VirginiaTech
Invent the Future

Curriculum for Liberal Education

A Guide for Students, Advisors & Faculty

2008 - 2009

Updated: June 2008

Note: As of October 2006, the University Core Curriculum was renamed the Curriculum for Liberal Education

The Curriculum for Liberal Education (CLE) at Virginia Tech

This guide will assist students, advisors and faculty in understanding the goals, structure and requirements of the Curriculum for Liberal Education (CLE) at Virginia Tech, a vital component of our undergraduate program, required for all undergraduates. Students should use this guide in consultation with their advisors as they plan their academic programs. Students should always consult with their advisors before registering for classes each term.

The Curriculum for Liberal Education:

- provides a set of learning experiences to develop:

  *strong analytical, communication, quantitative, and information skills
  *interdisciplinary perspectives across many knowledge domains
  *intercultural knowledge and collaborative problem-solving skills
  *the capacity to engage with challenging ethical, moral, social and human dilemmas
  *the ability to synthesize multiple knowledge domains, ways of reasoning, and means of creative expression;
  *integrative thinking and the ability to transfer knowledge from one setting to another;

- encourages self-reflection;
- stimulates creative and intellectual engagement;
- builds a diverse and inclusive learning community;
- develops civic, personal and social responsibility and leadership; and
- defines clearly marked pathways to student success.

Please visit the CLE website at http://www.cle.prov.vt.edu for more information, and for the current and previous years' CLE guides.

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The Currriculum for Liberal Education (CLE) at Virginia Tech
STATEMENT OF PURPOSE

Why We Have It

As a vital component of undergraduate education at Virginia Tech, the Curriculum for Liberal Education (CLE)--required of all undergraduates--empowers our students with a broad base of knowledge and transferable skills. Liberal Education provides students the opportunity for rigorous intellectual encounters with enduring human challenges and important contemporary problems, through wide-ranging exposure to multiple disciplines and ways of knowing.

Through the study of the Sciences, Mathematics, Social Sciences, Histories, Languages and the Arts, the CLE is designed to foster and develop intellectual curiosity and critical thinking; strong analytic, communication, quantitative, and information literacy skills; the capacity for collaboration and creative problem solving; the ability to synthesize and transfer knowledge; intercultural knowledge and understanding; and ethical reasoning and action. The CLE seeks to create the conditions for growing creative and intellectual engagement; civic, personal, and social responsibility; and lifelong learning.

What Students Will Gain

A liberal education offers 21st century students the foundations of what they need to live and thrive as citizens in a globally engaged democracy, a knowledge-intensive economy, and a society where new ideas and understandings are essential to progress. The success of today's college students in their communities, workplaces, and across their lifetimes depends upon a complex and transferable set of skills and capacities. In their lives and in their careers, our students must be prepared to grasp complex problems, develop a global perspective on the diversity of human experience and knowledge, respond to changing demands, and articulate innovative responses and solutions. Today's students are very likely to change jobs and even careers several times over the course of their lives; and certainly, their roles and responsibilities in their families and communities will change and evolve over their lifetimes as well.

The breadth of a rigorous liberal education combined with the depth of specialized study in the student's primary academic discipline(s)--and evidenced in a demonstrated capacity to adapt and transfer knowledge, skills, and responsibilities to new settings and questions--is essential to the education of the whole student and sets the stage for a lifetime of learning and growth.

Because the Curriculum for Liberal Education is a "living curriculum," there will be some changes from year to year. Courses added to the CLE offerings are generally available to students immediately after being approved. Some requirements of the CLE are phased in over a multi-year period. Thus, it is essential that students continue to consult with their advisors. Please visit the CLE homepage at http://www.cle.prov.vt.edu/ for more information about the CLE, and for previous years' guides.

CLE Areas of Study:

1. **Writing and Discourse** .....6 credit hours required
2. **Ideas, Cultural Traditions, and Values** .....6 credit hours required
3. **Society and Human Behavior** .....6 credit hours required
4. **Scientific Reasoning and Discovery** .....6 or 8 credit hours required*
5. **Quantitative and Symbolic Reasoning** .....6 credit hours required
6. **Creativity and Aesthetic Experience** .....1 or 3 credit hours required*
7. **Critical Issues in a Global Context** .....3 credit hours required

*Students should consult with their advisors about specific college or departmental requirements in these areas.

A Word to Students...before you start.

The Curriculum for Liberal Education is one of many key elements of your educational experience here at Virginia Tech. We refer to the sum of all of your undergraduate experiences here as **VT Pathways for Learning.**

VT Pathways for Learning is grounded in our understanding that a well-considered, integrated and engaging series of learning experiences--in and beyond the classroom--forms the basis of a meaningful and holistic undergraduate education. We are committed to providing opportunity, choice, and guidance as our students chart their own paths toward intellectual and personal success, and begin to *Invent the Future.* **VT Pathways** encompasses the multiple dimensions of the undergraduate experience, including over seventy possible academic majors and minors, University Studies, the Curriculum for Liberal Education, University Honors, education abroad, undergraduate research, service-learning, programs for first-year students, a wide variety of learning communities, quality academic and career advising, and a rich array of co-curricular opportunities. All of these areas combine to add to the depth and value of your undergraduate education, and together create **VT Pathways for Learning.**

A Pathway for Learning can be guided by advisors, faculty members, family and parents, but creating a meaningful Pathway requires involvement and initiative on the part of the student. We hope that all Virginia Tech students will consider the totality of their undergraduate education from the very beginning, dream big, and take personal responsibility for the quality of their college experience.

Undergraduate Advising at Virginia Tech

Definition: Advising at Virginia Tech is a collaborative process between student and advisor leading to the exchange of information that encourages the individual student to make responsible academic and career decisions.

Philosophy: Virginia Tech demonstrates a commitment to advising through recognizing and supporting the needs of students and advisors. Each undergraduate student at the University is provided information and assistance, which aids the individual student in making responsible academic and career decisions. Each advisor is provided the necessary tools to respond to student needs and the opportunity to be recognized and rewarded for exemplary advising. Virginia Tech, in support of this philosophy, will provide student-focused advising and assist students in developing skills that lead them to take active responsibility for the advising process.

Statement of University Responsibility - Senior leaders will provide leadership by:

- Reviewing the advising process to assess the impact of the recommendations implemented;
- Providing information for students, advisors, parents, and other constituents that clearly explains responsibilities and expectations related to advising;
- Making information available about advising for all new faculty and appropriate staff;
- Collecting and disseminating information that contributes to effective advising;
- Assisting students in clarification of academic and long term goals;
- Supporting initiatives to enhance the use of technology in advising;
- Providing support for a web-based interactive advising support system for students, advisors, parents, and other constituents; and
- Supporting a Virginia Tech plan that would effectively assess, recognize, and reward advising in the annual professional evaluation.

Statement of Student Responsibility - The student shares responsibility for developing an advising partnership with the advisor. Over time, the partnership results in increased responsibility for the student. Students are responsible for:

- Communicating goals, needs, wants, and concerns to the advisor in a respectful and sincere manner;
- Keeping abreast of their own academic progress and requirements related to their academic programs;
- Making, keeping, and being prepared for appointments with the advisor;
- Informing the advisor of changes in plans and/or circumstances that might impact academic performance;
- Knowing departmental procedures regarding changing advisors; and
- Bringing any concerns regarding the quality of advising to the attention of the advisor.

Statement of Advisor Responsibility - The advisor shares responsibility for developing an advising partnership with each student. Advisors are responsible for:

- Communicating with students and delivering individualized and accurate information in a professional and sincere manner;
- Being informed and providing accurate information about current academic policies and procedures;
- Keeping appointments and being available for assistance;
- Providing appropriate referrals, contacts, and information;
- Doing appropriate follow-up with students; and
- Seeking out and taking advantage of opportunities for professional development.

For further information about advising at Virginia Tech visit www.advising.vt.edu or contact your Advisor.

Planning a Program of Study in the Curriculum for Liberal Education (CLE) FAQ...and answers

1. What is the purpose of the Curriculum for Liberal Education (CLE)?
See the *Statement of Purpose* on page 4.

2. What unifies courses in the Curriculum for Liberal Education (CLE)?
The subjects of CLE courses vary by discipline, but they are unified by a focus on distinctive modes of inquiry and discourse, critical thinking, problem solving, and effective communication.

3. Is there any way I can be exempt from meeting these requirements?
No, all students must complete the requirements of the CLE.

4. How many credits are required?
Students must take 36 to 44 credit hours of CLE courses in seven (7) areas of study. There will be some variation in the number of credit hours required in each area, depending on your college or major. Also, a course taken to satisfy another area will simultaneously satisfy the Area 7 requirement if it is listed under Area 7. Area 7 courses may also overlap with requirements in majors, minors or areas of concentration.

5. Are the Curriculum for Liberal Education (CLE) requirements the same in all majors and colleges at Virginia Tech?
No, there are differences among the colleges in how the CLE is to be fulfilled. For example, some colleges and departments specify that certain CLE courses must be taken for particular majors. Some colleges also have additional requirements that go beyond the Curriculum for Liberal Education. Some basic information is provided in this Guide, but you should always consult with your advisor about the CLE requirements in your college or department when planning your program of study and before registering for courses.

6. How do I choose among Curriculum for Liberal Education (CLE) courses?
Some of your choices will depend upon your major; for instance, though all students take Freshman Writing in Area 1, many colleges and departments require their students to take specific mathematics courses from those listed in Area 5. Some majors have several specific CLE requirements; others leave most of the choices up to you. Your academic advisor can help you to identify your options.

7. Where do I go to obtain more information about the Curriculum for Liberal Education (CLE) requirements for my college or department?
Your academic advisor, the undergraduate office of your college, and the Undergraduate Catalog are the best sources of information. You should always consult your advisor when planning your program of study.

8. May I use Advanced Placement credits to meet Curriculum for Liberal Education (CLE)requirements?
Yes, Advanced Placement credits can be used in several areas of the CLE. However, in order to get the full benefit and best quality from your undergraduate education, it is wise to take CLE courses. For example, if you place out of a course you might take a more advanced course in the same area of study.

9. If I am a transfer student, must I complete the Curriculum for Liberal Education (CLE) requirements?
Yes, all students graduating from Virginia Tech must fulfill the CLE requirements. Courses taken at other institutions may be transferred to Virginia Tech and may count for credit if they are equivalent to the courses we offer here. Such decisions are determined by an analysis of your transcript when you enter Virginia Tech. Transfer students will graduate under the University CLE requirements in effect for the class level (Freshman, Sophomore, Junior, Senior) at which they enter Virginia Tech. Transfer students should consult with the Associate Dean for Undergraduate Programs (or Academic Affairs) in their college to make a precise determination of the CLE requirements that they must fulfill.

10. While enrolled at Virginia Tech, may I take CLE courses at another college or university and transfer them here?
Yes, provided that the courses you take are equivalent to specific CLE courses taught at Virginia Tech. Some colleges require that you obtain authorization from your academic dean before you take courses elsewhere if you intend to transfer those courses to Virginia Tech. Credit, but not grades, can be transferred. Check with your Advisor.

11. Should I take only CLE courses in the first year? No. You will also want to take other courses that are appropriate for freshmen in your major, or foundational courses such as College Success Strategies that may be of help in your success in college.

12. How long does it take to complete the CLE requirements?
The CLE is the equivalent of about one full year's academic work, or about 25% of your degree. However, most students complete most or all CLE requirements over at least a two-year period, usually in the freshman and sophomore years. It is not wise to take all CLE courses together, but to integrate them from the very beginning with your program of study in the major. Although you may want to take some upper-level CLE courses as a junior or senior, you should not wait until your senior year to complete most of your CLE requirements, because this is the time when you most need to concentrate on completing your major.

13. I've heard of something called "Satisfactory Progress." How does this relate to the CLE?
There are two checkpoints, according to the University's definition of "Satisfactory Progress," by which students must have successfully completed a certain number of credits within the Curriculum for Liberal Education. (1) by the time you have attempted 36 semester credits, you must have completed 12 credits of CLE requirements. (2) by the time you have attempted 72 semester credits, you must have completed at least 24 credits of CLE requirements. For further information, be sure to see "Student's Responsibility - Satisfactory Progress Toward Degree" in the Undergraduate Catalog. Departments also set criteria for satisfactory progress within their majors; students should check with the department or their advisor.

14. Do I need to plan the whole CLE program at once?
No, but you should be thinking about which courses you would like to take from each area (see enclosed Worksheet). Look over the options for each area to see which courses interest you most — keeping in mind the specific requirements of your major and the fact that not all CLE courses are offered every term. Your advisor can help you. (See Worksheet p. 25).

15. Who teaches the CLE courses?
Members of all faculty ranks participate in the development and instruction of CLE classes.

16. Can I take Honors Courses to satisfy CLE requirements?
Each semester, sections of some CLE courses are designated as "Honors" sections. Students in the University Honors Program may register for these sections (although they are not required to do so) and may use them to fulfill their CLE requirements. One Honors course, English 1204H, may be taken both by students in the University Honors Program and by other qualified students who are placed in the course prior to summer orientation; students who take this course should be aware that for them, this one course will satisfy the Freshman Writing requirement. For more information about the Honors Program, contact its Director, Dr. Terry Papillon, at 231-4591.

17. May I take my CLE courses pass/fail?
Courses taken on a pass/fail basis may not be used to fulfill CLE requirements unless the course is offered ONLY on a pass/fail basis.

18. What if I don't get a CLE course that I requested?
Try again during the student drop-add periods. If you are unsuccessful in adding the course, you can plan to register for it the next time it is offered, or you can consult with your advisor about an alternative course.

19. What if the second course in a sequence is not offered during the semester in which I want to take it?
You or your advisor can check with the department offering the course to see when it will next be offered and adjust your overall course plans accordingly.

20. May I take additional CLE courses, even if I have completed the requirements?
Yes, your college may require some CLE courses in addition to the ones necessary to satisfy the requirements. You may also choose to take some additional CLE courses as electives. Your advisor can tell you how additional CLE courses would count toward your degree.

21. Does the university have a foreign language requirement?
Yes, the foreign language requirement is described in the Undergraduate Catalog. Requirements vary by college or department. Consult with your advisor.

22. Can some CLE requirements be fulfilled through study-abroad programs?
Yes, the university has a Center for European Studies and Architecture near Lugano, Switzerland, and many other study-abroad opportunities. Check with your advisor to determine if your college or department offers study-abroad programs that carry CLE credit.

23. What are "Depth Studies"?
Most colleges require students to complete an approved two-course combination in one or two areas of the CLE. In other areas students are allowed to choose 2 courses from among any of the approved CLE courses. Check with your advisor or an academic dean about specific requirements for your college.

24. Can CLE courses count toward more than one area simultaneously?
Generally, no. While there are some courses which do meet requirements in more than one area, they can only count toward one CLE area at a time. The only exception to this rule is that some Area 7 courses may simultaneously fulfill the requirements of another area in addition to Area 7. Courses approved for CLE Areas 2-7 may also fulfill the Writing Intensive requirement if so indicated.

Area 1: Writing and Discourse

6 credit hours (2 courses) selected from first-year writing courses
Students should consult with an advisor.

Goals for students in Area 1:

1. Understand the use of words as basic tools of thought;
2. Engage in defining, developing, and understanding ideas through the process of writing;
3. Understand modes of verbal discourse that are central to college-level academic work, such as argument, interpretation, analysis, and metaphor;
4. Develop clear and effective prose through attention to style, grammar, and other elements of composition;
5. Engage in planning, inventing, editing, and revising as elements of the writing process;
6. Read texts and write analytical and interpretive prose as a reciprocal means of expanding powers of understanding and imagination; and
7. Participate in verbal discussion of texts and ideas as an essential element of discourse and communication.

Area 1 requirements reflect the centrality of discourse in the larger intellectual community. Our first-year writing courses introduce students to the interrelated and shared modes of verbal communication that are distinctive to college life — argument, interpretation, analysis, and metaphor — and whose various usages substantially delineate what it means to become broadly educated. These beginning courses should be thought of as the springboard for further writing and discourse throughout the undergraduate curriculum, especially in the disciplinary concentration.

In order to enable students to meet the aims of both liberal education and of professional preparation, we include writing in many courses throughout the university, even if it may not be the main intellectual capacity emphasized in the course. Students are encouraged to seek out courses that offer frequent opportunities for writing and related forms of discourse, both for the enhanced learning these courses can offer and for their benefit in terms of professional preparation. Many courses in the Curriculum for Liberal Education build upon the writing and verbal skills that are the direct goal of Area 1 by including a significant writing component and by encouraging the achievement of excellence in communicating ideas and knowledge.

Students may meet the first-year writing requirement in <u>one</u> of three ways:

1. By successful completion of the two-semester sequence, ENGL 1105-1106 <u>or</u> COMM 1015-1016 (Note: COMM courses are limited. No advanced placement credit will be given for COMM courses. Student must take both COMM courses to satisfy Area 1;
2. By successful completion of ENGL 1106 for students who are awarded Advanced Standing (based on standardized test scores and high school class rank) and are placed in ENGL 1106. Advanced Standing students who complete ENGL 1106 at Virginia Tech in the first enrollment with a C- or better receive Advanced Standing credit for ENGL 1105;
3. By successful completion of 1204H for students who meet University Honors Standards or English Department Honors Standards. Honors students who successfully complete ENGL 1204H at Virginia Tech in the first enrollment with a C- or better receive Advanced Standing credit for ENGL 1105.

In addition, Virginia Tech accepts ETS Advanced Placement credit for the Freshman Writing sequence.

Area 2: Ideas, Cultural Traditions, and Values

6 credit hours (2 courses) selected from approved CLE courses

Goals for students in Area 2:

1. Examine some of the formative ideas and cultural traditions that have shaped Western experience;
2. Study classic and contemporary texts that have influenced or exemplified currents in Western thought and imagination;
3. Gain an understanding of some aspects of human achievement and experience that have been persistently overlooked in mainstream Western culture, including those of women, minorities, and non-Western peoples;
4. Analyze creative works of various mediums in both the arts and technology from the viewpoints of cultural meanings and influence;
5. Gain acquaintance with historical traditions and with humanistic methods of studying and interpreting them;
6. Consider the contributions of philosophical, ethical, or religious systems to human life;
7. Recognize how the interaction of tradition and innovation nourishes both individuality and community;
8. Gain critical and appreciative perspective upon one's own culture by studying other historical periods and other cultural traditions;
9. Study the life, thought, and creative activity of men and women of achievement in various fields of human endeavor.

Every student should be introduced to some of the ideas, cultural traditions, and values that have shaped the human world we now inhabit. An educated person sees the present in connection with the past, and understands that presently prevailing values and meanings derive from the creative thought and action of men and women who have preceded us. A study of influential texts, ideas, representative works of art and technology, and the development of cultural traditions begins to free the student from the superficial fads of the moment and from narrow provincialisms. By examining some of the enduring ideas about human nature and achievement past and present, the individual gains a greater degree of self-knowledge and is better able to formulate worthwhile aims and commitments.

Courses in this curricular area take the human condition and human values as their main focus, while dealing with a range of subject matters: philosophy, literature and communication, history, religion, the arts, and technology. Most of these courses deal with some aspect of Western cultural experience in its numerous varieties. Relatively neglected dimensions of this experience such as the experience of women and minorities will be acknowledged and dealt with, both as an integral aspect of many existing courses and in separate courses which focus directly upon these dimensions. The foreign language courses approved for Area 2 explore the literatures of other countries in their cultural contexts. Moreover, since we are living in an increasingly global cultural context, courses are included that introduce the student to formative non-Western ideas, arts, and traditions as well.

All of the following courses are approved for the Curriculum for Liberal Education for Area 2. If your college requires "depth studies" in this Area, you may choose one of the course combinations listed on page 25, or courses in a sequence (course number ending with 5 and 6; for example ART 2385 and ART 2386). Colleges may also recommend particular combinations of courses (see page 25). Sequenced courses may be taken individually, unless listed together on one line. **Some courses noted in this section can be counted for Area 6 credit; remember that they CANNOT be used to count for BOTH Area 2 and Area 6 for an individual student.**

Some of these courses are not offered every term. Check the catalog and timetable for relevant offerings.

Africana Studies:
AFST 1714 Black Studies
AFST 1814 Introduction to African Studies (cross-listed with IDST 1814) (also in Area 7)

Agricultural and Applied Economics:
AAEC 2244 Food and Clothing: Cultural Traditions, Conflicts and Possibilities (cross-listed with AHRM 2244)
AAEC 2424 Cooperatives and their Impact on the Human Condition

American Indian Studies:
AINS 1104 Introduction to American Indian Studies (cross-listed with HUM 1104)

Apparel, Housing and Resource Management:
AHRM 2244 Food and Clothing: Cultural Traditions, Conflicts and Possibilities (cross-listed with AAEC 2244)

Architecture:
ARCH 3115 History of Architecture I (also in Area 6)
ARCH 3116 History of Architecture II (also in Area 6)

*Art: (Note: **All Art classes below are also in Area 6**)*
ART 2385 Survey of the History of Western Art I
ART 2386 Survey of the History of Western Art II
ART 3084 Greek Arts and Architecture (Pre: ART 2385)
ART 3184 Roman Art and Architecture (Pre: ART 2385)
ART 3284 Medieval Art and Architecture (Pre: ART 2385)

ART 3384 Italian Renaissance Art and Architecture (WI) (Pre: ART 2386)
ART 3484 Baroque and Rococo Art and Architecture (Pre: ART 2386)
ART 3584 Nineteenth Century Art: Neo-classicism to Post-Impressionism (Pre: ART 2386)
ART 3884 American Art to 1914 (WI) (Pre: ART 2386)

Building Construction:
BC 3115 Building Culture, a History of Construction I
BC 3116 Building Culture, a History of Construction II (also in Area 6)

Classics:
CLA 2444 Ancient Greek and Roman Mythology (cross-listed with ENGL 2444 and HUM 2444)
CLA 2454 Ancient Greek and Latin Literature in English Translation (cross-listed with ENGL 2454 and HUM 2454)

Communication:
COMM 2064 The Rhetorical Tradition

English: (prior completion of the Freshman English sequence is required)
ENGL 1604 Introduction to Poetry (also in Area 6)
ENGL 1614 Introduction to Short Fiction (also in Area 6)
ENGL 1624 Introduction to Detective Fiction
ENGL 1634 Intro. to Shakespeare (also in Area 6)
ENGL 1644 Intro. to World Literature (also in Area 7)
ENGL 1654 Intro. to Science Fiction and Fantasy
ENGL 1664 Intro. to Women's Literature
ENGL 1674 Intro. to African American Literature
ENGL 1684 Introduction to Drama
ENGL 2444 Ancient Greek and Roman Mythology (cross-listed with CLA 2444 and HUM 2444)
ENGL 2454 Ancient Greek and Latin Literature in English Translation (cross-listed with CLA 2454 and HUM 2454)
ENGL 2515 Survey of British Literature (Pre: ENGL 1106 or 1204H or COMM 1016)
ENGL 2516 Survey of British Literature (Pre: ENGL 1106 or 1204H or COMM 1016)
ENGL 2525 Survey of American Literature (Pre: ENGL 1106 or 1204H or COMM 1016)
ENGL 2526 Survey of American Literature (Pre: ENGL 1106 or 1204H or COMM 1016)
ENGL 3404 French Literature in English Translation (cross-listed with FR 3404)
ENGL 3414 German Literature in English Translation (cross-listed with GER 3414)
ENGL 3424 Russian Literature in English Translation (cross-listed with RUS 3424)
ENGL 3434 Hispanic Literature in English Translation (cross-listed with SPAN 3434)
ENGL 3534 Literature and Ecology (WI) (Pre: ENGL 1106 or 1204H) (also in Area 7)
ENGL 3644 Postcolonial Cultural Studies (Pre: ENGL 1106 or 1204H) (also in Area 7)
ENGL 4165 Shakespeare I
ENGL 4166 Shakespeare II

Foreign Languages:
Courses taught in the foreign language: (Pre: 2106 in the language)
FR 3205 French Culture and Civilization I
FR 3206 French Culture and Civilization II
FR 3305 Survey of French Literature I (Pre: FR 3304)
FR 3306 Survey of French Literature II (Pre: FR 3304)
GER 3305 Intro. to German Literature I (Pre: GER 3304)
GER 3306 Intro. to German Literature II (Pre: GER 3304)

Courses taught in English:
FR 2714 Intro. to French Culture and Civilization (cross-listed with HUM 2714)
FR 3404 French Literature in English Translation (cross-listed with ENGL 3404) (Pre: 2000 level ENGL course)
GER 2724 Intro. to German Culture and Civilization (cross-listed with HUM 2724)
GER 3414 German Literature in English Translation (cross-listed with ENGL 3414) (Pre: 2000 level ENGL course)
RUS 2734 Intro. to Russian Culture and Civilization (cross-listed with HUM 2734) (also in Area 7)
RUS 3424 Russian Literature in English Translation (cross-listed with ENGL 3424) (Pre: 2000 level ENGL course)
SPAN 2744 Intro. to Spanish Culture and Civilization (cross-listed with HUM 2744)
SPAN 2754 Intro. to Spanish-American Culture and Civilization (cross-listed with HUM 2754)
SPAN 3404 Early Peninsular Culture and Literature (Pre: SPAN 3304)
SPAN 3414 Modern Peninsular Culture and Literature (Pre: SPAN 3304)
SPAN 3434 Hispanic Literature in English Translation (cross-listed with ENGL 3434) (Pre: 2000 level ENGL course)
SPAN 3444 Early Spanish-American Culture and Literature (Pre: SPAN 3304)
SPAN 3454 Modern Spanish-American Culture and Literature (Pre: SPAN 3304)

Forestry:
FOR 2554 Nature and American Values

History:
HIST 1024 Ancient History
HIST 1025 Intro. to European Civilization I
HIST 1026 Intro. to European Civilization II
HIST 2054 Engineering Cultures (cross-listed with STS 2054) (also in Area 7)

Horticulture:
HORT 3524 History of Landscape Architecture (Pre: junior standing)

Humanities:
HUM 1104 Intro to American Indian Studies (cross-listed with AINS 1104)
HUM 1114 Intro. Humanities: The Classical Age
HUM 1124 Intro. Humanities: The Roman World and Early Christianity
HUM 1214 Intro. Humanities: The Medieval World
HUM 1224 Intro. Humanities: The Renaissance
HUM 1314 Intro. Humanities: Enlightenment & Romanticism
HUM 1324 Intro. Humanities: The Modern World

HUM 1604 Intro. to Humanities and the Arts
HUM 1704 Intro. to Appalachian Studies
HUM 1914 Explorations in Traditional Asian Cultures
HUM 1924 Explorations in Modern Asian Cultures
HUM 2204 Humanities and the Arts: The Creative Process
HUM 2444 Ancient Greek and Roman Mythology (cross-listed with ENGL 2444 and CLA 2444)
HUM 2454 Ancient Greek and Latin Literature in English Translation (cross-listed with ENGL 2454 and CLA 2454)
HUM 2714 Intro. to French Culture and Civilization (cross-listed with FR 2714)
HUM 2724 Intro. to German Culture and Civilization (cross-listed with GER 2724)
HUM 2734 Intro. to Russian Culture and Civilization (cross-listed with RUS 2734) (also in Area 7)
HUM 2744 Intro. to Spanish Culture and Civilization (cross-listed with SPAN 2744)
HUM 2754 Intro. to Spanish-American Culture and Civilization (cross-listed with SPAN 2754)
HUM 4404 Appalachian Folk Culture

Interior Design:
ITDS 1114 Design Appreciation (3 cr.) (also in Area 6)

Judaic Studies:
JUD 2414 Hebrew Bible/Old Testament (cross-listed with REL 2414)

Landscape Architecture:
LAR 4034 Evolution of the American Landscape (WI)

Leadership:
LDRS 1015 Exploring Citizen Leadership: Contexts and Competencies

Music:
MUS 1005 Theory/Fundamentals I
MUS 1006 Theory/Fundamentals II
MUS 1104 Music Appreciation (also in Area 6)
MUS 2115 Survey of Music I (also in Area 6)
MUS 2116 Survey of Music II (also in Area 6)
MUS 3115 Music in America I (also in Area 6)
MUS 3116 Music in America II (also in Area 6)

Philosophy:
PHIL 1204 Knowledge and Reality
PHIL 1304 Morality and Justice
PHIL 2115 Ancient through Medieval Philosophy I
PHIL 2116 Ancient through Medieval Philosophy II
PHIL 2125 History of Modern Philosophy I
PHIL 2126 History of Modern Philosophy II
PHIL 2304 Global Ethics (also in Area 7)
PHIL 2605 Reason and Revolution in Science I
PHIL 2606 Reason and Revolution in Science II
PHIL 3015 Political Theory I (cross-listed with PSCI 3015) (Pre: PSCI 1024)
PHIL 3016 Political Theory II (cross-listed with PSCI 3016) (Pre: PSCI 1024)
PHIL 3314 Ethical Theory (Pre: 3 cr. in PHIL)
PHIL 3454 Philosophy of Religion
PHIL 4204 Philosophy of Mind (WI) (Pre: 3 cr. in PHIL)
PHIL 4214 Metaphysics (WI) (Pre: 3 cr. in PHIL)
PHIL 4224 Epistemology (WI) (Pre: 3 cr. in PHIL)
PHIL 4304 Topics in Social and Political Philosophy (Pre: 3 cr. in PHIL)
PHIL 4334 Jurisprudence (WI) (Pre: 3 cr. in PHIL)
PHIL 4614 Philosophy of Science (WI) (Pre: 1-year science, 3 cr. in PHIL)

Political Science:
PSCI 3015 Political Theory I (cross-listed with PHIL 3015) (Pre: PSCI 1024)
PSCI 3016 Political Theory II (cross-listed with PHIL 3016) (Pre: PSCI 1024)

Religion:
REL 1014 Asian Religions
REL 1024 Judaism, Christianity, Islam (also in Area 7)
REL 1034 Religion and the Modern World
REL 1044 Religious Ethics
REL 2124 Religion in American Life
REL 2234 Women, Ethics and Religion (cross-listed with WS 2234) (also in Area 7)
REL 2414 Hebrew Bible / Old Testament (cross-listed with JUD 2414)
REL 2424 New Testament
REL 3024 Religion and Literature
REL 3214 Religion and Culture in India
REL 3224 Religions of China and Japan
REL 3414 Jesus and the Gospels (Pre: REL 2414 or 2424)
REL 3424 Paul and His Interpreters (Pre: REL 2414 or 2424)

Science and Technology in Society:
STS 1504 Intro. to Humanities, Science, and Technology
STS 2054 Engineering Cultures (cross-listed with HIST 2054) (also in Area 7)
STS 2154 Humanities, Technology, and Life Sciences
STS 2354 Humanities, Technology, and Physical Sciences
STS 3105 Science and Technology in Modern Society
STS 4304 Contemporary Issues in Humanities, Sciences, and Technology

Sociology:
SOC 2024 Minority Group Relations (ONLY in combination with AFST 1714)

Teaching and Learning:
EDPE 3114 20th Century Dance

Theatre Arts:
TA 2014 Introduction to Theatre (also in Area 6)
TA 2024 Introduction to Acting (also in Area 6)

Urban Affairs and Planning:
UAP 4264 Environmental Ethics and Policy (WI)

Women's Studies:
WS 1824 Introduction to Women's Studies
WS 2224 Women and Creativity
WS 2244 Women and Science (WI) (Pre: WS 1824)
WS 2254 Feminist Activism (Pre: WS 1824)

Area 3: Society and Human Behavior

6 credit hours (2 courses) selected from approved CLE courses

Goals for students in Area 3:

1. Examine distinctive quantitative and qualitative modes of inquiry appropriate to the scientific study of societal institutions, patterns of culture, and human behavior;
2. Understand specific patterns and processes that affect the organization of society and the relationship between the individual and society;
3. Investigate institutions, systems, and ideologies in the realms of government, family, community, economy, education, science, religion, and other dimensions of culture;
4. Investigate human psychological and developmental processes through quantitative and qualitative methodologies;
5. Compare alternative theories about human society, culture, and behavior;
6. Examine patterns that involve inclusion and exclusion pertaining to race, class, community, gender and ethnic identity, and other forms of social grouping.

Human beings are not only participants in the world of human culture; we are also observers of it. The cultivation of systematic approaches to the study of humanity is one of the great achievements of the human intellect. Every student should therefore be introduced to the sciences of society and human behavior, a goal that can be accomplished through several avenues: through the study of psychology; through the study of social structures such as government, family, community, or economy; or through more wide-ranging examination of social patterns and processes. Such studies may examine past as well as present, non-Western as well as Western societies.

Courses in this curricular area are best characterized by their methods of study and theoretical frameworks. They look for regularities in human behavior rather than giving primary attention to the unique or non-repeatable aspects of life. When varied human values and allegiances nevertheless make their appearance within these disciplines, they do so more as objects to be investigated than as commitments to be honored.

All of the following courses are approved for the Curriculum for Liberal Education for Area 3. If your college requires "depth studies" in this Area, you may choose one of the course combinations listed on page 25, or courses in sequence (course number ending with 5 and 6; for example, AAEC 1005 and 1006). Colleges may also recommend particular combinations of courses (see page 25). Sequenced courses may be taken individually, unless listed together on one line.

Some of these courses are not offered every term. Check the catalog and timetable for relevant offerings.

Agricultural and Applied Economics:
AAEC 1005 Economics of the Food & Fiber System I
AAEC 1006 Economics of the Food & Fiber System II
(Pre: AAEC 1005)
AAEC 1014 Survey of American Economic History
(cross-listed with HIST 1014)

Aerospace Studies:
AS 3215 Air Force Management & Leadership
(Pre: AS 2116 or Instructor Consent)

Communication:
COMM 1014 Introduction to Communication Studies

Economics:
ECON 2005 Principles of Economics (micro)
ECON 2006 Principles of Economics (macro)
(Pre: ECON 2005)
ECON 2025H – 2026H Honors Principles of Economics

Geography:
GEOG 1004 Introduction to Human Geography
GEOG 1014 World Regions (Pre: GEOG 1004) (also in Area 7)
GEOG 2054 Introduction to World Politics
(cross-listed with PSCI 2054 and IS 2054) (also in Area 7)

History:
HIST 1004 Intro. to the History of the United States
HIST 1014 Survey of American Economic History
(cross-listed with AAEC 1014)
HIST 1115 History of the United States I
HIST 1116 History of the United States II
HIST 2104H Critical Issues in American History (WI)
(Pre: Honors Status or permission from instructor)
HIST 3155 History of American Cities I
HIST 3156 History of American Cities II
HIST 3505 European Diplomatic History I
HIST 3506 European Diplomatic History II
HIST 3705 History of Science I (cross-listed with STS 3705)
HIST 3706 History of Science II (cross-listed with STS 3706)

Hospitality and Tourism Management:
HTM 3484 Socio-Cultural Impacts of Tourism

Human Development:
HD 1004 Human Development I: Childhood and Adolescence
HD 2004 Human Development II: Adulthood and Aging

International Studies:
IS 2054 Introduction to World Politics (cross-listed with PSCI 2054 and GEOG 2054) (also in Area 7)
IS 2064 The Global Economy and World Politics (cross-listed with PSCI 2064) (also in Area 7)

Leadership:
LDRS 1016 Exploring Citizen Leadership: Communities of Praxis

Naval Science:
MN 4005 Leadership and Management

Political Science:
PSCI 1004 Nations and Nationalities (cross-listed with SPIA 1004) (also in Area 7)
PSCI 1014 Intro. to US Government and Politics
PSCI 1024 Intro. to Comparative Government and Politics (also in Area 7)
PSCI 2054 Introduction to World Politics (cross listed with IS 2054 and GEOG 2054) (also in Area 7)
PSCI 2064 The Global Economy and World Politics (cross-listed with IS 2064) (also in Area 7)

Psychology:
PSYC 2004 Introductory Psychology
PSYC 2034 Developmental Psychology (Pre: PSYC 2004)
PSYC 2044 Psychology of Learning (Pre: PSYC 2004)
PSYC 2054 Psychology of Personality (Pre: PSYC 2004)
PSYC 2064 Nervous Systems and Behavior (Pre: PSYC 2004)
PSYC 2084 Social Psychology (Pre: PSYC 2004)
PSYC 3014 Abnormal Psychology (Pre: PSYC 2004)

Science and Technology in Society:
STS 3705 History of Science I (cross-listed with HIST 3705)
STS 3706 History of Science II (cross-listed with HIST 3706)
STS 4704 Gender and Science (cross-listed with WS 4704) WI)

Sociology:
SOC 1004 Introductory Sociology
SOC 1014 Introduction to Social Anthropology
SOC 2004 Social Problems
SOC 2014 Dating, Marriage, and Divorce
SOC 2024 Minority Group Relations
SOC 2304 Individual in Society
SOC 2504 Comparative Social Change
SOC 3004 Social Organization and Stratification (Pre: SOC 1004)
SOC 3304 Collective Action (Pre: SOC 1004)
SOC 3504 Population Trends and Issues
SOC 3604 Work in Modern Society
SOC 4304 Small Groups (Pre: SOC 2304)

School of Public and International Affairs:
SPIA 1004 Nations and Nationalities (cross-listed with PSCI 1004) (also in Area 7)

Urban Affairs and Planning:
UAP 1024 Public Issues in an Urban Society
UAP 2014 Urbanization and Development
UAP 2024 World Cities
UAP 3014 Urban Policy and Planning (WI)
UAP 3894 World Poverty/Hunger in Urban Regional Context

Women's Studies:
WS 2264 Race, Class and Gender (Pre: WS 1824)
WS 4704 Gender and Science (cross-listed with STS 4704) (WI)

Area 4: Scientific Reasoning and Discovery

6 credit hours of lecture (2 courses)

***Some majors require an additional 2 credit hours of related laboratory (2 labs) selected from approved CLE courses

*****The University Provost has implemented an administrative change to Area 4 of the Curriculum for Liberal Education, due to budget priorities and insufficient resources for basic science laboratory courses. The University Provost has approved the following, effective June 24, 2003 for all students entering Fall 2003 and thereafter: Waiver of the 2 credit hours of related laboratory courses as stated in Area 4 for those departments that do not wish to require a laboratory component. NOTE: this waiver does not eliminate any credit from the total required for graduation for each major. The 2 credit hours eliminated from Area 4 must be made up as free electives. Students should consult with their advisor about CLE Area 4 requirements in their specific college or department.*****

Goals for students in Area 4:

1. Describe the methods of inquiry that lead to scientific knowledge and be able to distinguish science from pseudoscience;
2. Evaluate the credibility of, use, and misuse of scientific information;
3. Recognize how science is self-correcting through formulation of hypotheses, testing of these hypotheses by carefully designed experiment or by observation, and by appropriate modification of hypotheses;
4. Given a theory or model, make predictions about the results of an experiment or observational study, observe the outcomes, and compare the predictions with the outcomes. Recognize how to reason scientifically, how to make appropriate assumptions, and how to use scientific methods and tools to solve basic problems within natural science;
5. Organize scientific information and data into trends and patterns using spatial, graphical, symbolic, and numerical methods to sort, analyze, and interpret natural phenomena;
6. Communicate effectively the results of a set of scientific experiments or observations;
7. Provide examples of the interdependence between social or ethical issues and developments in science and technology;
8. Give examples of the roles of diverse individuals and approaches in advancing scientific knowledge.

For many students at Virginia Tech, acquiring detailed knowledge of one or more of the natural sciences is essential. But for all students, a liberal education involves the study of what science is, of how it can be conducted, of what it can and cannot tell us about the world. Without scientific study and the experience offered by a laboratory, students perceive only vaguely how and why science functions as a crucial standard for knowledge and inquiry in modern life. The study of a science engages the student in analysis and deduction as well as empirical experimentation — that is, in scientific reasoning and discovery.

The impact of the natural sciences and technology on our globally interdependent world is one of the most important realities we face as we enter the 21st century. The science courses in the CLE have a special role in educating students about the critical relevance of scientific knowledge to the potentialities and dilemmas of our natural and social environments. All of the following courses are approved for the CLE for Area 4. If your college requires "depth studies" in this Area, you may choose one of the course combinations listed on page 25, or courses in a sequence (course numbers ending with 5 and 6; for example, BIOL 1005 + 1015 and 1006 + 1016). Colleges may also recommend particular combinations of courses (see page 25). Sequenced courses may be taken individually, unless listed together on one line. Lab courses are linked to lecture-discussion courses.

Some of these courses are not offered every term. Check the catalog and timetable for relevant offerings.

Biology:

BIOL 1005+BIOL 1015 General Biology I and General Biology Lab I

BIOL 1006+BIOL 1016 General Biology II and General Biology Lab II

BIOL 1105+BIOL 1115 Principles of Biology I and Principles of Biology Lab I

BIOL 1106+BIOL 1116 Principles of Biology II and Principles of Biology Lab II

BIOL 1205H Honors Biology I (includes lab) (WI)

BIOL 1206H Honors Biology II (includes lab) (WI)

Chemistry:

CHEM 1015+CHEM 1025 Introduction to Chemistry I and Introduction to Chemistry Lab

CHEM 1016+CHEM 1026 Introduction to Chemistry II and Introduction to Chemistry Lab (Pre: CHEM 1015+1025)

CHEM 1035+CHEM 1045 General Chemistry I and General Chemistry Lab

CHEM 1036+CHEM 1046 General Chemistry II and General Chemistry II Lab (Pre: CHEM 1035+1045)

CHEM 1074+CHEM 1084 General Chemistry for Engineers and General Chemistry Lab for Engineers

CHEM 1074H+CHEM 1084 General Chemistry for Engineers and General Chemistry Lab for Engineers

Geosciences:

GEOS 1004 + GEOS 1104 Physical Geology and Physical Geology Laboratory

GEOS 1014 The Earth and Life Through Time (includes lab)

GEOS 1024 + GEOS 1124 Resources Geology and the Environment and Resources Geology Laboratory (GEOS 1024 also in Area 7)

Physics:

PHYS 1055 + PHYS 1155 Introduction to Astronomy I and Astronomy Lab

PHYS 1056 + PHYS 1156 Introduction to Astronomy II and Astronomy Lab (Pre: PHYS 1055+1155)

PHYS 2205 + PHYS 2215 General Physics I and Physics Lab (Pre: MATH 1016)

PHYS 2206 + PHYS 2216 General Physics II and Physics Lab

PHYS 2305 Foundations of Physics I (part 1) (includes lab)

PHYS 2306 Foundations of Physics I (part 2) (includes lab)

Area 5: Quantitative and Symbolic Reasoning

6 credit hours (2 courses) selected from approved CLE courses

Goals for students in Area 5:

1. Increase basic competence in quantitative reasoning and problem solving, starting at an appropriate entry level;
2. Understand some fundamental principles of reasoning that are involved in mathematics or logic;
3. Understand quantitative and symbolic reasoning through the study of significant applications of mathematical sciences.

Like writing, mathematics is essential to intellectual inquiry in many areas. It is a basic language of the natural and social sciences and has become a useful tool for research in the humanities. The technological uses of mathematics and related forms of symbolic analysis are of tremendous significance to human society. Furthermore, the history of quantitative and symbolic reasoning as an intellectual discipline is linked with philosophy, the arts, and other aspects of human culture. Thus, a broad education must include these forms of reasoning, both as skills and as central modes of thought. Mathematics, statistics, and certain areas of computer science and philosophy can all contribute to broadening a student's knowledge of quantitative and symbolic reasoning.

A diagnostic formula and testing procedure has been derived to predict readiness for Engineering/Science Calculus at Virginia Tech. A purpose of MATH 1015 is to serve those students who need further preparation. You can obtain information about the math diagnostic test from your advisor.

Many departments throughout the university have specific math sequence requirements. Be sure to check with your advisor about the requirements for your program.

All of the following courses are approved for the Curriculum for Liberal Education for Area 5. If your college requires "depth studies" in this Area, you may choose one of the course combinations listed on page 25, or courses in sequence (course number ending with 5 or 6; for example, MATH 1015 and 1016). Colleges may also recommend particular combinations of courses (see page 25).

Some of these courses are not offered every term. Check the catalog and timetable for relevant offerings.

Computer Science:
CS 1044 Introduction to Programming in C

Mathematical Sciences:
MASC 1024 Mathematics: A Liberal Arts Approach
MASC 1034 Statistics: A Liberal Arts Approach
MASC 1044 Computer Science: A Liberal Arts Approach

Mathematics:
MATH 1015-MATH 1016 Elementary Calculus with Trigonometry, I
MATH 1205–MATH 1206 Calculus I and II
MATH 1525–MATH 1526 Elementary Calculus with Matrices I and II
MATH 1535–MATH 1536 Geometry and Mathematics of Design
MATH 2015–MATH 2016 Elementary Calculus with Trigonometry, II (Pre: MATH 1016)

MATH 2524 Matrices, Modeling and Linear Programming (Pre: MATH 1016 or MATH 1205 or MATH 1526)

Philosophy:
PHIL 1504 Language and Logic
PHIL 3505–3506 Modern Logic and Its Development

Statistics:
STAT 2004 Introduction to Statistics (Pre: MATH 1015)

STAT 3005 Statistical Methods (Pre: MATH 1206)
STAT 3604 Statistics for the Social Sciences (Pre: MATH 1015)
STAT 3615 Biological Statistics

Area 6: Creativity and Aesthetic Experience

1 or 3 credit hours from approved CLE courses
(Students in the College of Science and most majors in the College of Liberal Arts and Human Sciences must take one (1) 3-credit hour course. Students should consult with their advisors about specific college or departmental requirements)

Goals for students in Area 6:

1. Participate in cultural events and activities on campus, in both popular and classical arts;
2. Understand how the artists or designers who produce these events and works have shaped their ideas;
3. Examine intuitive and metaphorical thought processes and their relationship to the human imagination and other intellectual abilities;
4. Explore the interaction of art and society, including the contributions of diverse groups to cultural life, such as women and members of minority groups;
5. Study selected classic works of fine and applied arts;
6. Participate in interpretive discussions, lectures, and demonstrations led by artists, designers, architects, musicians, and/or performers;
7. Explore connections between the arts and other forms of design and creativity.

The arts contribute significantly both to the experience and the interpretation of human life. Creativity and aesthetic response criss-cross the boundaries among intellectual ideas, the imagination, and actual design. Moreover, the arts are always intimately linked with the material culture of a society — its modes of production and design — as well as with its values and ideas. Thus, the arts can be studied and experienced in a variety of ways: as "high culture," as a means of tracing the history and ideas of particular societies, and as an active process of creative design and expression in many different physical forms. The metaphorical and intuitive thought processes that are essential to making and experiencing works of art are woven into many other human cultural and creative activities. Thus, the arts have an important role to play in broadening our aesthetic and intellectual sensibilities. Most artistic media include a highly public dimension — concerts, exhibitions, performances, publications, public installations, and the built environment — in which the creative works of artists, designers, and their collaborators are accepted or contested as meaningful elements of the larger social fabric. A guided exposure to the arts can provide a valuable framework for continued appreciation of, and participation in, the arts beyond college.

All of the following courses are approved for the Curriculum for Liberal Education for Area 6. **Courses marked with an asterisk are also listed in Area 2; remember that they CANNOT be used to count for BOTH Area 2 and Area 6 for an individual student. College of Science majors must choose one 3 credit hour course. Most majors in the College of Liberal Arts and Human Sciences must choose one 3 credit hour course.**

Agriculture and Life Sciences:
ALS 1004 Agriculture, The Arts, and Society (1 cr.)

Apparel, Housing, and Resource Management:
AHRM 2254 Idea Development and Creativity in Apparel Design (3 cr.)

Architecture:
ARCH 1015 Foundation Design Laboratory (3 cr.) (for ARCH majors only)
*ARCH 3115 History of Architecture I (3 cr.)
*ARCH 3116 History of Architecture II (3 cr.)

Art and Art History:
ART 1004 Experiencing the Visual Arts (1 cr.)
ART 1114 Living with Art and Design (3 cr.)
*ART 2385 Survey of the History of Western Art I (3 cr.)
*ART 2386 Survey of the History of Western Art II (3 cr.)
*ART 3084 Greek Arts and Architecture (3 cr.) (Pre: ART 2385)
*ART 3184 Roman Art and Architecture (3 cr.) (Pre: ART 2385)
*ART 3284 Medieval Art and Architecture (3 cr.) (Pre: ART 2385)
*ART 3384 Italian Renaissance Art and Architecture (3 cr.) (WI) (Pre: ART 2386)
*ART 3484 Baroque and Rococo Art and Architecture (3 cr.) (Pre: ART 2386)
*ART 3584 Nineteenth Century Art: Neo-classicism to Post-Impressionism (3 cr.) (Pre: ART 2386)
*ART 3884 American Art to 1914 (3 cr.) (WI) (Pre: ART 2386)

Building Construction:
*BC 3116 Building Culture, a History of Construction II

Communication:
COMM 2054 Introduction to Film (3 cr.) (Pre: sophomore standing)

English:
*ENGL 1604 Introduction to Poetry (3 cr.)
*ENGL 1614 Introduction to Short Fiction (3 cr.)
*ENGL 1634 Intro. to Shakespeare (3 cr.)
ENGL 2744 Intro. to Creative Writing (Pre: ENGL 1106) (3 cr.)

Teaching and Learning:
EDPE 2204 Creative Dance (3 cr.)

Fine Arts:
FA 2004 Creativity and Aesthetic Experience (1 cr.)

Horticulture:
HORT 2164 Floral Design (3 cr.)

Humanities:
HUM 2214 Experiences in the Arts (1 cr.)

Interior Design:
ITDS 1114 Design Appreciation (3 cr.)

Landscape Architecture:
LAR 1144 Introduction to Landscape Architecture (1 cr.)
Music:
*MUS 1104 Music Appreciation (3 cr.)
*MUS 2115 Survey of Music I (3 cr.)
*MUS 2116 Survey of Music II (3 cr.)
*MUS 3115 Music in America I (3 cr.)
*MUS 3116 Music in America II (3 cr.)
MUS 3314 Instrumental Ensemble Music (1 cr.)
(Pre: consent of instructor)
MUS 3414 Choral Ensemble Music (1 cr.)
(Pre: consent of instructor)

Theatre Arts:
*TA 2014 Introduction to Theatre (3 cr.)
*TA 2024 Introduction to Acting (3 cr.)

* indicates in Area 2 also

Area 7: Critical Issues in a Global Context

3 credit hours (1 course) selected from approved CLE courses

Goals for students in Area 7:
Goals 1–4 apply to all courses in Area 7. The remaining goals are addressed to varying degrees, depending on the content of the course.

1. Examine an issue or a group of related issues whose influence on contemporary life extends beyond the boundaries of the United States and significantly involves other societies, cultures, and geographical locations;
2. Develop an informed understanding of the context of the critical issues under study, including relevant historical, technological, cultural, and/or scientific factors;
3. Learn how to interpret and evaluate controversial issues of the day from several distinctive and differing points of view, using appropriate information from varied sources;
4. Relate contemporary events at home and abroad to the subject matter of the course;
5. Gain an informed understanding of the crucial national and international role played by technology with respect to selected critical issues;
6. Examine the root causes and influences of such dynamics as racism, ethnic prejudice, sexism, and other forms of social exclusion;
7. Develop an understanding of the culture, the state of technological and economic development, and the values of a particular society or people outside the United States;
8. Examine the role of ethical thinking and action in relation to issues in such areas as technological development, political policy, the environment, and social and economic patterns.

Global interdependence is a powerful fact of life as we enter the 21st century. The dilemmas and possibilities humankind faces cannot be effectively addressed by any single culture or group of people acting alone. An awareness of critical issues of the day is thus an essential extension of liberal education and prepares students to respond thoughtfully to the complex world in which they live. As a state institution of higher education, Virginia Tech has a responsibility to prepare students to react creatively and constructively to the social, international, intercultural, and environmental challenges that confront the Commonwealth and the world.

The university requires that undergraduates take at least one course that deals in a substantial way with major issues of critical importance for the larger global society. Courses that satisfy this requirement can be taken in any area of the curriculum, including the major, the Curriculum for Liberal Education, or electives. Students may select from a wide range of courses that focus on major international and intercultural issues in contemporary world affairs, including such areas as politics, the management of conflict, the roles of economic competition and cooperation, demographic issues, and the emerging world order. Many science courses in Area 7 examine global issues associated with environmental decline and restoration. Some engineering courses study the role of technology as a major force in shaping the cultural and economic conditions of human societies. Other courses include comparative or cross-disciplinary examinations of cultures, societies, and belief systems, including those of developing countries. Other courses examine the social and personal implications of cultural, racial, and gender-based differences. Whatever the topical focus of the course, all Area 7 courses utilize interdisciplinary approaches in which a number of relevant factors - historical, ethical, technological, cultural, and/or scientific - are brought to bear on the issues being studied.

In many cases, students whose curriculum already emphasizes one of these areas should take a Critical Issues course in another topical area, as a means of broadening their exposure to important issues of the day. **A course taken to satisfy another area of the CLE that is listed within Area 7 will satisfy the Area 7 requirement simultaneously.**

All of the following courses are approved for the Curriculum for Liberal Education for Area 7. Indications are listed with each course if it is also an approved course for another area of the CLE. Area 7 courses may also fulfill requirements in majors, minors, or college curricula.

Some of these courses are not offered every term. Check the catalog and timetable for relevant offerings.

Africana Studies:
AFST 1814 Introduction to African Studies
(cross-listed with IDST 1814) (also in Area 2)

Agricultural and Applied Economics:
AAEC 2464 Religion and Science
(cross-listed with STS 2464 and REL 2464

AAEC 3204 International Agricultural Development and Trade
(Pre: AAEC 1005, 1006)
AAEC 3314 Environmental Law

Aerospace Studies:
AS 4215 National Security Forces in Contemporary American Society

Apparel, Housing and Resource Management:
AHRM 4604 Housing: Energy and the Environment
(Pre: AHRM 3604)

Biological Systems Engineering:
BSE 4394 Water Supply and Sanitation in Developing Countries

Biology:
BIOL 2204 Plants and Civilization

Civil Engineering:
CEE 3104 Introduction to Environmental Engineering
(Pre: CHEM 1035, 1036, MATH 1205, PHYS 2175)
CEE 4554 Natural Disaster Mitigation and Recovery
(Pre: 3014, 3304, 3404, 3514, 3684)

Communication:
COMM 3204 Multicultural Communication
(cross-listed with HUM 3204)

Crop and Soil Environmental Sciences:
CSES 3444 World Crops and Cropping Systems
(Pre: junior standing)

Economics:
ECON 4124 Growth and Development
(Pre: ECON 2005, 2006)
ECON 4135 International Economics I
(Pre: ECON 2005, 2006)
ECON 4136 International Economics II
(Pre: ECON 3204)

Engineering:
ENGR 1814 Energy, Resource Development and the Environment

English:
ENGL 1644 Intro. to World Literature (also in Area 2)
ENGL 3534 Literature and Ecology (also Area 2) (WI)
(Pre: ENGL 1106 or 1204H)
ENGL 3644 Postcolonial Cultural Studies (also Area 2)
(Pre: ENGL 1106 or 1204H)

Entomology:
ENT 2004 Insects and Human Society

Environmental Science:
ENSC 3604 Fundamentals of Environmental Science

Finance:
FIN 4144 International Financial Management
(Pre: FIN 3104)

Fisheries and Wildlife Sciences:
FIW 2114 Principles of Fisheries and Wildlife Mgmt.
(Pre: BIOL 1006 or 1106)

Forestry:
FOR 2784 World Forests and Forest Products (cross-listed with Wood 2784) (Pre: sophomore standing)
Foreign Languages:
RUS 2734 Russian Culture and Civilization
(cross-listed with HUM 2734) (also in Area 2)

Geography:
GEOG 1014 World Regions (also Area 3)
GEOG 2034 Geography of Global Conflict
GEOG 2054 Introduction to World Politics
(cross-listed with IS 2054 and PSCI 2054) (also in Area 3)
GEOG 2134 Geography of Global Economy
GEOG 3104 Environmental Problems, Population and Development
GEOG 3254 Geography of East Asia
GEOG 4074 Medical Geography (Pre: 3 hours of Geography)
GEOG 4204 Geography of Resources
GEOG 4764 International Development
(cross-listed with SOC 4764 and UAP 4764)
(Pre: junior standing)

Geosciences:
GEOS 1024 Resources Geology and the Environment
(also in Area 4)

History:
HIST 1214 History of the Modern World
HIST 1224 Introduction to Latin America (WI)
HIST 2054 Engineering Cultures (cross-listed with STS 2054)
(also in Area 2)
HIST 2124 Critical Issues in World History
HIST 3184 History of US Foreign Relations
HIST 3394 Europe Since World War II
HIST 3554 Age of Globalization
HIST 3654 The Arab-Israeli Dispute

Hospitality and Tourism Management:
HTM 2454 Travel and Tourism Management

Human Development:
HD 2314 Human Sexuality
Humanities:
HUM 3204 Multicultural Communication
(cross-listed with COMM 3204)
HUM 2734 Intro. to Russian Culture and Civilization
(cross-listed with RUS 2734) (also in Area 2)

Industrial and Systems Engineering:
ISE 4304 Global Issues in Industrial Management

International Studies:
IS 2054 Introduction to World Politics (cross-listed with PSCI 2054 and GEOG 2054) (also in Area 3)
IS 2064 The Global Economy and World Politics
(cross-listed with PSCI 2064) (also in Area 3)
Management:
MGT 4314 International Management
(Pre: ECON 2005-2006 and junior standing)

Marketing:
MKTG 4704 International Marketing
(Pre: MKTG 3104 and junior standing)

Mining and Minerals Engineering:
MINE 3074 History of Mining (Pre: junior standing)

Naval Science:
MN 2104 Seapower and Maritime Affairs

Philosophy:
PHIL 2304 Global Ethics (also in Area 2)

Physics:
PHYS 2074 Highlights of Contemporary Physics

Plant Pathology, Physiology and Weed Science:
PPWS 2004 Mysterious Mushrooms, Malicious Molds
PPWS 2104 Domesticating the Gene
(Pre: BIOL 1005, 1105 or equivalent)

Political Science:
PSCI 1004 Nations and Nationalities (cross-listed with SPIA 1004) (also in Area 3)
PSCI 1024 Introduction to Comparative Government and Politics (also in Area 3)
PSCI 2054 Introduction to World Politics (cross-listed with IS 2054 and GEOG 2054) (also in Area 3)
PSCI 2064 The Global Economy and World Politics (cross-listed with IS 2064) (also in Area 3)

Religion:
REL 1024 Judaism, Christianity, Islam (also in Area 2)
REL 2234 Women, Ethics, and Religion (cross-listed with WS 2234) (also in Area 2)
REL 2464 Religion and Science (cross-listed with AAEC 2464 and STS 2464)
School of Public and International Affairs:
SPIA 1004 Nations and Nationalities (cross-listed with PSCI 1004) (also in Area 3)

Science and Technology in Society:
STS 2054 Engineering Cultures (cross-listed with HIST 2054) (also in Area 2)
STS 2464 Religion and Science (cross-listed with AAEC 2464 and REL 2464)

Sociology:
SOC 3504 Population Trends and Issues
SOC 4764 International Development (cross-listed with GEOG 4764 and UAP 4764) (Pre: junior standing)

Urban Affairs and Planning:
UAP 3344 Global Environmental Issues: Interdisciplinary Perspectives
UAP 3894 World Poverty/Hunger in Urban Regional Context
UAP 4214 Women, Environment and Development in Global Perspective (Pre: UAP 3344 or 3354, or 3000 Level Social Science, or Women's Studies)
UAP 4764 International Development (Pre: junior standing) (cross-listed with GEOG 4764 and SOC 4764)

Women's Studies:
WS 3214 Global Feminisms (Pre: WS 2264)

Wood Science and Forest Products:
WOOD 2784 World Forests and Forest Products (cross-listed with FOR 2784) (Pre: sophomore standing)

Depth Studies Combinations

If your college requires "depth studies" in a particular area, you may choose one of the course combinations listed below, or courses in a sequence (course numbers ending with 5 and 6; for example, AAEC 1005 and AAEC 1006). **Colleges may also recommend particular combinations of courses. It is recommended that you consult with your advisor to determine appropriate course combination for your college.**

Area 2: Ideas, Cultural Traditions, and Values
AFST 1714 and SOC 2024
ART 2385 and 1 of ART 3084, 3184, or 3284
ART 2386 and 1 of ART 3384, 3484, 3584, 3784, or 3884
CLA/ENGL/HUM 2444 and 2454
2 of FR/ENGL 3404, GER/ENGL 3414, RUS/ENGL 3424, or SPAN/ENGL 3434
2 of FR/HUM 2714, GER/HUM 2724, RUS/HUM 2734, SPAN/HUM 2744, or SPAN/HUM 2754
HORT 3524 and LAR 4034
2 of HUM 1114, 1124, 1214, or 1224
HUM 1314 and 1324
STS 1504 and 1 of HUM 1604, STS 2154, or 2354
HUM 1604 and 2204
HUM 1704 and 4404
2 of HUM 1914, HUM 1924, or REL 1014
STS 3105 and 4304
MUS 1104 and 1 of MUS 3115 or 3116
PHIL 1204 and 1304
PHIL 1204 and 1 of PHIL 3454, 4204, 4214, or 4224
PHIL 1304 and 1 of PHIL 3314, 4304, or 4334
REL 1014 and 1 of REL 1024, 3214, or 3224
REL 1024 and REL 2124
REL 2424 and 1 of REL 3414 or 3424
TA 2014 and 2024
WS 1824 and WS 2224

Area 3: Society and Human Behavior
GEOG 1004 and GEOG 1014
PSYC 2004 and SOC 1004
PSYC 2004 and 1 of PSYC 2034, 2044, 2054, 2064, 2084, or 3014
SOC 1004 and 1 of SOC 2004, 2014, 2024, 2304, 3004, or 3304
SOC 1014 and SOC 2504
SOC 2304 and SOC 4304
SOC 3504 and SOC 3604
UAP 1024 and UAP 3014
UAP 2014 and UAP 2024

Area 4: Scientific Reasoning and Discovery
GEOS 1004 & Lab GEOS 1104 and 1 of GEOS 1014 or GEOS 1024 & Lab 1124

Area 5: Quantitative and Symbolic Reasoning
MASC 1024 and 1 of MASC 1034 or 1044
MASC 1044 and 1 of CS 1024 or 1044
MATH 1016 and MATH 2015
1 of MATH 1016 or 1205, and 1 of CS 1024, CS 1044, STAT 2004, STAT 3005, STAT 3604, STAT 3615
MATH 1526 and 1 of MATH 2524, CS 1024, CS 1044, STAT 2004, STAT 3005, STAT 3604, STAT 3615
PHIL 1504 and CS 1044

Summary of College Requirements in the Curriculum for Liberal Education

There are some differences among colleges and departments as to how CLE courses are to be used. In this section we identify particular CLE requirements that are unique to a college and/or vary within a college. Use the information to plan your program of CLE courses. **It is very important to consult with your advisor because your major department may also require certain CLE courses.**

College of Agriculture and Life Sciences

In addition to the CLE requirements, the College of Agriculture and Life Sciences requires 12 additional semester credits in Area 4, Scientific Reasoning and Discovery. The CLE requirement in Area 3 should be fulfilled by Agricultural Economics or Economics courses, except for Biochemistry majors who may choose from the Area 3 listings.

College of Architecture and Urban Studies

Students in the College of Architecture and Urban Studies should check with their advisors about CLE requirements in their division of the college.

Pamplin College of Business

Specified CLE courses for all Pamplin College of Business majors:

Area 3: Society and Human Behavior
ECON 2005-2006: Principles of Economics
PSYC 2004 or SOC 1004
Two additional social science courses. Students are advised to choose one of these in common with Area 7 courses in the Social Sciences.

Area 5: Quantitative and Symbolic Reasoning
MATH 1525-1526: Elementary Calculus and Matrices

There are no college or department designations in the other areas.

College of Engineering

In order to meet specific accreditation requirements for calculus and natural sciences, the college has specified required sequences in Areas 4 and 5. Some departments may specify additional CLE courses on their checksheets.

Area 2: Ideas, Cultural Traditions, and Values; and
Area 3: Society and Human Behavior
Students who enrolled at Virginia Tech prior to First Summer session 1998 are subject to depth and breadth requirements when selecting courses within Area 2 and Area 3. These students are instructed to see their academic advisor to ensure completion of these graduation requirements.

Area 4: Scientific Reasoning and Discovery
All engineering students (except Mining) must complete PHYS 2305-2306. Mining Engineering students are encouraged to speak with their academic advisor regarding satisfaction of Area 4 requirements.

Area 5: Quantitative and Symbolic Reasoning
All engineering students must complete MATH 1205, 1206. The college also specifies other courses in this area of study.

Liberal Arts and Human Sciences

Most Liberal Arts and Human Sciences students must complete an approved sequence of courses for "depth studies" in Area 4: Scientific Reasoning and Discovery (8 hours) and Area 5: Quantitative and Symbolic Reasoning (6 hours).

In order to meet the foreign language requirement through work taken in high school, students in the majors of Classical Studies, Communication, English, French, German, History, Interdisciplinary Studies, International Studies, Music, Philosophy, Political Science, Sociology, Spanish and Theatre Arts must have passed the third year (Level 3) of one foreign language. Students in the majors of Apparel, Housing, and Resource Management, Education, and Human Development must have completed two years of the same language in high school.

Most Liberal Arts and Human Sciences students are required to take one 3-credit hour class in Area 6. Keep in mind that a course may not be counted in both Area 2 and Area 6 for an individual student.

For detailed information about the College of Liberal Arts and Human Sciences CLE requirements consult your advisor, your department's undergraduate office or the Associate Dean's office in 238 Wallace Hall.

College of Natural Resources

Students in the College of Natural Resources should refer to the degree-specific check sheets for CLE requirements. CLE requirements vary by option and specific CLE courses often are required for each of the 7 CLE Areas of Study.

College of Science

Most Science students must complete an approved sequence of courses in Area 4: Scientific Reasoning and Discovery (8 hours) and Area 5: Quantitative and Symbolic Reasoning (6 hours).

In order to meet the foreign language requirement through work taken in high school, Science students must have passed the third year (Level 3) of one foreign language (the University requirement is Level 2).

Science students are required to take one 3-credit hours class in Area 6. Keep in mind that a course may not be counted in both Area 2 and Area 6 for an individual student.

For detailed information about the College of Science CLE requirements, consult the Guide Sheet, available through your advisor or at the Science Administration Building.

Curriculum for Liberal Education (CLE) Worksheet

1. The following page is a worksheet which is intended to help you with tentative long-range planning.

2. Before completing the worksheet, check your Undergraduate Course Catalog and the checksheet for your major to find out if your major or college predesignates specific courses in any Area(s) of study. (see also "Summary of College Requirements" in this handbook.)

3. Remember, the level of consideration you put into this exercise will have a direct bearing on your academic experience at Virginia Tech. Work with your advisor to identify your goals and preferences as they relate to the Curriculum for Liberal Education. You need to define how your CLE courses will complement the courses in your major.

4. Fill in the blanks with the department abbreviation and course number. Put a check beside each blank when you have successfully completed the course. Also note in Areas 2–5 whether there are additional college requirements.

CLE Course Preferences Worksheet

Area 1: Writing and Discourse

6 credit hours of Freshman Writing — Additional College Requirements:

(3)_____ _____
(3)_____ _____

Area 2: Ideas, Cultural Traditions, and Values

6 credit hours selected from approved CLE courses — Additional College Requirements:
(3) _____ _____
(3) _____ _____

Area 3: Society and Human Behavior

6 credit hours selected from approved CLE courses — Additional College Requirements:
(3) _____ _____
(3) _____ _____

Area 4: Scientific Reasoning and Discovery

(See note on page 15 regarding the administrative change to the required labs for Area 4 and consult with your advisor in your major.)

6 or 8 credit hours selected from approved CLE courses — Additional College Requirements:
(3) _____ _____
(1) _____ _____
(3) _____ _____
(1) _____ _____

Area 5: Quantitative and Symbolic Reasoning

6 credit hours selected from approved CLE courses — Additional College Requirements:
(3) _____ _____
(3) _____ _____

Area 6: Creativity and Aesthetic Experience

1 or 3 credit hours selected from approved CLE courses — Additional College Requirements:
(Most College of Liberal Arts and Human Sciences majors must take one 3-credit course.) (College of Science majors must take one 3-credit course)
(1 or 3) _____ _____

Area 7: Critical Issues in a Global Context

3 semester credit hours selected from approved CLE courses — Additional College Requirements:
(3) _____ _____

Foreign Languages:

Check the Undergraduate Course Catalog for university-wide requirements and for requirements specific to the College of Liberal Arts and Human Sciences and the College of Science (see page 25) and consult with your advisor.

For further information:

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Center for Liberal Education

The mission of the Center for Liberal Education is to elevate the profile, quality and integrity of undergraduate education and student achievement at Virginia Tech in accordance with the University Strategic Plan, mission and core values. Through partnerships with other units in Academic and Student Affairs leading undergraduate education at Virginia Tech, the Center for Liberal Education seeks to:

- build a university-wide culture of innovation and engagement that fosters excellence in advising, teaching and learning;
- lead the ongoing development of an innovative, integrative and flexible Curriculum for Liberal Education;
- facilitate communication and collaboration regarding our undergraduate program among all members of the University community;
- provide vision, direction, facilitation, support and advocacy for student-centered, innovative learning, teaching and advising programs, structures and initiatives at Virginia Tech.