciplines and students’ self-assessments and experiences informed an overall understanding of critical thinking and instruction at the University. This report describes the use of assessment to understand critical thinking from across the undergraduate disciplines. The report also highlights examples of instruction in critical thinking in the College of Arts and Sciences, the undergraduate programs in Chemistry and Religious Studies, and in the School of Engineering and Applied Science.
CRITICAL THINKING: DEFINITION AND LEARNING OUTCOME

Critical thinking is the ability to subject one’s own and others’ ideas, arguments, assumptions, and evidence to careful and logical evaluation in order to make an informed judgment, draw a sound conclusion, or solve a problem.¹ At UVA, students are expected to demonstrate the ability to explore issues, ideas, artifacts, and/or events in order to accept or formulate an opinion or conclusion.

CRITICAL THINKING: ASSESSMENT METHODS

In 2022, the University undertook an assessment of undergraduate student proficiency in critical thinking. The assessment incorporated two methods: direct assessment of samples of student papers, and a survey that elicited students’ self-assessment of their skills in critical thinking and their experiences in instruction in critical thinking.

DIRECT ASSESSMENT OF STUDENT LEARNING

To assess the learning outcome—“students will demonstrate the ability to explore issues, ideas, artifacts, and/or events in order to accept or formulate an opinion or conclusion”—the direct assessment articulated and focused on eight measures:

1. Context and purpose for writing
2. Source evaluation and selection
3. Source and evidence interpretation and incorporation
4. Source attribution and citation
5. Organization and structure
6. Development of ideas/arguments
7. Conclusions
8. Syntax and mechanics

A representative sample of academic programs identified courses taught in 2021-2022 in which 3rd and 4th year students were assigned papers requiring them to research and analyze topics. The sample of students’ papers was assessed by applying a rubric, which was based on the AAC&U VALUE Critical Thinking, Written Communication, and Information Literacy rubrics². The rubric addressed the eight measures, modified as needed to reflect disciplinary expectations. For each learning outcome, faculty raters scored over 300 student papers from 18 courses on a scale from 1 (Developing) to 4 (Highly Proficient); each paper was scored by at least two raters to assure consistency.

Expectations for fourth-year students’ proficiency in information were determined by faculty committee: 25% highly proficient; 75% proficient; 100% competent. On average, students’ papers were scored as

² https://www.aacu.org/initiatives/value-initiative/value-rubrics
demonstrating proficiency (See Figure 1). Fully 35% of the papers scored as highly proficient, well above expectations (25%). However, only 69% scored as proficient or better when 75% were expected to do so. Finally, only 93% scored as competent or better when 100% were expected. Students’ papers scored the highest on the two criteria addressing Sources (3.1 for both) and the lowest on Conclusions (2.7), although the differences are slight.

**Figure 1**

Average Critical Thinking Scores by Outcome in 2022

![Graph showing assessment scores for different criteria](image)

*Note. A four-point scale was used for assessment scoring; 1=Developing, 2=Competent, 3=Proficient, 4=Highly Proficient

These results should be considered with caution as they may reflect impact of the pandemic on learning and instruction. The sampled papers had been submitted by third- and fourth-year students enrolled in Fall 2021 or Spring 2022 courses. These students, just one and a half to two years prior, had experienced the sudden pandemic-driven switch to online classes and new grading schemes on top of the personal stress of negotiating a pandemic. That experience may have affected their opportunities to learn best practices and to gain experience in critical thinking in an academic setting.
SELF-ASSESSMENT OF STUDENT LEARNING AND EXPERIENCE

For the assessment via survey, this report relies on results from the Student Experience in the Research (SERU)³ survey which is administered biannually. All undergraduate students, representing all four classes, are invited to take the survey. In 2022, 24% of students (3950 students) did so. The survey addresses students’ educational, extracurricular, and social experiences at the university. Among the topics, the survey asks students about critical thinking, including about instruction they receive in analytical thinking, research methods, and information management, plus their participation in research, either on their own projects or with faculty. They are also asked to self-assess their skills in critical thinking “now” and when they started at UVA. The following analyses represent answers from students in all four classes and from population groups (gender, first-generation, international/not a citizen, low income/Pell recipient, and race).

An essential component of critical thinking is information literacy, that is, the ability to identify needed information, evaluate sources of information, and apply information to understand an issue or problem. In 2022, SERU respondents reported confidence in their ability to find, evaluate, and correctly cite sources. In the survey, they were asked to rate their agreement or disagreement with four statements:

1. I know where to go for help in finding specific information or sources.
2. I am confident in my ability to find relevant information or sources.
3. I am confident in my ability to evaluate sources of information for accuracy, currency, and reliability.
4. I know how to credit and cite correctly the work or ideas of others.

Eight in ten respondents agreed or strongly agreed that they were confident in their abilities to find, evaluate, and correctly cite sources of information (Figure 2). Somewhat fewer (68%), however, apparently did not know where to go for help in finding specific information or sources of information. How frequently did respondents interact with library staff, receive instruction from library staff in a class, or receive help from library staff with research or technology? While respondents overall said that they rarely interacted with library staff, students from underrepresented minority groups such as international students, first-generation students, and Black students, appeared to be somewhat more likely to interact with library staff in person or virtually and to receive instruction.

Figure 2

³ Student Experience in the Research University
CRITICAL THINKING INSTRUCTION AND RESEARCH PARTICIPATION

As defined, critical thinking is the ability to subject one’s own and others’ ideas, arguments, assumptions, and evidence to careful and logical evaluation in order to make an informed judgment, draw a sound conclusion, or solve a problem. This entails identifying relevant sources of information or concepts, evaluating that information, and analyzing it to fulfill an objective. The SERU survey asked students to reflect on instruction and on their participation in research.

Survey respondents were asked to reflect on their coursework that year and describe how often they were required to:

1. Recall facts, terms, or concepts.
2. Use facts and examples to support your viewpoint.
3. Analyze relationships among ideas or concepts.
4. Incorporate ideas or concepts from different courses.
5. Judge the quality of information, ideas, or conclusions.
6. Create new ideas, products, or ways of understanding.

These instructional experiences contribute to the development of critical thinking. Respondents who had not yet declared a major were asked to reflect on all their courses. Those who had declared a major were asked to reflect solely on courses in their major.

A large majority of respondents to the SERU survey (70%-87%), regardless of whether they had declared a major or not, reported that they often or very often were required to recall facts, terms or concepts; explain methods, ideas, or concepts; use facts and examples to support their viewpoints; and analyze relationships among ideas or concepts. Declared majors, reflecting on their courses in the major, were more likely than respondents who had not yet declared a major to have been required to incorporate
ideas or concepts from other courses (67% vs. 47%), judge the quality of information, ideas, or conclusions (63% vs. 53%), and create new ideas, products, or ways of understanding (53% vs. 43%).

**Figure 3**

*Percent of Respondents who Reported Being Required Often or Very Often to…*

On average, respondents report that they were “often” required to respond to these expectations. Only for the assignment, “analyze relationships among ideas or concepts,” did respondents from Underrepresented minority (URM) populations—specifically non-US citizens and Asian students—report slightly lower rates.

The survey also asked students if they were “currently doing or had done” each of three research endeavors:

1. A research project or research paper as part of your coursework
2. A creative project as part of your coursework
3. At least one research methods class

On average, about three-quarters of respondents affirmed that they were currently completing or had completed a research project, research paper or creative project as part of their coursework. About 40% were taking or had taken a research methods course. About 20% reported that they were or had assisted faculty in conducting research. Male students and Asian students were slightly less likely to have taken a research methods course or completed a research project as part of their coursework.

**SELF-ASSESSMENT OF CRITICAL THINKING WHEN STARTED AT UVA AND “NOW”**

The survey asks students to self-assess their skills in analytical and critical thinking when they started at UVA and “now.” Results reveal students’ perception that, on average, their analytical and critical thinking
skills improved during their undergraduate education (Figure 4). While 32% of respondents assessed their proficiency as very good or excellent when they started at UVA, fully 70% assessed their proficiency “now” as very good or excellent. Likewise, 24% percent of respondents assessed their proficiency as poor or fair when they started, a percentage that shrank to 4% “now.”

**Figure 4**

*SERU Respondents’ Self-Assessed Analytical and Critical Thinking Skills When Started and “Now”*

![SERU Respondents’ Self-Assessed Analytical and Critical Thinking Skills When Started and “Now”](image)

Under-represented minority (URM) groups, such as first-generation students, international students, Pell grant recipients, and Asian and Hispanic students rated their proficiency lower than other students on both self-assessments—“when started” and “now” (Figure 5). Similar to all others, respondents from these groups increased their self-assessments by 14-19% between “when started” and “now”. Note: these changes represent self-assessments over the course of one to four years as the respondents represented all classes.

**Figure 5**

*Survey Respondents’ Self-Assessed Analytical and Critical Thinking Skills When Started and "Now" by Population Group (Averages)*
Note. Survey responses represent the following scale; 1=Very poor, 2=Poor, 3=Fair, 4=Good, 5=Very Good, 6=Excellent

The survey also asks students to self-assess their ability to read and comprehend academic material “now” and when they started at UVA. As with the analytical and critical thinking measure, survey respondents again reported substantial increases in proficiency. Fully 63% of respondents assessed their ability “now” as very good to excellent, an increase from 26% when they started at UVA (Figure 6).

**Figure 6**

*Survey Respondents' Self-Assessed Ability to Read and Comprehend Academic Material When Started and "Now"*

For both self-assessment measures, respondents from some URM groups assessed their skills lower than other groups both “when they started” and “now” (Figure 7). Regarding the ability to read and comprehend academic material, self-assessments among first-generation students, Pell recipients, and Hispanic students rose at a slightly higher rate (22-24%) than other students’ assessment did (18-20%).
Note: these changes represent self-assessments over the course of one to four years as the respondents represented all classes.

**Figure 7**

*Survey Respondents’ Self-Assessed Ability to Read and Comprehend Academic Material by Population Group*

Note. Survey responses represent the following scale; 1=Very poor, 2=Poor, 3=Fair, 4=Good, 5=Very Good, 6=Excellent

**SUMMARY OF ASSESSMENT RESULTS**

In combination, the results from the assessment of student papers and the self-assessments by survey respondents reflect proficiency—and growing proficiency—among a large proportion of undergraduate students. Based on assessments of students’ papers, more than one third of students were deemed highly proficient in critical thinking, two-thirds as proficient or better, and 9 in 10 as competent or better. When asked to self-assess their critical thinking and analytical skills, 70% of survey respondents assessed their proficiency “now” as very good or excellent, consistent with the direct assessment of student writing. Only 32% had self-assessed their proficiency as very good or excellent when they started at UVA. While respondents from URM populations self-assessed their skills at lower levels than non-URM respondents, they also increased their self-assessments substantially between “when I started” and “now.” Moreover, the survey results reveal that respondents are required in their courses to practice critical thinking skills and are engaged through their coursework and their research or creative projects in learning to think critically and to apply their skills.
CRITICAL THINKING: CURRICULAR EXAMPLES

The College of Arts and Sciences and the School of Engineering and Applied Science, which together account for 8 in 10 undergraduate students at UVA, provide a window into the range of curricula that support instruction in critical thinking. Below, four programs illustrate curricular requirements—two at the program level and two at the school level.

SCHOOL OF ENGINEERING AND APPLIED SCIENCE: THE ENGINEER, ETHICS, AND PROFESSIONAL RESPONSIBILITY

The School of Engineering and Applied Science (SEAS) was established in 1836 as the first engineering school in the South. With continued growth on the horizon, it currently serves nearly three-thousand undergraduates studying nine engineering disciplines, the second largest school at UVA in terms of enrollment. The mission of SEAS is to make the world a better place by creating and disseminating knowledge and by preparing engineering leaders to solve global challenges. Among its core values is “imbuing students with technical and professional knowledge that is applied with integrity and wisdom, so they are fully prepared to be the leaders of the future.” While each of the undergraduate engineering degree programs determines its curriculum, all students are required to complete four other SEAS courses:

- Offered for the first time in AY 2023-24, a two-semester first-year course—Engineering Foundations—introduces students to engineering practice and design, incorporating societal and ethical concepts and fundamentals of effective communication in engineering.

- Introduced in AY 2021-22, a one-semester second-year course—Engineering Ethics—uses micro ethics to transcend the prototypical “rational actor” model of engineering ethics education. In that course, student learning teams provide the context for authentic ethical skill-building as students negotiate working relationships and group dynamics.

- A SEAS requirement for over 25 years, STS and Engineering Practice and The Engineer, Ethics, and Professional Responsibility is a two-course sequence that provides foundational skills for ethical leadership and cultivates appreciation for sociotechnical and macro ethical dynamics. Through this course, students plan, research, and complete their Undergraduate Thesis Portfolio, which includes: the technical capstone project report of their major discipline; a Prospectus for doing a specific research project to examine the social, ethical, and professional issues of concern in the technical project; the final STS Research Paper; and a synthesis of the technical and STS papers. Students also present their work in a formal oral presentation.
Unlike similar programs at peer institutions that are offered through colleges of humanities or social sciences, being situated within the engineering school, these four courses enable the school to educate its students within the immediate context of engineering, to provide broad understanding and critical socio-technical thinking to their technical work. The breadth and depth of formal and informal writing, oral presentations, and teamwork covered in these courses is essential to the preparation of future engineers, who will have to draw on these skills in their daily work.

**College of Arts and Sciences: College Curriculum**

In October 2019, the faculty of the College of Arts & Sciences approved the adoption of the *College Curriculum* as the general education requirements for Arts & Sciences undergraduates. The College Curriculum entails three groups of requirements: *The Engagements*, *The Literacies*, and *The Disciplines*. Students must complete all three subcomponents, accounting for 51-55 credits in the College. Transfer credit, including AP, IB, and Dual enrollment credit can count towards requirements in the Literacies and Disciplines sub-components.

As described above, the *Engagements* are a series of four courses taken exclusively in the first year of study. The Engagements introduce students to four intellectual dispositions that undergird all scholarly inquiry at the collegiate level:

- Engaging Aesthetics,
- Empirical and Scientific Engagement,
- Engaging Differences, and
- Ethical Engagement.

These small, seminar-style courses ask big questions and emphasize participation and engagement and are taught primarily using group projects and discussion in an “engaging” environment. Having completed this series of four courses, students will be prepared to think critically about their continue studies while having developed the capacity to recognize context as an important contributor to understanding.

The *Literacies* help students master vital skills and expand their capacity to understand and engage the world even more deeply. Students equip themselves with the study of a “world language” through the intermediate level, learn how to communicate in speech and writing through the completion of two writing-intensive courses, and learn to communicate with numbers through the completion of two courses in the “Quantitative, Computational, and Data Analysis” category.

The *Disciplines* ask students to explore the different scholarly practices and disciplinary thinking manifest throughout the Arts & Sciences. Students complete one course in each of the following seven categories of classes:

1. Artistic, Interpretive, & Philosophical Understanding
2. Chemical, Mathematical, & Physical Universe
3. Cultures & Societies of the World
4. Historical Perspectives
5. Living Systems
6. Sciences & Society

As of this year, AY2023-2034, the Engagements curriculum has been fully scaled to serve all students in Arts and Sciences. During the roll-out, the program underwent comprehensive assessments in AY 2018-19 and AY2019-20 with reports provided to the faculty. Since then, the program conducts both programmatic and learning outcomes assessments semi-annually.

CHEMISTRY: INTRODUCTORY COURSE SEQUENCE

The Department of Chemistry provides teaching and research at the undergraduate, graduate, and post-doctoral level and offers bachelors, masters and doctoral degrees. The goal of the department is to provide students opportunities to learn, apply and extend the fundamental concepts and methods of chemistry. These goals are reached by lecture and laboratory courses, seminars, and research projects. The degree and research programs prepare students for careers in biological and physical sciences and medicine, as well as a range of other fields.

The introductory course sequence in Chemistry has been an important focus of systematic assessment of student learning. The two-semester course covers core concepts, including chemical structure/bonding, kinetics and thermodynamics, and chemical reactions. The two-course sequence serves students both in the College of Arts and Sciences and in the School of Engineering and Applied Science.

Student performance has been compared with results from GRE test results; for example, in 2013, students’ scores were comparable to those of all GRE test-takers who are applying to graduate schools. The program took this as evidence that students were gaining mastery of core concepts. However, another assessment painted a less rosy picture. Data collected from 2013-2016 showed significant disparities for traditionally under-supported groups in the Introductory Chemistry series. Female, first-generation, and under-represented minorities (URM) had larger DFW (grade=D or F, or student Withdrawal) rates than other students.

In a conscious effort to address these racial, gender, and experience discrepancies, the Introductory Chemistry course was re-designed in 2016 to employ an active learning pedagogy. Beginning in 2018 with a small pilot of 80 students, the new curriculum—Expo—was rolled out over two years, each time increasing the number of students enrolled in Expo sections. Other students were enrolled in course sections that were taught according to the traditional curriculum, which consisted of a standard textbook plus three 50-minute lectures per week. In contrast, the Expo curriculum consisted of one 75-minute lecture per week plus one 75-minute active learning session per week in which students formed teams of 4-5 students to solve problems, explore topics, and learn to “think like a chemist.” These team sessions were designed to have real-world relevance, to challenge students with “ill-defined activities” (problems to solve) and opportunities for collaborative learning, and to facilitate sustained thinking and integration.
across subject areas. Echo classes encourage student engagement through settings conducive to active learning.

The faculty stated they wanted students to conduct inquiry and construct knowledge that would help them achieve the following:

- Acknowledge that chemistry is still being discovered and there are still unknowns,
- Introduce integrated concepts rather than isolated topics,
- Make the course less about memorization and more about thinking through different solutions to develop problem solving skills,
- Provide more accurate descriptions of the different areas of Chemistry and the different areas/careers chemists have (beyond medicine),
- Better prepare and expose students to what the future higher-level classes in chemistry include, and
- Deliver authentic instruction to connect the relevance of chemistry the students are learning to what they observe in the world,
- Design an introductory chemistry course that the entire department participated in the setting of core goals for the course.4

Each semester, the faculty assessed student learning in course sections, using both direct and indirect measures, comparing learning in Expo sections with that of students in the more traditional, large lecture only “Traditional” sections. Assessments evaluated student retention among all students and among students from underserved populations, comparing results for the traditional curriculum and the Expo curriculum. Overall, the Expo curriculum reduced the gap in retention that had been documented prior to the curriculum re-design. The underserved population was defined as including first-generation, Pell grant recipients, transfer students, or underrepresented racial/ethnic minority students. For students in the traditional curriculum, the percent who earned a D, an F, or withdrew was 10% among all students and 20% among students from underserved populations. For students in Expo, the percent of students who earned a D, F, or withdrew was 0.8% among all students and 1.1% among the underserved population. Fully 84% of students in Expo continued on to the spring semester CHEM 1420 course while only 72% of students in the traditional curriculum course did so.

In light of the positive assessment results, the pilot was expanded in 2018 to include half of students enrolled in the course. Test questions employed to assess student performance were modified to reflect the new Expo curriculum. In academic year 2020-2021, the Expo curriculum was fully adopted and began to enroll all students taking the CHEM 1410-1420 sequence.

4 Giering, Judith, Hunger, Gail, Columbus, Linda. Fostering discovery and innovation through problem-based learning and reinforcing experiences.
The assessment revealed overall student performance to be relatively consistent over the roll-out period, despite the changing circumstances both inside and outside the classroom (i.e., pandemic). Certain learning outcomes did show either marked improvement (conceptual understanding of K) or a decline in performance (molecular level understanding of strong acid/base). It is the goal of the instructors to use these results to focus resources on developing material and activities for the course. Untangling the effects of the pandemic, the shift to the Expo-style, and performance changes on individual assessment questions is ongoing, requiring time, effort, and collaboration among the introductory-sequence instructors.

**Religious Studies: Core Curriculum and Interdisciplinary Concentrations**

In 2019, the Department of Religious Studies initiated a review of the undergraduate program, facilitated in part by the department’s self-study and external review. The self-study articulated two goals for the undergraduate program, both of which had students’ critical thinking at their core: “to develop the major to better reflect the increasingly complex interweaving of religion within our globalized world” and “to implement a new undergraduate curriculum that works in an integrated fashion with the new College general education curriculum.” The College was in the midst of implementing the new College Curriculum5 which fosters critical thinking in part through the new Engagement courses6.

The subsequent external review, noting that the department is one of the top departments of religion in the world, acknowledged the department’s goals and plans to address potential changes in pedagogy and curricula, based in part on student learning outcomes assessments. At that time, the undergraduate program offered concentrations in five major religions—Buddhism, Christianity, Hinduism, Islam, and Judaism—plus one region-based focus: Religions of Africa and the African Diaspora. The external reviewers suggested “organiz[ing] the major in terms of themes that cut across traditions, an approach that might highlight the interactions between specific religious groups in different geographical areas, as well as the interweaving of religion with politics, environmental studies, migration, etc.”7

After two years of deliberation, the program affirmed the core curriculum and proposed four new interdisciplinary concentrations for Religious Studies majors. The core curriculum requires students to complete three courses:

**RELG 1000: Questions in the Study of Religion** - This course introduces students to the expansive, interdisciplinary world of religious studies, covering key topics such as ritual, belief, power, ethics, spirituality, theologies, and literature and arts. The course also acquaints students with theoretical and methodological perspectives.

**RELG 3730: Theories and Methods in the Study of Religion** - Through this course students have the opportunity to explore major theoretical and methodological perspectives, conversations,

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5 [https://gened.as.virginia.edu/about](https://gened.as.virginia.edu/about)
6 [https://gened.as.virginia.edu/engagements](https://gened.as.virginia.edu/engagements)
7 External Review Report: Department of Religious Studies, University of Virginia, 2019
and controversies in the field. Covering controversies, ongoing debates, and new developments, this course helps students map out the field of religious studies and begin to situate their own studies within it.

**RELG 4500: Major’s Seminar** - This course addresses the study of religion as an interdisciplinary subject, utilizing methods in history of religions, theology, sociology, psychology, and literary criticism to examine the variety of impacts of religion and religious thinking.

The four new concentrations affirm and reinforce the premise of the department’s mission that informed participation in pluralist societies requires understanding and critically analyzing religious worlds in their many forms and through a diversity of methods:

**Religion, Politics, and Global Perspective:** The goal of this new concentration is to “provide students with a multi-faceted education in the many ways religion has shaped human societies on scales from the personal to the national, based on the proposition that informed participation in pluralist societies requires understanding religious worlds. Students engage critically with the religious underpinnings of global events, politics, cultures, and ideas, transnationally and transculturally. Courses address the intersection of religion with history, culture, theory, and political thought.”

**Religion, Ethics, and Philosophy:** Through this concentration, students explore fundamental questions of religion, ethics, and philosophy pertaining to present day issues such as climate change, social justice, and religious violence. Students learn to employ diverse and interdisciplinary methods of study including anthropology, history, philosophy, and politics.

**Religion, Literature and the Arts:** The goal of this concentration is to provide “students with the opportunity to study religious traditions and questions through explorations of a wide range of forms of expression and imagination. Through literary texts—poetry, stories, myths, legends, dramas—and other artistic forms—images, paintings, music, songs, sacred objects—students learn to investigate critically how these literary and artistic works explore and express religious questions, themes, and concerns. Students in this concentration take up questions of aesthetics, poetics, hermeneutics, and ethics as they explore texts, objects, and creations from diverse religious traditions and cultures.”

**Religions of the Americas:** The goal of this concentration is to instruct students in the diversity of religions across the Americas and in the interdisciplinary methods employed to understand the

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range of religions and their impact on social, cultural, and political traditions and issues. Critical analysis incorporates historical, anthropological, cultural, ethical, and theological approaches to understanding the range of religions and their manifestation across the Americas.\textsuperscript{11}

As the department works to integrate interdisciplinarity into curricular offerings, it promotes the value of teaching students to think critically, that is, to enhance their “ability to subject one’s own and others’ ideas, arguments, assumptions, and evidence to careful and logical evaluation in order to make an informed judgment, draw a sound conclusion, or solve a problem.” As described by the Department:

\textit{Students who major in Religious Studies gain expertise in the history and practices of religious traditions, encountered from a variety of disciplinary perspectives, and in theoretical discussions across multiple domains: from literature and the arts, to ethics and philosophy, to politics and global affairs. Students also learn how to engage with sources critically and sensitively and to communicate their ideas and arguments clearly.}\textsuperscript{12}

\textbf{IN CLOSING}

This methodologically integrated approach to assessment revealed substantial evidence of undergraduate students’ critical thinking competency. Seven in ten students are not just competent, but proficient in critical thinking, a conclusion agreed upon both through the direct assessment of students’ papers (69% proficient or very proficient) and survey-based assessment of students’ self-assessments (70% very good or excellent). While survey respondents from underrepresented minority groups self-assessed at slightly lower levels of proficiency some also showed higher rates of improvement. About three-quarters of survey respondents affirmed that they were currently completing or had completed a research project, research paper or creative project as part of their coursework. Eight in ten respondents agreed or strongly agreed that they were confident in their abilities to find, evaluate, and correctly cite sources of information.

The University of Virginia promotes undergraduate competency in critical thinking. Students encounter instruction in critical thinking throughout their undergraduate program of study as exemplified by the curricula in the College of Arts and Sciences and in the School of Engineering and Applied Science. Moreover, schools and academic programs continue to pursue and modify instructional pedagogy and content to improve students’ critical thinking. The recent curricular developments at the school level, plus the two academic programs described, demonstrate the broad and deep commitment to fostering critical thinking at the University of Virginia.

\\textsuperscript{11} Academic Affairs Committee of the Faculty Senate. New concentration proposal: Religions of the Americas. Department of Religious Studies, 2022.
\textsuperscript{12} \url{https://religiousstudies.as.virginia.edu/major}