

# *Curriculum for Liberal Education*

A Guide for Students, Advisors & Faculty

2018 - 2019

*Updated June 4, 2018*

# **The Curriculum 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.

## 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.

## **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.

**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. Additional information about Advanced Placement can be found at: [www.registrar.vt.edu/regISTRATION/tests\\_for\\_credit.php](http://www.registrar.vt.edu/regISTRATION/tests_for_credit.php).

**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. Additional transfer information can be found at: [www.registrar.vt.edu/tranguide/](http://www.registrar.vt.edu/tranguide/)

**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. 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.

**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.



**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 oral 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.

Formerly, the CLE required writing-intensive (WI) courses to support the development of students' writing skills across the undergraduate career. To better facilitate and broaden this goal, the requirement evolved into a departmental requirement for Visual, Spoken and Written Expression (ViEWS). Development of these competencies may be fostered through specific courses in the major, courses outside the major, and/or previously designated WI courses.

Students may meet the first-year writing requirement in one of three ways:

1. By successful completion of the two-semester sequence, ENGL 1105-1106 or COMM 1015-1016
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.

SUBJ	#	COURSE_TITLE	CROSS_LIST	PREREQUISITES	OTHER_INFORMATION
COMM	1015	Communication Skills			May not receive credit for both 1016 and 2004.
COMM	1016	Communication Skills		COMM-1015/UG/P	May not receive credit for both 1016 and 2004.
ENGL	1105	First-Year Writing			
ENGL	1106	First-Year Writing		ENGL-1105/UG/P	
ENGL	1204H	Honors Freshman English			Placement by the English Department required.
COMM	1015	Communication Skills			May not receive credit for both 1016 and 2004.

## 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, 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. 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.

SUBJ	#	COURSE_TITLE	CROSS_LIST	PREREQUISITES	OTHER_INFORMATION
AAEC	2424	Co-ops & Humanity			
AFST	1714	Intro African American Studies			
AFST	1814	Intro to African Studies			
AFST	2204	Race & Gender in Rel & Cult	RLCL2204, WGS2204		
AFST	2275	African-American History	HIST2275		
AFST	2276	African-American History	HIST2276		
AFST	3864	Development and Hum in Africa	HIST3864, IS3864		
AINS	1104	Intro American Indian Studies			
ALCE	2414	Identity & Inclusion in Agric		ENGL-1106/UG/P	
ALS	4204	Concepts Comm Food Systems		ALS-3404/UG/P	
APS	1704	Intro to Appalachian Studies	HUM1704		
APS	2124	Music Traditions in Appalachia	MUS2124		
APS	4404	Appalachian Folk Cultures	HUM4404		Pre: Junior standing.
ARBC	2774	Arab Culture and Civilization			Taught in English.
ARBC	3474	Topics in Arab Cinema			Taught in English.
ARCH	3115	Histories of Architecture		ARCH-1015/UG/P	
ARCH	3116	Histories of Architecture		ARCH-3115/UG/P	

SUBJ	#	COURSE_TITLE	CROSS_LIST	PREREQUISITES	OTHER_INFORMATION
ART	1104	Language of Visual Arts			
ART	2385	Surv Hist West Art			
ART	2386	Surv Hist West Art			
ART	3054	Islamic Art and Architecture			
ART	3064	Arts of China and Japan			
ART	3074	Egyptian Art and Architecture			
ART	3084	Greek Art and Architecture		ART-2385/UG/P	
ART	3094	Early Mod Global Vis Culture			
ART	3174	Introduction to Archaeology			
ART	3184	Roman Art and Architecture		ART-2385/UG/P	
ART	3284	Medieval Art and Architecture		ART-2385/UG/P	
ART	3384	Renaissance Art		ART-2386/UG/P	
ART	3484	Baroque Art and Arch		ART-2386/UG/P	
ART	3584	19th Century Art		ART-2386/UG/P	
ART	3884	American Art to 1914		ART-2386/UG/P	
ART	4104	Interpretation of Visual Arts		ART-1104/UG/P	Pre: Six credits of social sciences from Pathways Minor in the Visual Arts and Society checksheet.
CLA	1134	Ancient Mediterranean World	RLCL1134		
CLA	1134H	Ancient Mediterranean World	RLCL1134H		
CLA	2444	Greek and Roman Myth	ENGL2444, RLCL2444		In English.
CLA	2454	Classical Lit in Tran	ENGL2454		In English.

SUBJ	#	COURSE_TITLE	CROSS_LIST	PREREQUISITES	OTHER_INFORMATION
COMM	2064	The Rhetorical Tradition			
ECON	2894	Intro Philosophy Politics Econ	PHIL2894, PSCI2894		
ECON	4884	Adv Philosophy Politics Econ	PHIL4884, PSCI4884	PHIL-2894/UG/P OR PSCI- 2894/UG/P OR ECON-2894/UG/P	Pre: Senior standing.
ENGL	1604	Introduction to Poetry			
ENGL	1614	Introduction to Short Fiction			
ENGL	1624	Intro to Detective Fiction			
ENGL	1634	Introduction to Shakespeare			
ENGL	1644	Intro to World Literature			
ENGL	1654	Intro to Science Fiction			
ENGL	1664	Intro to Women's Literature			
ENGL	1704	The Harry Potter Phenomenon			
ENGL	2444	Greek and Roman Myth	CLA2444, RLCL2444		In English.
ENGL	3024	Religion and Literature	RLCL3024		
ENGL	3414	German Literature in English	GER3414		In English. One 2000 level English literature course required.
ENGL	3424	Topics Rus Lit in Eng	RUS3424	ENGL-1106/UG/P OR ENGL- 1204H/UG/P OR COMM-1016/UG/P	



SUBJ	#	COURSE_TITLE	CROSS_LIST	PREREQUISITES	OTHER_INFORMATION
ENGL	3534	Literature and Ecology		ENGL-1106/UG/P OR ENGL- 1204H/UG/P OR COMM-1016/UG/P	
ENGL	3644	The Postcolonial Novel		ENGL-1106/UG/P OR ENGL- 1204H/UG/P OR COMM-1016/UG/P	
ENGL	4164	Studies in Shakespeare		ENGL-1106/UG/P OR ENGL- 1204H/UG/P OR COMM-1016/UG/P	
FR	2714	French Culture & Civ			Taught in English.
FR	3205	French Culture & Civ		(FR-3105/UG/P AND FR- 3106/UG/P)	
FR	3206	French Culture & Civ		(FR-3105/UG/P AND FR- 3106/UG/P)	
FR	3305	Survey of French Literature		FR-3304/UG/P AND FR- 3105/UG/P AND FR-3106/UG/P	
FR	3306	Survey of French Literature		FR-3304/UG/P AND FR- 3105/UG/P AND FR-3106/UG/P	
FR	3424	Medieval-Renaissance Culture		FR-3304/UG/P	Taught in French.
FR	3434	Baroque-Revolution Culture		FR-3304/UG/P	Taught in French.

SUBJ	#	COURSE_TITLE	CROSS_LIST	PREREQUISITES	OTHER_INFORMATION
FR	3454	WWI-Contemporary Culture		FR-3304/UG/P	Taught in French.
FREC	2554	Leading Global Sustainability	LAR2554, NR2554		
GER	2724	German Culture & Civ			Taught in English.
GER	3305	Survey of German Literature		(GER-3105/UG/P AND GER- 3106/UG/P) OR (GER-3105/UG/P AND GER- 3204/UG/P) OR (GER-3105/UG/P AND GER- 3306/UG/P) OR (GER-3106/UG/P AND GER- 3204/UG/P) OR (GER-3106/UG/P AND GER- 3306/UG/P)	
GER	3306	Survey of German Literature		GER-3105/UG/P OR GER- 3106/UG/P	Taught in German.
GER	3414	German Literature in English	ENGL3414		In English. One 2000- level English literature course required.
HD	1134	Intro to Disabilities Studies			
HIST	1024	Ancient History			
HIST	1025	Intro European Civ			
HIST	1026	Intro European Civ			
HIST	2054	Engineering Cultures	STS2054		

SUBJ	#	COURSE_TITLE	CROSS_LIST	PREREQUISITES	OTHER_INFORMATION
HIST	2114	Topics Crit Issues Euro Hist			
HIST	2124	Topics Crit Issues World Hist			
HIST	2224	Ancient Greek and Roman Women			
HIST	2275	African-American History	AFST2275		
HIST	2276	African-American History	AFST2276		
HIST	2604	Intro Data in Social Context	SOC2604, STS2604		
HIST	3054	The American Civil War			
HIST	3114	History of Capitalism			
HIST	3144	American Environmental History			
HIST	3164	Sexuality in American History			
HIST	3304	World of Alexander the Great			
HIST	3374	French Empire			
HIST	3714	War and Medicine			
HIST	3864	Development and Hum in Africa	AFST3864, IS3864		
HTM	3484	Socio-Cult Impacts of Tourism			
HUM	1324	HUM: Mod World			
HUM	1604	Intro Hum and Arts			
HUM	2504	Intro Amer Studies	RLCL2504		
HUM	3034	Theories of Popular Culture	RLCL3034		
HUM	4404	Appalachian Folk Cultures	APS4404		Junior standing.
IS	3864	Development and Hum in Africa	AFST3864, HIST3864		
ITAL	3305	Intro to Ital Lit in Context		ITAL-3105/UG/P OR ITAL- 3106/UG/P	Taught in Italian.

SUBJ	#	COURSE_TITLE	CROSS_LIST	PREREQUISITES	OTHER_INFORMATION
ITAL	3306	Intro to Ital Lit in Context		ITAL-3105/UG/P OR ITAL- 3106/UG/P	Taught in Italian.
ITAL	3474	Topics in Italian Cinema			
ITDS	1114	Design Appreciation			
JUD	2134	Judaism	RLCL2134		
JUD	2414	Hebrew Bible/Old Testament	RLCL2414		
LAR	2554	Leading Global Sustainability	FREC2554, NR2554		
LAR	4034	Evol of the Am Land			
LDRS	1015	Exploring Citizen Leadership			
MGT	4324	Bus and Prof Ethics	PHIL4324		
MUS	1005	Theory/Fundamentals			
MUS	1006	Theory/Fundamentals			
MUS	1104	Music Appreciation			
MUS	2124	Music Traditions in Appalachia	APS2124		
MUS	3115	Music In America			
MUS	3116	Music In America			
MUS	3164	History of Electronic Music			
NR	2554	Leading Global Sustainability	FREC2554, LAR2554		
PHIL	1204	Knowledge and Reality			
PHIL	1304	Morality and Justice			
PHIL	1304H	Morality and Justice			
PHIL	2115	Ancient/Medieval Philosophy			
PHIL	2116	Ancient/Medieval Philosophy			
PHIL	2125	History of Modern Philosophy			

SUBJ	#	COURSE_TITLE	CROSS_LIST	PREREQUISITES	OTHER_INFORMATION
PHIL	2126	History of Modern Philosophy			
PHIL	2304	Global Ethics			
PHIL	2605	Reason and Revolution			
PHIL	2606	Reason and Revolution			
PHIL	2894	Intro Philosophy Politics Econ	ECON2894, PSCI2894		
PHIL	3015	Political Theory	PSCI3015	PSCI-2014/UG/P	
PHIL	3016	Political Theory	PSCI3016	PSCI-2014/UG/P	
PHIL	3314	Ethical Theory			3 Philosophy credits required.
PHIL	3414	Aesthetics			
PHIL	3454	Philosophy of Religion	RLCL3454		
PHIL	4204	Philosophy of Mind			3 Philosophy credits required.
PHIL	4214	Metaphysics			3 Philosophy credits required.
PHIL	4224	Epistemology			3 Philosophy credits required.
PHIL	4304	Political Philosophy			3 Philosophy credits required.
PHIL	4324	Bus and Prof Ethics	MGT4324		
PHIL	4334	Jurisprudence			3 Philosophy credits required.
PHIL	4614	Philosophy of Science			One year of science and 3 philosophy credits required.
PHIL	4884	Adv Philosophy Politics Econ	ECON4884, PSCI4884	PHIL-2894/UG/P OR PSCI- 2894/UG/P OR ECON-2894/UG/P	Pre: Senior standing.
PSCI	2894	Intro Philosophy Politics Econ	ECON2894, PHIL2894		
PSCI	3015	Political Theory	PHIL3015		

SUBJ	#	COURSE_TITLE	CROSS_LIST	PREREQUISITES	OTHER_INFORMATION
PSCI	3016	Political Theory	PHIL3016		
PSCI	4884	Adv Philosophy Politics Econ	ECON4884, PHIL4884	PHIL-2894/UG/P OR PSCI- 2894/UG/P OR ECON-2894/UG/P	Senior standing.
RLCL	1024	Judaism, Christianity, Islam			
RLCL	1024H	Judaism, Christianity, Islam			
RLCL	1034	Religion and the Modern World			
RLCL	1034H	Religion and the Modern World			
RLCL	1044	Religious Ethics			
RLCL	1134	Ancient Mediterranean World	CLA1134		
RLCL	1134H	Ancient Mediterranean World	CLA1134H		
RLCL	1214	The Medieval World			
RLCL	1214H	The Medieval World			
RLCL	1904	Religion and Culture In Asia			
RLCL	1904H	Religion and Culture in Asia			
RLCL	2124	Religion in American Life			
RLCL	2134	Judaism	JUD2134		
RLCL	2204	Race & Gender in Rel & Cult	AFST2204, WGS2204		
RLCL	2414	Hebrew Bible/Old Testament	JUD2414		

SUBJ	#	COURSE_TITLE	CROSS_LIST	PREREQUISITES	OTHER_INFORMATION
RLCL	2424	New Testament			
RLCL	2424H	New Testament			
RLCL	2444	Greek and Roman Mythology	CLA2444, ENGL2444		In English.
RLCL	2504	Intro Amer Studies	HUM2504		
RLCL	3024	Religion and Literature	ENGL3024		
RLCL	3034	Theories of Popular Culture	HUM3034		
RLCL	3214	Religion and Culture in India			
RLCL	3224	Religion in China and Japan			
RLCL	3414	Jesus in Earliest Christianity			
RLCL	3424	Christian Orthodoxy and Heresy			
RLCL	3454	Philosophy of Religion	PHIL3454		
RUS	2734	Intro Rus Culture and Civ			Taught in English.
RUS	3304	Survey 19th Century Rus Lit		ENGL-1106/UG/P OR ENGL- 1204H/UG/P	Taught in English.
RUS	3314	Survey 20th Century Rus Lit		ENGL-1106/UG/P OR ENGL- 1204H/UG/P	Taught in English.
RUS	3424	Topics Rus Lit in Eng	ENGL3424	ENGL-1106/UG/P OR ENGL- 1204H/UG/P OR COMM-1016/UG/P	
SOC	2024	Soc of Race and Ethnicity			Approved for CLE Area 2 only when taken only in combination with AFST 1714.

SUBJ	#	COURSE_TITLE	CROSS_LIST	PREREQUISITES	OTHER_INFORMATION
SOC	2254	Feminist Actvism	WGS2254	WGS-1824/UG/P	
SOC	2604	Intro Data in Social Context	HIST2604, STS2604		
SPAN	2744	Topics in Spanish Culture			Taught in English.
SPAN	2754	Span-Am Culture/Civ			In English.
SPAN	2764	Intro Latino American Studies			In English.
SPAN	3304	Intro Hispanic Literature		SPAN-3106/UG/P	Taught in Spanish.
SPAN	3404	Early Penin Culture & Lit		SPAN-3304/UG/P	Taught in Spanish.
SPAN	3414	Modern Penin Culture & Lit		SPAN-3304/UG/P	Taught in Spanish.
SPAN	3444	Early Span-Am Culture & Lit		SPAN-3304/UG/P	
SPAN	3464	Mod Mexican/Central Am Cult Lt		SPAN-3304/UG/P	Taught in Spanish.
SPAN	3474	Mod Spanish Caribbean Cult Lit		SPAN-3304/UG/P	Taught in Spanish.
SPAN	3484	Mod Andean/S Cone Cult Lit		SPAN-3304/UG/P	Taught in Spanish.
SPIA	1024	Community Service Learning			
STS	1504	Intro Science, Tech, Society			
STS	2054	Engineering Cultures	HIST2054		
STS	2154	Hum, Techn, & Life Sciences			
STS	2254	Innovation in Context			
STS	2354	Hum, Tech, & Physical Sciences			
STS	2444	Global Sci & Tech Policy			
STS	2454	Science Tech & Environment			
STS	2604	Intro Data in Social Context	HIST2604, SOC2604		
STS	3105	Sci & Techn in Modern Society			



<b>SUBJ</b>	<b>#</b>	<b>COURSE_TITLE</b>	<b>CROSS_LIST</b>	<b>PREREQUISITES</b>	<b>OTHER_INFORMATION</b>
STS	3284	Technology and Disability			
STS	4304	Issues in Sci, Tech, Society			Junior Standing.
TA	2014	Introduction to Theatre			
TA	2024	Introduction to Acting			
UAP	4264	Environmental Ethics			Junior, senior or graduate standing required.
UH	2554	Humanities&Global Citizenship			
WGS	1824	Intro Women's & Gender Studies			
WGS	2204	Race & Gender in Rel & Cult	AFST2204, RLCL2204		
WGS	2224	Women and Creativity		WGS-1824//	
WGS	2244	Women and Science		WGS-1824//	
WGS	2254	Feminist Activism	SOC2254	WGS-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, 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. 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.

SUBJ	#	COURSE_TITLE	CROSS_LIST	PREREQUISTES	OTHER_INFORMATION
AAEC	1005	Econ Food Fiber Sys			
AAEC	1006	Econ Food Fiber Syst			
AAEC	3324	Environment Sustain Dev Econ		AAEC-1005/UG/P OR AAEC-1006/UG/P OR ECON-2005/UG/P	
AFST	2264	Race Class Gender Sexualities	SOC2264, WGS2264	WGS-1824/UG/P	
AHRM	2404	Consumer Rights			
ART	3174	Introduction to Archaeology			
ART	3674	History of Photography		ART-2386/UG/P	
AS	3215	AF Management & Leadership		AS-2116/UG/P	
COMM	1014	Introduction to Communication			
COMM	2044	Principles of Public Relations			
COMM	2074	Introduction to Sports Media			
COMM	2084	Media and Society			
COMM	2134	Intro to Health Communication			
ECON	2005	Principles of Economics			
ECON	2006	Principles of Economics		ECON-2005/UG/P	
ECON	2025H	Honors Principles of Economics			

SUBJ	#	COURSE_TITLE	CROSS_LIST	PREREQUISTES	OTHER_INFORMATION
ECON	2026H	Honors Principles of Economics		ECON-2025H/UG/P	
ECON	2894	Intro Philosophy Politics Econ	PHIL2894, PSCI2894		
EDCI	3004	Pre-Education Seminar			Pre: Junior standing.
EDCI	3024	Issues of Schooling in the US			
EDCI	3144	Educ Excptnl Learners	HD3144		
EDCO	2004	Healthy Relationships			
EDEP	2444	Motivating Yourself and Others			
ENGE	4094	Startup: Commercialization	IDS4094, MGT4094		
ENGL	1504	Introduction to Linguistics			
ENGL	1514	Language and Society			
ENGL	3134	Gender and Linguistics	WGS3134	ENGL-1106/UG/P OR ENGL-1204H/UG/P OR COMM-1016/UG/P	
ENGL	3144	Language & Ethnicity in the US	RLCL3144, SOC3144	ENGL-1106/UG/P OR ENGL-1204H/UG/P OR COMM-1016/UG/P	
FREC	2134	Plants & Greenspaces Urban Com	HORT2134		
FREC	2554	Leading Global Sustainability	LAR2554, NR2554		

SUBJ	#	COURSE_TITLE	CROSS_LIST	PREREQUISTES	OTHER_INFORMATION
GEOG	1004	Intro Human Geography			
GEOG	1014	World Regions			
GEOG	1115	Seeking Sustainability	NR1115		
GEOG	1116	Seeking Sustainability	NR1116	GEOG-1115/UG/P OR NR-1115/UG/P	
GEOG	2004	Water, Environment & Society	NR2004		
GEOG	2054	Introduction to World Politics	IS2054, PSCI2054		
GEOG	2064	Global Econ and World Politics	IS2064, PSCI2064		
GEOG	2244	Sustainable Urbanization	SPIA2244		
HD	1004	Human Development I			
HD	2004	HD II: Adulthood & Aging		HD-1004/UG/P	
HD	2304	Family Relationships			
HD	3144	Educ Excptnl Learners	EDCI3144		
HIST	1115	History of the United States			
HIST	1116	History of the United States			
HIST	1215	Intro to World History			
HIST	1216	Intro to World History			
HIST	1354	Conflict Security in East Asia			
HIST	1515	History of Africa			
HIST	1516	History of Africa			
HIST	2104	Issues in US History			
HIST	2715	History of Technology	STS2715		
HIST	2716	History of Technology	STS2716		
HIST	3114	History of Capitalism			

SUBJ	#	COURSE_TITLE	CROSS_LIST	PREREQUISTES	OTHER_INFORMATION
HIST	3144	American Environmental History			
HIST	3155	History of American Cities			
HIST	3156	History of American Cities			
HIST	3164	Sexuality in American History			
HIST	3304	World of Alexander the Great			
HIST	3374	French Empire			
HIST	3544	World War II			
HIST	3554	Age of Globalization			
HIST	3564	The Cold War			
HIST	3705	History of Science	STS3705		
HIST	3706	History of Science	STS3706		
HNFE	2314	Active Transp for Health	SPIA2314		
HNFE	2664	Behav Nutrition Phys Activity			
HORT	2134	Plants & Greenspaces Urban Com	FREC2134		
HTM	3484	Socio-Cult Impacts of Tourism			
IDS	4094	Startup: Commercialization	ENGE4094, MGT4094		
IS	1004	Nations and Nationalities	PSCI1004		
IS	1024	Comp Gov & Politics	PSCI1024		
IS	2054	Introduction to World Politics	GEOG2054, PSCI2054		
IS	2064	Global Econ and World Politics	GEOG2064, PSCI2064		

SUBJ	#	COURSE_TITLE	CROSS_LIST	PREREQUISTES	OTHER_INFORMATION
LAR	2554	Leading Global Sustainability	FREC2554, NR2554		
LDRS	1016	Exploring Citizen Leadership			
MGT	2354	Leadership: Mgr & Entrepreneur			Pre: Sophomore Standing.
MGT	3444	Multi Diversity in Orgs			Pre: Junior Standing. (3H,3C)
MGT	4094	Startup: Commercialization	ENGE4094, IDS4094		
MN	4005	Leadership & Mgt/Ethics			Pre: Sophomore Standing.
MN	4006	Leadership & Mgt/Ethics			Pre: Sophomore Standing.
NR	1115	Seeking Sustainability	GEOG1115		
NR	1116	Seeking Sustainability	GEOG1116	NR-1115/UG/P OR GEOG-1115/UG/P	
NR	2004	Water, Environment & Society	GEOG2004		
NR	2554	Leading Global Sustainability	FREC2554, LAR2554		
PHIL	2894	Intro Philosophy Politics Econ	ECON2894, PSCI2894		
PSCI	1004	Nations and Nationalities	IS1004		
PSCI	1014	US Gov & Politics			
PSCI	1024	Comp Gov & Politics	IS1024		
PSCI	1024H	Honors Comp Gov & Politics			
PSCI	2054	Introduction to World Politics	GEOG2054, IS2054		
PSCI	2064	Global Econ and World Politics	GEOG2064, IS2064		

<b>SUBJ</b>	<b>#</b>	<b>COURSE_TITLE</b>	<b>CROSS_LIST</b>	<b>PREREQUISTES</b>	<b>OTHER_INFORMATION</b>
PSCI	2894	Intro Philosophy Politics Econ	ECON2894, PHIL2894		
PSCI	29843	Special Study			
PSVP	2044	Peace and Violence	SOC2044		
PSYC	1004	Introductory Psychology			
PSYC	2034	Developmental Psychology		PSYC-1004/UG/P	
PSYC	2044	Psychology of Learning		PSYC-1004/UG/P	
PSYC	2054	Psychology of Personality		PSYC-2004/UG/P OR PSYC- 1004/UG/P	
PSYC	2064	Nervous Systems and Behavior		PSYC-1004/UG/P	
PSYC	2084	Social Psychology		PSYC-1004/UG/P	
PSYC	3014	Abnormal Psychology		PSYC-1004/UG/P	
PSYC	3024	Human Behaviors Nat Environ		PSYC-1004/UG/P	
RLCL	1004	Intro to Religion & Culture			
RLCL	1004H	Intro to Religion & Culture			
RLCL	2054	Ethnography: Studying Culture	SOC2054		
RLCL	2514	Asian American Experience	SOC2514		



SUBJ	#	COURSE_TITLE	CROSS_LIST	PREREQUISTES	OTHER_INFORMATION
RLCL	3144	Language & Ethnicity in the US	ENGL3144, SOC3144	ENGL-1106/UG/P OR ENGL-1204H/UG/P OR COMM-1016/UG/P	
SOC	1004	Introductory Sociology			
SOC	1014	Intro Social Anthropol			
SOC	2004	Social Problems			
SOC	2014	Dating, Marriage and Divorce			
SOC	2024	Soc of Race and Ethnicity			Approved for CLE Area 2 only when taken only in combination with AFST 1714.
SOC	2034	Diversity Community Engagement			
SOC	2044	Peace and Violence	PSVP2044		
SOC	2054	Ethnography: Studying Culture	RLCL2054		
SOC	2264	Race Class Gender Sexualities	AFST2264, WGS2264	WGS-1824/UG/P	
SOC	2304	Individual In Society			
SOC	2514	Asian American Experience	RLCL2514		
SOC	3004	Social Inequality		SOC-1004//	
SOC	3144	Language & Ethnicity in the US	ENGL3144, RLCL3144	ENGL-1106/UG/P OR ENGL-1204H/UG/P OR COMM-1016/UG/P	

<b>SUBJ</b>	<b>#</b>	<b>COURSE_TITLE</b>	<b>CROSS_LIST</b>	<b>PREREQUISTES</b>	<b>OTHER_INFORMATION</b>
SOC	3304	Collective Action		SOC-1004//	
SOC	3504	Population Trends and Issues		SOC-1004/UG/P	
SPAN	2774	Minority Lang & Span Context			Taught in English.
SPIA	2024	Community Systems Thinking			
SPIA	2244	Sustainable Urbanization	GEOG2244		
SPIA	2314	Active Transp for Health	HNFE2314		
SPIA	2554	Collaborative Policy & Plan			
STL	2304	Foundations of STL		(ENGL-1105/UG/P AND ENGL-1106/UG/P) OR ENGL-1204H/UG/P	
STL	4324	Global Aspects of IP			Pre: Senior standing.
STS	2444	Global Sci & Tech Policy			
STS	2715	History of Technology	HIST2715		
STS	2716	History of Technology	HIST2716		
STS	3334	Energy and Society			
STS	3705	History of Science	HIST3705		
STS	3706	History of Science	HIST3706		
STS	4704	Gender and Science	WGS4704	STS-1504/UG/P OR WGS-2244/UG/P	

<b>SUBJ</b>	<b>#</b>	<b>COURSE_TITLE</b>	<b>CROSS_LIST</b>	<b>PREREQUISTES</b>	<b>OTHER_INFORMATION</b>
UAP	1024	Urban Public Issues			
UAP	2014	Urbanization and Development			
UAP	3014	Urban Policy and Planning		UAP-1024/UG/B-	Must complete prerequisite UAP 1024 with a B- grade or higher.
UH	2544	Soc Sci & Global Citizenship			
WGS	2264	Race Class Gender Sexualities	AFST2264, SOC2264	WGS-1824/UG/P	
WGS	3134	Gender and Linguistics	ENGL3134	ENGL-1106/UG/P OR ENGL-1204H/UG/P OR COMM-1016/UG/P	
WGS	4704	Gender and Science	STS4704	WGS-2244/UG/P OR STS-1504/UG/P	

## Area 4: Scientific Reasoning and Discovery

6 credit hours (2 courses) from approved CLE courses  
Additional 2 lab courses required in some majors

### 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, 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. 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.

<b>SUBJ</b>	<b>#</b>	<b>COURSE_TITLE</b>	<b>CROSS_LIST</b>	<b>PREREQUISTES</b>	<b>OTHER_INFORMATION</b>
ALS	3404	Ecological Agriculture			
BIOL	1005	General Biology			
BIOL	1006	General Biology			
BIOL	1014	Introduction to Biology			
BIOL	1015	General Biology Lab			
BIOL	1016	General Biology Lab			
BIOL	1024	Cancer Causes Treatments Costs			
BIOL	1034	Biology of Sex			
BIOL	1054	Human Biol: Cncpts Curr Issues			
BIOL	1105	Principles of Biology			
BIOL	1106	Principles of Biology			
BIOL	1115	Principles of Biol Lab			
BIOL	1116	Principles of Biol Lab			
BIOL	1205H	Honors Biology			
BIOL	1206H	Honors Biology			
BIOL	29844	Special Study			
BMES	29844	Special Study			
CHEM	1015	Chemistry in Context			
CHEM	1016	Chemistry in Context			

SUBJ	#	COURSE_TITLE	CROSS_LIST	PREREQUISTES	OTHER_INFORMATION
CHEM	1025	Chemistry in Context Lab			
CHEM	1026	Chemistry in Context Lab			
CHEM	1035	General Chemistry			Co: MATH 1025 or MATH 1225.
CHEM	1036	General Chemistry		CHEM-1035/UG/P OR CHEM-1055/UG/P OR CHEM-1055H/UG/P	Co: MATH 1025 or MATH 1225.
CHEM	1045	General Chemistry Lab			
CHEM	1046	General Chemistry Lab		CHEM-1045/UG/P OR CHEM-1065/UG/P	
CSES	2244	Ag Global Food Sec and Health			
ENSC	1015	Found Envrion Science			
ENSC	1016	Found Envrion Science			
FREC	2004	Forest Ecosystems			
FREC	2114	Ecology of Appalachian Forests			
GEOS	1004	Introduction to Earth Science			
GEOS	1014	Evolution of Earth-Life System			
GEOS	1024	Earth Resources, Soc, & Env			
GEOS	1034	Earth's Natural Hazards			

<b>SUBJ</b>	<b>#</b>	<b>COURSE_TITLE</b>	<b>CROSS_LIST</b>	<b>PREREQUISTES</b>	<b>OTHER_INFORMATION</b>
GEOS	1054	Age of Dinosaurs			
GEOS	1104	Physical Geology Laboratory			
GEOS	1124	Resources Geol Lab			
GEOS	2014	Mission to the Planets			
ISC	1105	Integrated Science I			

SUBJ	#	COURSE_TITLE	CROSS_LIST	PREREQUISTES	OTHER_INFORMATION
ISC	1106	Integrated Science I		ISC-1105/UG/P	
ISC	1115	Integrated Science Lab I			
ISC	1116	Integrated Sceince Lab I		ISC-1115/UG/P	
LAR	1254	Environment & Natural Systems			
MSE	29844	Special Study			
NEUR	2464	Neuroscience and Society			
PHYS	1055	Introduction to Astronomy			
PHYS	1056	Introduction to Astronomy			
PHYS	1155	Astronomy Laboratory			
PHYS	1156	Astronomy Laboratory		PHYS-1155//	
PHYS	2074	Contemporary Physics			
PHYS	2205	General Physics		MATH-1016/UG/P OR MATH-1016H/UG/P OR MATH-1025/UG/P OR MATH-2015/UG/P OR MATH-1026/UG/P OR MATH-1205/UG/P OR MATH-1205H/UG/P OR MATH-1525/UG/P OR MATH-1535/UG/P OR MATH-1225/UG/P	



SUBJ	#	COURSE_TITLE	CROSS_LIST	PREREQUISTES	OTHER_INFORMATION
				OR MATH-1225H/UG/P OR MATH-1225H/UG/P	
PHYS	2206	General Physics		PHYS-2305/UG/P OR PHYS-2205/UG/P	
PHYS	2215	General Physics Laboratory			
PHYS	2216	General Physics Laboratory		PHYS-2215/UG/P OR PHYS-2305/UG/P	
PHYS	2305	Foundations of Physics		(MATH-1205/UG/P OR MATH-1205H/UG/P OR MATH-1225/UG/P) OR (MATH-1206/UG/P OR MATH-1206H/UG/P OR MATH-1226/UG/P)	Co: 2325 or (MATH 1206 or MATH 1206H or MATH 1226) for 2305. Pre: (MATH 1205 or MATH 1205H or MATH 1225) or (MATH 1206 or MATH 1206H or MATH 1226) for 2305; (MATH 1206 or MATH 1206H or MATH 1226), 2305 for 2306. (3H,3L,4C)
PHYS	2306	Foundations of Physics		(MATH-1206/UG/P OR MATH-1206H/UG/P OR MATH-1226/UG/P) AND PHYS-2305/UG/P	Co: 2325 or (MATH 1206 or MATH 1206H or MATH 1226) for 2305. Pre: (MATH 1205 or MATH 1205H or MATH 1225) or (MATH 1206 or MATH 1206H or MATH 1226) for 2305; (MATH 1206 or MATH 1206H or MATH 1226), 2305 for 2306. (3H,3L,4C)

<b>SUBJ</b>	<b>#</b>	<b>COURSE_TITLE</b>	<b>CROSS_LIST</b>	<b>PREREQUISTES</b>	<b>OTHER_INFORMATION</b>
UH	2524	Nat Sci & Global Citizenship			

## 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, 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.

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

SUBJ	#	COURSE_TITLE	CROSS_LIST	PREREQUISTES	OTHER_INFORMATION
AAEC	2104	Personal Financial Planning	FIN2104		

<b>SUBJ</b>	<b>#</b>	<b>COURSE_TITLE</b>	<b>CROSS_LIST</b>	<b>PREREQUISTES</b>	<b>OTHER_INFORMATION</b>
ACIS	1004	Accounting Foundations			No credit will be given for ACIS 1004 if taken with or after ACIS 2115 or ACIS 2116.
ART	3114	Creative Code		ART-1114/UG/P	
CEE	3804	Computer Applications for CEE			
CONS	2304	Consumer and Family Finances			
CS	1014	Intro Computational Thinking			
CS	1044	Intro Prog in C			
FIN	2114	Invest & Financial Literacy			
FREC	3004	Environmental Informatics			
HD	2104	Quantitative Community Researc	SOC2104		
HD	3024	Community Analytics		STAT-2004/UG/P OR HD-3014/UG/P	
HIST	2604	Intro Data in Social Context	SOC2604, STS2604		
ISC	1105	Integrated Science I			
ISC	1106	Integrated Science I		ISC-1105/UG/P	
LAR	1254	Environment & Natural Systems			

SUBJ	#	COURSE_TITLE	CROSS_LIST	PREREQUISTES	OTHER_INFORMATION
MASC	1024	Math Sci, Lib Arts			
MASC	1044	Comp Sci, Lib Arts			Prior credit for any of the following precludes credit for 1044: CS 1705, 1706, or any computer science course at the 2000 level or higher. II
MATH	1014	Precalc with Transcendental			Two units of high school algebra and one of plane geometry are required.
MATH	1016	Calculus With Trig I		MATH-1015/UG/P OR MATH-1014/UG/P	
MATH	1025	Elementary Calculus			Assumes 2 units of high school algebra, 1 unit of geometry, 1/2 unit of trigonometry and precalculus. 1026: Integral calculus, numerical techniques, elementary differential equations, applications for the life sciences, use of spreadsheet and scientific software.
MATH	1026	Elementary Calculus		MATH-1025/UG/P OR MATH-1225/UG/P	
MATH	1205	Calculus			Pre (for 1205): 2 units of high school algebra, 1 unit of geometry, 1/2 unit each of trigonometry and precalculus and placement by Math Dept.

SUBJ	#	COURSE_TITLE	CROSS_LIST	PREREQUISTES	OTHER_INFORMATION
MATH	1206	Calculus		MATH-1205/UG/P OR MATH-1225/UG/P	Pre 1205: 2 units of H.S. algebra, 1 unit of geometry, 1/2 unit each of trigonometry and precalculus, and placement by Math Dept.; or a grade of B or better in one of 1015, 1016, or 1536; or a passing grade on the Calculus Readiness Exam.
MATH	1225	Calculus of a Single Variable			Assumes 2 units of high school algebra, 1 unit of geometry, 1/2 unit each of trigonometry and precalculus, and placement by Math Dept. 1226: techniques and applications of integration, trapezoidal and Simpson's rules, improper integrals, sequences and series, power series, parametric curves and polar coordinates, software-based techniques.
MATH	1226	Calculus of a Single Variable		MATH-1225/UG/C-	
MATH	1524	Business Calculus			Assumes 2 units of high school algebra and 1 unit of geometry.
MATH	1525	Calc With Matrices			Assumes 2 units of high school algebra and 1 unit of plane geometry.
MATH	1526	Calc With Matrices		MATH-1525/UG/P OR MATH-1225/UG/P	
MATH	1535	Geometry Mathematics of Design			Assumes 2 units of high school algebra and 1 unit of high school geometry.
MATH	1536	Geometry Mathematics of Design			Assumes 2 units of high school algebra and 1 unit of high school geometry.

SUBJ	#	COURSE_TITLE	CROSS_LIST	PREREQUISTES	OTHER_INFORMATION
PHIL	1504	Language and Logic			
PHIL	3505	Modern Logic & Dev			
PHIL	3506	Modern Logic & Dev		PHIL-3505/UG/P	
SOC	2104	Quantitative Community Researc	HD2104		
SOC	2604	Intro Data in Social Context	HIST2604, STS2604		
SPIA	2005	Intro to Urban Analytics			
SPIA	2006	Intro to Urban Analytics			
SPIA	2104	Urban Analytics for Decisions			
SPIA	4464	Data & Art of Policy and Plans			
STAT	2004	Introductory Statistics		MATH-1014/UG/P OR MATH-1025/UG/P OR MATH-1225/UG/P OR MATH-1525/UG/P	
STAT	3005	Statistical Methods		MATH-1205/UG/P OR MATH-1225/UG/P	Co: MATH 1206 or MATH 1226 for 3005.
STAT	3604	Statistics for Social Science		MATH-1014/UG/P OR MATH-1025/UG/P OR MATH-1525/UG/P OR MATH-1225/UG/P	

<b>SUBJ</b>	<b>#</b>	<b>COURSE_TITLE</b>	<b>CROSS_LIST</b>	<b>PREREQUISTES</b>	<b>OTHER_INFORMATION</b>
STAT	3615	Biological Statistics		MATH-1205/UG/P OR MATH- 1225/UG/P OR MATH-1025/UG/P OR MATH- 1525/UG/P	
STS	2604	Intro Data in Social Context	HIST2604, SOC2604		



## Area 6: Creativity and Aesthetic Experience

1 or 3 credit hours from approved CLE courses

(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. **Some courses are listed in both Area 2 and Area 6; remember that they CANNOT be used to count for BOTH Area 2 and Area 6 for an individual student. Majors in the College of Science and most majors in the College of Liberal Arts and Human Sciences must take one 3 credit hour course.**

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

<b>SUBJ</b>	<b>#</b>	<b>COURSE_TITLE</b>	<b>CROSS_LIST</b>	<b>PREREQUISITES</b>	<b>OTHER_INFORMATION</b>
AHRM	1014	Intro Design for Consumers			
AHRM	2014	Design for Consumers Studio		AHRM-1014/UG/P	
ALS	1004	Ag, Arts and Society			
APS	2124	Music Traditions in Appalachia	MUS2124		
ARCH	1015	Foundation Design Laboratory			
ART	1004	Studio Art for Non-Majors			
ART	1104	Language of Visual Arts			
ART	1114	CT+E Play to Make			
ART	1234	Topics in Design Non-Majors			
ART	2385	Surv Hist West Art			
ART	2386	Surv Hist West Art			
ART	2514	Drawing Concepts		ART-1414/UG/P	
ART	3054	Islamic Art and Architecture			
ART	3064	Arts of China and Japan			
ART	3074	Egyptian Art and Architecture			
ART	3084	Greek Art and Architecture		ART-2385/UG/P	
ART	3094	Early Mod Global Vis Culture			
ART	3184	Roman Art and Architecture		ART-2385/UG/P	
ART	3284	Medieval Art and Architecture		ART-2385/UG/P	
ART	3384	Renaissance Art		ART-2386/UG/P	

SUBJ	#	COURSE_TITLE	CROSS_LIST	PREREQUISTES	OTHER_INFORMATION
ART	3484	Baroque Art and Arch		ART-2386/UG/P	
ART	3584	19th Century Art		ART-2386/UG/P	
ART	3674	History of Photography		ART-2386/UG/P	
ART	3884	American Art to 1914		ART-2386/UG/P	
ART	4104	Interpretation of Visual Arts		ART-1104/UG/P	Pre: Six credits of social sciences from Pathways Minor in the Visual Arts and Society checksheet.
CINE	2054	Introduction to Cinema			
ENGE	2094	Create!: Ideation & Innovation			
ENGL	1604	Introduction to Poetry			
ENGL	1614	Introduction to Short Fiction			
ENGL	1634	Introduction to Shakespeare			
ENGL	2744	Intro to Creative Writing		ENGL-1106/UG/P OR ENGL-1204H/UG/P OR COMM-1016/UG/P	
FA	2004	Creativity & the Artistic Exp			
GER	3474	Topics in German Cinema			
HORT	2164	Floral Design			
HUM	2204	The Creative Process			
ITDS	1114	Design Appreciation			
ITDS	1224	Intro to Interior Design			
LAR	1144	Introduction to LA			

SUBJ	#	COURSE_TITLE	CROSS_LIST	PREREQUISTES	OTHER_INFORMATION
MUS	1104	Music Appreciation			
MUS	2115	Survey of Western Music			
MUS	2116	Survey of Western Music			
MUS	2124	Music Traditions in Appalachia	APS2124		
MUS	3115	Music In America			
MUS	3116	Music In America			
MUS	3164	History of Electronic Music			
MUS	3314	Instrumental Ensemble Music			Consent and audition required.
MUS	3414	Choral Ensemble Music			Consent and audition required.
RED	2604	Residential Design			
RED	2654	Residential Environments		AHRM-1014/UG/P	
RED	4664	Universal Design			
TA	2014	Introduction to Theatre			
TA	2024	Introduction to Acting			
TA	2204	Creative Dance			
TA	2404	Intro App Collaborative Tech			
UH	2534	Desn/Arts & Global Citizenship			

## 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.

SUBJ	#	COURSE_TITLE	CROSS_LIST	PREREQUISITES	OTHER_INFORMATION
AAEC	1264	Peace Economics			
AAEC	3204	Intl Agri Dvlp & Trad		AAEC-1005/UG/P OR ECON-2005/UG/P	
AAEC	3314	Environmental Law			
AFST	1814	Intro to African Studies			Also approved for Area 2.
AFST	2275	African-American History	HIST2275		Also approved for Area 2.
AFST	2276	African-American History	HIST2276		Also approved for Area 2.
AFST	3864	Development and Hum in Africa	HIST3864, IS3864		Also approved for Area 2.

SUBJ	#	COURSE_TITLE	CROSS_LIST	PREREQUISITES	OTHER_INFORMATION
ARBC	2774	Arab Culture and Civilization			Also approved for Area 2. Taught in English.
ARBC	3474	Topics in Arab Cinema			Also approved for Area 2. Taught in English.
AS	4215	Natl Security Forces		AS-3216/UG/P	
BIOL	2204	Plants and Civilization		(BIOL-1005/UG/P OR BIOL-1105/UG/P OR BIOL-1205H/UG/P OR ISC-2105/UG/P) AND (BIOL-1006/UG/P OR BIOL-1106/UG/P OR BIOL-1206H/UG/P)	

SUBJ	#	COURSE_TITLE	CROSS_LIST	PREREQUISTES	OTHER_INFORMATION
BSE	4394	Water & Sanitation		CEE-3104/UG/P	
CEE	3104	Intro Environ Engr		CHEM-1035/UG/C- AND CHEM-1045/UG/C- AND (MATH-1026/UG/C- OR MATH-1206/UG/C- OR MATH-1206H/UG/C- OR MATH-1226/UG/C- OR MATH-2016/UG/C- OR MATH-2024/UG/C-) AND (PHYS-	A grade of C- or better required in pre-requisites.



SUBJ	#	COURSE_TITLE	CROSS_LIST	PREREQUISTES	OTHER_INFORMATION
				2305/UG/C- OR PHYS-2205/UG/C- )	
CEE	4554	Natural Disasters			Prerequisite: Senior Standing Required
CSES	3444	World Crops & Systems	HORT3444		Junior standing required.
ECON	4124	Growth and Development		ECON-2006/UG/P AND (ECON- 2025H/UG/P OR ECON- 3104/UG/P)	
ECON	4135	International Economics	AAEC4135	ECON-3104/UG/P OR ECON- 2025H/UG/P	
ECON	4136	International Economics		ECON-3204/UG/P OR ECON- 4204H/UG/P	
ENGE	1644	Global STEM Practice			
ENGL	1644	Intro to World Literature			Also approved for Area 2.
ENGL	3534	Literature and Ecology		ENGL-1106/UG/P OR ENGL- 1204H/UG/P OR COMM- 1016/UG/P	Also approved for Area 2.
ENGL	3644	The Postcolonial Novel		ENGL-1106/UG/P OR ENGL- 1204H/UG/P OR	Also approved for Area 2.

SUBJ	#	COURSE_TITLE	CROSS_LIST	PREREQUISTES	OTHER_INFORMATION
				COMM-1016/UG/P	
ENGR	1814	Energy, Resrce & Envr			
ENSC	3604	Fund Environ Science		BIOL-1105// OR CHEM-1035//	
ENT	2004	Insects and Human Society			
FIN	4144	Int Fin Mgt		FIN-3104/UG/P	
FIW	2114	Prin Fish and Wildl		BIOL-1006// OR BIOL-1106//	
FREC	2124	Forests, Society & Climate			
FREC	2784	Global Forest Sustainability	SBIO2784		
GEOG	1014	World Regions			Also approved for Area 3.
GEOG	1115	Seeking Sustainability	NR1115		Also approved for Area 3.
GEOG	1116	Seeking Sustainability	NR1116	GEOG-1115/UG/P OR NR-1115/UG/P	Also approved for Area 3.
GEOG	2034	Geography of Global Conflict	IS2034, PSCI2034		
GEOG	2054	Introduction to World Politics	IS2054, PSCI2054		Also approved for Area 3.
GEOG	2064	Global Econ and World Politics	IS2064, PSCI2064		Also approved for Area 3.
GEOG	2134	Geog of the Global Economy	IS2134, PSCI2134		
GEOG	2214	Geography of North America			
GEOG	3104	Environ Prob Pop Dev			
GEOG	3254	Geography of East Asia			

SUBJ	#	COURSE_TITLE	CROSS_LIST	PREREQUISTES	OTHER_INFORMATION
GEOG	4074	Medical Geography			Pre: Junior Standing.
GEOG	4204	Geography of Resources			Junior Standing.
GEOG	4214	Gender Envi Intl Development	UAP4214, WGS4214		Pre: Junior Standing.
GEOG	4764	Internatl Development	SOC4764, UAP4764		Junior standing required.
GEOS	1024	Earth Resources, Soc, & Env			Also approved for Area 4.
GEOS	1054	Age of Dinosaurs			Also approved for Area 4.
HD	2314	Human Sexuality			
HIST	1214	History of the Modern World			
HIST	1215	Intro to World History			Also approved for Area 3.
HIST	1216	Intro to World History			Also approved for Area 3.
HIST	1224	Introduction to Latin America			
HIST	1354	Conflict Security in East Asia			Also approved for Area 3.
HIST	1515	History of Africa			Also approved for Area 3.
HIST	1516	History of Africa			Also approved for Area 3.
HIST	2054	Engineering Cultures	STS2054		Also approved for Area 2.
HIST	2114	Topics Crit Issues Euro Hist			Also approved for Area 2.
HIST	2124	Topics Crit Issues World Hist			Also approved for Area 2.
HIST	2275	African-American History	AFST2275		Also approved for Area 2.
HIST	2276	African-American History	AFST2276		Also approved for Area 2.
HIST	3394	Europe Since World War II			
HIST	3544	World War II			Also approved for Area 3.
HIST	3554	Age of Globalization			Also approved for Area 3.
HIST	3564	The Cold War			Also approved for Area 3.

<b>SUBJ</b>	<b>#</b>	<b>COURSE_TITLE</b>	<b>CROSS_LIST</b>	<b>PREREQUISTES</b>	<b>OTHER_INFORMATION</b>
HIST	3654	Arab-Israeli Conflict			
HIST	3864	Development and Hum in Africa	AFST3864, IS3864		Also approved for Area 2.
HNFE	2314	Active Transp for Health	SPIA2314		Also approved for Area 3.
HORT	2184	Plants Places Culture Globally			
HORT	3444	World Crops and Systems	CSES3444		Junior standing required.
HORT	4794	Medicinal Plants and Herbs		BIOL-1005/UG/P OR BIOL-1105/UG/P	
HTM	2454	Travel & Tourism Management			
HUM	3204	Multicultural Communication	RLCL3204		
IS	1004	Nations and Nationalities	PSCI1004		Also approved for Area 3.
IS	1024	Comp Gov & Politics	PSCI1024		Also approved for Area 3.
IS	2034	Geography of Global Conflict	GEOG2034, PSCI2034		
IS	2054	Introduction to World Politics	GEOG2054, PSCI2054		Also approved for Area 3.
IS	2064	Global Econ and World Politics	GEOG2064, PSCI2064		Also approved for Area 3.
IS	2134	Geog of the Global Economy	GEOG2134, PSCI2134		
IS	3864	Development and Hum in Africa	AFST3864, HIST3864		Also approved for Area 2.

<b>SUBJ</b>	<b>#</b>	<b>COURSE_TITLE</b>	<b>CROSS_LIST</b>	<b>PREREQUISTES</b>	<b>OTHER_INFORMATION</b>
ISE	4304	Global Issues Ind Mgt			
MINE	2114	Energy and Raw Materials			
MGT	3444	Multi Diversity in Orgs			Also approved for Area 3. Pre: Junior Standing. (3H,3C)
MGT	4314	International Management			Junior standing required.
MKTG	4704	International Marketing		MKTG-3104/UG/P OR MKTG-3104H/UG/P	Junior standing required.
MN	2104	Seapower and Maritime Affairs			
MN	4005	Leadership & Mgt/Ethics			Also approved for Area 3. Pre: Sophomore Standing.
MN	4006	Leadership & Mgt/Ethics			Also approved for Area 3. Pre: Sophomore Standing.
NR	1115	Seeking Sustainability	GEOG1115		Also approved for Area 3.
NR	1116	Seeking Sustainability	GEOG1116	NR-1115/UG/P OR GEOG-1115/UG/P	Also approved for Area 3.
PHIL	2304	Global Ethics			
PPWS	2004	Mysterious Mushrooms & Molds			
PPWS	2104	Plants, Genes, and People		BIOL-1005// OR BIOL-1105//	
PSCI	1004	Nations and Nationalities	IS1004		Also approved for Area 3.
PSCI	1014	US Gov & Politics			Also approved for Area 3.
PSCI	1024	Comp Gov & Politics	IS1024		Also approved for Area 3.

SUBJ	#	COURSE_TITLE	CROSS_LIST	PREREQUISTES	OTHER_INFORMATION
PSCI	1024H	Honors Comp Gov & Politics			
PSCI	2034	Geography of Global Conflict	GEOG2034, IS2034		
PSCI	2054	Introduction to World Politics	GEOG2054, IS2054		Also approved for Area 3.
PSCI	2064	Global Econ and World Politics	GEOG2064, IS2064		Also approved for Area 3.
PSCI	2134	Geog of the Global Economy	GEOG2134, IS2134		Also approved for Area 3.
PSVP	2044	Peace and Violence	SOC2044		
PSYC	3024	Human Behaviors Nat Environ		PSYC-1004/UG/P	Also approved for Area 3.
RED	4604	Environ & Sustain Housing			
RED	4604H	Environ & Sustain Housing			
RLCL	1004	Intro to Religion & Culture			Also approved for Area 3.
RLCL	1004H	Intro to Religion & Culture			
RLCL	1024	Judaism, Christianity, Islam			Also approved for Area 2.
RLCL	1024H	Judaism, Christianity, Islam			
RLCL	2464	Religion and Science	STS2464		
RLCL	3204	Multicultural Communication	HUM3204		
SBIO	2114	Packaging Law and Regulation		SBIO-2104/UG/P	
SBIO	2784	Global Forest Sustainability	FREC2784		
SOC	2044	Peace and Violence	PSVP2044		Also approved for Area 3.
SOC	3504	Population Trends and Issues		SOC-1004/UG/P	Also approved for Area 3.

SUBJ	#	COURSE_TITLE	CROSS_LIST	PREREQUISTES	OTHER_INFORMATION
SOC	4764	Internatl Development	GEOG4764, UAP4764		Junior standing required.
SPAN	2764	Intro Latino American Studies			Also approved for Area 2. In English.
SPAN	2774	Minority Lang & Span Context			Also approved for Area 3. Taught in English.
SPIA	2024	Community Systems Thinking			Also approved for Area 3.
SPIA	2314	Active Transp for Health	HNFE2314		Also approved for Area 3.
STS	2054	Engineering Cultures	HIST2054		Also approved for Area 2.
STS	2444	Global Sci & Tech Policy			Also approved for Areas 2 and 3.
STS	2454	Science Tech & Environment			Also approved for Area 2.
STS	2464	Religion and Science	RLCL2464		
STS	3284	Technology and Disability			Also approved for Area 2.
STS	3334	Energy and Society			Also approved for Area 3.
UAP	3344	Global Environ Issues	PSCI3344		Completion of Area 4 of CLE required.
UAP	4214	Gender Envi Intl Development	GEOG4214, WGS4214		Pre: Junior Standing.
UAP	4764	Internatl Development	GEOG4764, SOC4764		Junior standing required.
UH	2504	Discourse & Global Citizenship			
UH	2524	Nat Sci & Global Citizenship			Also approved for Area 4.
UH	2534	Desn/Arts & Global Citizenship			Also approved for Area 6.

<b>SUBJ</b>	<b>#</b>	<b>COURSE_TITLE</b>	<b>CROSS_LIST</b>	<b>PREREQUISTES</b>	<b>OTHER_INFORMATION</b>
UH	2544	Soc Sci & Global Citizenship			Also approved for Area 3.
UH	2554	Humanities & Global Citizenship			Also approved for Area 2.
WGS	3214	Global Feminisms		WGS-2264/UG/P	
WGS	4214	Gender Envi Intl Development	GEOG4214, UAP4214		Pre: Junior 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

JUD 2134 and JUD/RLCL 2414

RLCL 3214 & 3224

RLCL 1024 & One of the following: RLCL 1034, 1044, 2124, or 2464

HUM 1134 & Either HUM 1214 or HUM 1324

RLCL 1024 & Either RLCL 2134 or 2414

RLCL 1034 & RLCL 3024

HUM/SOC 2514 & RLCL 2124

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

TA 2014 and 2024

WGS 1824 and WGS 2224

### **Area 3: Society and Human Behavior**

GEOG 1004 and GEOG 1014

PSYC 1004 and SOC 1004

PSYC 1004 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

MATH 1014 and MATH 1025

MATH 1015 and MATH 1025

MATH 1016 and MATH 1026

MATH 1025 and MATH 2015

MATH 1014 and MATH 1016

1 of MATH 1016 or 1205 or 1025 or 1225, 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 1004 or SOC 1004. 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 1524: Business Calculus.

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 or Math 1225, 1226. 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 & Cinema 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 and Environment**

Students in the College of Natural Resources and Environment 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

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:

(Majors in the College of Science and most majors in the College of Liberal Arts and Human Sciences 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 23) and consult with your advisor.

For further information:

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