# University of Kentucky <br> University Studies Program External Review Committee Final Report 

Submitted by the University Studies Program External Review Committee

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## 1. Prologue

### 1.1 Introduction

In July of 2005 the University Studies Program (USP) External Review Committee (ERC) received an amended charge to generate a series of guidelines and ideas, in an abbreviated document, that would serve as an intellectual springboard for further discussion about reform and revitalization of university studies. That document, now commonly referred to as the DeSantis Report (http://www.uky.edu/gera/readings.htm), was submitted in early October, 2005 to Phil Kraemer, Associate Provost for Undergraduate Education; Connie Ray, Vice President for Institutional Research, Planning \& Effectiveness; and Ernie Yanarella, Faculty Senate Chair. In that report it is mistakenly said that the committee received its original charge in February, 2004, but the committee was not convened and charged until February 2005.

The DeSantis Report called for the establishment of a set of core learning outcomes which would allow for an articulation of the skills and knowledge desired for all graduates of the University of Kentucky, regardless of major. The responsibility of that committee was to neither indict nor endorse department-specific course offerings in university studies, nor to pick or pan particular models for implementing change. Rather, the essential message in the DeSantis Report was that a coherent framework for describing these shared outcomes must be conceptualized before implementation issues can be sensibly debated.

At the time the DeSantis Report was completed, the ERC was under the impression that the report was going to be used to stimulate discussion within a small, working committee, amorphously designated the "implementation committee" in that original report, but that specific committee never materialized. Instead, the committee on General Education Reform and Assessment (GERA) was formed and charged, in part, with "planning and coordinating a campus-wide conversation about strengths and weaknesses of the present University Studies Program."

GERA sought to fulfill that charge by organizing and facilitating a series of campus forums dedicated to a discussion of the five core learning outcomes listed in the DeSantis Report (11/21/2005 GERA minutes). It was eventually decided that the ERC would be asked to "incorporate the forum information into a final report, which would include
learning outcomes, possible conflicts or problems, a timetable and information on how the next committee (dealing with implementation, perhaps), should proceed" (01/23/06 GERA minutes). Ultimately, GERA convened fifteen campus and community forums to discuss the learning outcomes present in that original document. Minutes of all GERA meetings are available at http://www.uky.edu/gera/meetings.htm and summaries of all the forum discussions are available at http://www.uky.edu/gera/calendar.htm.

This document is our response to GERA's request for a post-forums revision of the original DeSantis Report. The revision process began once the first forum was held, in so far as ERC members began attending forums and reviewing the posted on-line forum summaries. Additional summaries of forum notes were created by ERC members and discussed at an all-day retreat on March 25, 2006 and again during meetings held in April of 2006, after all forums had been completed.

### 1.2 A Question of Language

In a presentation given to the Association of American Colleges and Universities, Dr. Stephen Bowen, former Provost and Vice President for Academic Affairs at Bucknell University, and now Dean of Emory University's Oxford College, argues that knowing what to call the general studies program you have or aspire to have is important to "improve understanding of and support for the curriculum," as well as for "sharpening the focus on curricular goals for assessment of student learning outcomes." He reported twelve different names that are common (most popular was just "general education", almost seven times more popular than "core curriculum", which was the nearest competitor), and twenty-one others that are in use, including "The Miami Plan", the "Marshall Plan", and U.K.'s own "University Studies Program."

Bowen notes that the use of the term 'liberal arts' to describe such a program is potentially problematic, perhaps wrongly suggesting a political agenda, and risks making the sciences feel excluded. The University of Maryland (below) apparently attempted to head off just this sort of conundrum by referring to their program as a "liberal arts and sciences" core. But even the language of "core" can be confusing, perhaps just meaning that the curriculum is bound together by a single set of coherent principles, or maybe referring to a set of core courses that all students take.

Similar concerns over language and intent surfaced in the forum vetting process, both because of the use of the word "core" in "core learning outcomes" and because of the reflective way in which these outcomes were stated in the DeSantis Report. This language was in no way an implicit endorsement of a liberal arts education that somehow excludes or mitigates the essential roles of mathematics and the laboratory sciences in deference to the humanities or the social sciences. Neither was the use of the word "core" a suggestion that the only curricular model appropriate for giving expression to those outcomes was one with a common set of courses. No curricular models are discussed at all in that original document or in this revision.

Still, to intelligently have the discussion about revision and reform some choice of language is necessary and the less encumbered, somewhat generic tag of "general studies" is used in the remainder of this document. More meaningful, more U.K. specific language will undoubtedly emerge as this important and historical process of reform continues to evolve.

Finally, the "core learning outcomes" discussed in the original DeSantis Report are perhaps better called "curriculum objectives" and that language has been adopted in this revision. Each curriculum objective, as before, is followed by student learning outcomes that are particularly related to that objective and which can, in theory, be made operational, allowing for program-level assessments. While curriculum objectives are common among U.K.'s benchmarks (see the Appendix B), specific, assessable learning outcomes are not, and this is an important way in which U.K. is distinguished in the current reform effort.

### 1.3 Summary of Changes

The forum process produced myriad suggestions for sharpening the language used in the original document, for restructuring some of the key ideas, for including issues and areas that appeared to have been ignored, and for removing comments that were unnecessary or prone to misinterpretation. A summary of the essential changes to that original document is given below.

- In the original document there were five principles or broad learning outcomes discussed (see Appendix A). These five became four when original outcome number five was combined with outcome two as was often suggested in the forum discussions. In addition, original outcome four was found to be on a different conceptual level than the others, also mentioned during the forum vetting process, and the spirit of this outcome became the overall organizing statement for all the others. The learning outcomes under the remaining three principles were revisited, revised and restated, as per very many suggestions from the forums, and as a result of significant new discussions within the ERC.
- The language of "core learning outcomes" has been replaced with "curriculum objectives," where appropriate, and each objective is followed with a list of learning outcomes that are especially relevant to that objective.
- A new outcome was added to address basic skills. As witnessed in the forum discussions, and in email exchanges with faculty, the phrase "basic skills" is used to mean different things within the university community. Regardless of the ambiguous use of the phrase, faculty often tied the success of any new general studies program to a proper treatment of basic skills and some even had the perspective that university studies should be devoted entirely to basic skills. Therefore, the committee felt that it was important to speak clearly to the issue.
- A recommendation has been added which calls for the University of Kentucky to embrace some of the innovative assessment strategies and software that are being employed successfully at other major universities. Clearly stated learning outcomes that are assessable, as well as a coherent rationale for the overall general studies program, are mandates of the Southern Association of Colleges and Schools (SACS) and have to be an important part of what happens next.
- Finally, specific recommendations for the next phase in the reform process are given and potential problems are noted.
- As mentioned above, we do not offer any specific recommendations with respect to curricular models. The ERC felt that it was too soon to discuss specific models as formal recommendations, but recognizes that this is a critical part of the next phase. Controversy over this or that particular model could serve to distract attention from the primary issues that this document attempts to address. It is our understanding that specific curricular models, once conceptualized and vetted by the faculty, will be brought to the Senate from the Associate Provost's office.


## 2. Curriculum Objectives and Learning Outcomes

### 2.1 Introduction

In the months since the ERC received its original charge, the University of Kentucky constructed and circulated an ambitious Top 20 Business Plan that was supported by the State's legislature with nearly 25 million dollars in new operating money for the University. That document speaks clearly to the importance of undergraduate education at U.K. Specifically:
"To reach national prominence by 2020 ... UK must invest more in undergraduate education ..." and resolve to "improve programs and services that have an impact on the undergraduate experience and improve retention and graduation rates: recruitment and admissions, advising, the University Studies Program (the general education component of the bachelor's degree), student services, and student life activities" (PF4 page 7).

In an effort to catalyze a response to this challenge and articulate the responsibility of the University to the general education of all undergraduates, the committee has agreed on four curriculum objectives that are essential for producing 1) a responsible and enlightened student body capable of responsibly participating in their diverse and democratic culture, and 2) a progressive and forward thinking university that will become our benchmarks' standard of excellence.

The committee strongly recommends that these four objectives serve as the guiding principles in restructuring the University of Kentucky's general studies curriculum. Our position is that simply adding new courses or subtracting old ones, without a firm commitment to such a foundation, will only produce an increasingly disconnected, fragmented, and unsatisfying experience for both students and professors.

This idea of developing a general studies curriculum based on a collection of focused guiding principles is not a new idea in the larger community of universities. Miami University of Ohio, for example, developed their innovative and successful "Miami Plan" (see http://www.units.muohio.edu/led/files/MP Booklet info.pdf) in exactly this way, as have many of our benchmark institutions (see Appendix B). Our own University Studies Program was originally conceptualized around seven "intellectual skills":
a) To communicate effectively in both spoken and written languages.
b) To deal with data and with mathematical symbols.
c) To think critically - to abstract, analyze, synthesize and evaluate, and to understand the nature of thought.
d) To learn on one's own.
e) To employ the scientific method.
f) To create and to express creativity.
g) To adapt to new circumstances (that is, to apply learning).
(see p. 4 of the final report from the "Committee on General Education at the University of Kentucky", appointed in September of 1982). Aside from some critical updates in both language and focus to reflect the unique challenges of the $21^{\text {st }}$ century, many of the same outcomes that are desired now, were valued nearly 25 years ago.

During the forum process the DeSantis Report was presented as having called for "distribution models" to be abandoned, in favor of "outcome-based" models, and this is not strictly true, or at least potentially confusing. This document, consistent with the original DeSantis Report, calls for the development of a coherent framework of curriculum objectives and learning outcomes before implementation issues are debated. Any rational implementation will have to consider "distribution" on some level both to
ensure an appropriate breadth to the program, as well as to be in compliance with SACS. "Distribution" is not incompatible with a focus on outcomes; neither are models that are focused on distribution inherently hard to assess - in fact, this is the most common model among our benchmarks. Our position is simply that the value of a general studies program should not be judged solely on how widely it is distributed across various intellectual disciplines, but rather on how effectively it addresses fundamental curriculum objectives.

In the section that follows, each of the four curriculum objectives is discussed and specific, measurable learning outcomes associated with each are presented. When appropriate, examples are offered of courses or programs that have already been piloted or adopted on campus, as a way of clarifying the intent of these goals. The committee underscores the importance of realizing that these examples are not intended to be exhaustive or simple panaceas to the current problems with USP. Neither do we intend to say or imply that there is a dearth of such courses on campus. During the forum process we heard about many examples of outstanding courses which, on first glance, already address some of the goals suggested by the four curriculum objectives. The initiatives that are mentioned are broad initiatives and are meant only to frame the larger discussion and facilitate the next critical phase of reform.

### 2.2 Overarching Principle and Associated Learning Outcomes

The External Review Committee asserts that the new general studies program at the University of Kentucky should be guided by the following organizing statement or overarching principle:

## Overarching Principle

The University of Kentucky prepares its undergraduates to be life-long learners, actively engaged in the global community of the $21^{\text {st }}$ century.

In many regards, today's university curriculum still looks strikingly similar to that offered a century ago. The principle does not imply that the study of such classical and traditional knowledge has become obsolete. It is instead to assert that political, economic,
technological, and cultural changes at the turn of the $21^{\text {st }}$ century have placed additional demands on our university that we are obligated to meet. If we as a university are to prepare our students to be functioning members of a democratic society, we must give serious consideration to the new types of knowledge and skills they will need to succeed. The following four curriculum objectives represent an attempt at broadly capturing the knowledge and skills that the ERC deems essential for all University of Kentucky graduates, regardless of their major.

First Curriculum Objective: The new general studies program should provide students with essential skills.

Learning Outcomes: The first curriculum objective is designed to prepare all students to:

- Communicate effectively, both in writing and orally, using generally accepted methods for presentation, organization and debate.
- Identify the role that mathematics plays in the world; and demonstrate and interpret mathematical skills necessary to be an informed, constructive, and reflective citizen.
- Critically evaluate the quality of statistical results that permeate our daily lives, competently perform and interpret basic data analyses; calculate and interpret constructs associated with confidence, risk, and inference.
- Evaluate costs, benefits, and the limitations of resources; make informed choices as consumers, producers, savers, investors, and citizens; understand the basics of income distribution, interest rates, inflation, unemployment, investment, and risk.
- Examine and apply the basic scientific principles which govern natural systems to critically evaluate the consequences of human activity on local, regional, and global natural systems.
- Analyze and critically evaluate the impact of health choices from both a personal and societal perspective.
- Analyze, interpret, and critically evaluate messages that images contain --- in print media, television, film, advertising, the internet, and the museum.
- Locate, retrieve, evaluate, analyze, manipulate, and use information encountered in a variety of formats.

Basic skills were not mentioned explicitly in the original DeSantis Report, but they were discussed in every forum, only with many different meanings of the phrase. In this report three interpretations are distinguished:

- Preparatory skills - these are skills, or competencies, that one can argue should have been acquired in high school and, if absent, require remediation once the student is at the University of Kentucky.
- Prerequisite skills - these are certain discipline-specific, higher-level competencies that need to be completed before embarking on a particular major (e.g., calculus).
- Essential skills - these are essential competencies that equip citizens to participate effectively in the $21^{\text {st }}$ century, basic competencies that one may not be expected to have acquired in high school, but which should be resident in every University of Kentucky graduate, regardless of major.

Of these three, "essential skills" is the only interpretation of basic skills, in the ERC's estimation, that should fall within the purview of general studies. That is not to say that the new general studies program should not be carefully coordinated with majors, which of course it should. But the majors should not dictate the content of that curriculum. If these essential skills are taught in the new general studies program, they would indeed improve, not encumber, preparation for all major programs offered at the University of Kentucky.

The specific list of learning outcomes that are given emerged as "essential skills" from both the committee's deliberations and the forum process. Certainly, there are a host of other skills that should be required for particular majors and those prerequisite skills should be dealt with as a part of the major tracks. It is the position of our committee that
preparatory skills should not be the explicit responsibility of the university. Better communication with the high schools and automated competency exams that are in place at other universities (e.g., James Madison) should be explored as a way of dealing with this important issue.

The committee also recognizes that majors have very little room for courses to be added and, hence, in the past it has been important for some courses in general studies to double as prerequisite courses. The current USP program has been criticized already for being too complex. We are not suggesting that either of these difficulties simply be ignored. Nor are we necessarily suggesting that every learning outcome specified above be taught in a separate course. This will depend on the particular nature of the skill being addressed, the availability of expert faculty in the corresponding discipline, and the outcome of a difficult, thoughtful discussion about what would be gained and lost when more than one skill is addressed in a single course.

We simply encourage discussion, open-mindedness and wit when these issues are addressed as this reform process moves forward. The demands of majors will have to be balanced with the responsibility to equip our graduates with essential skills, and both of these have to be balanced with the recognition that there are real time and space limitations within the curriculum. Compromises will be necessary, and we will need to be open to new ways of delivering on this responsibility. For example, very basic consumer and health issues are already addressed in UK 101, which is an excellent model of how a common course can be conceptualized, administered and taught by a diverse group of instructors. One can imagine a course like UK 101 being developed and deployed with the appropriate academic depth and focus on a subset of the listed skills.

Second Curriculum Objective: The new general studies program should enable all students to think from multidisciplinary perspectives.

Learning Outcomes: The second curriculum objective is designed to enable all students to:

- Synthesize materials from multiple disciplines.
- Integrate ideas from various disciplines.
- Apply theories and methods across multiple disciplines.
- Learn from multiple and competing perspectives.

The organizational structure of most traditional American universities forces both professors and students into isolated and myopic departments. While on some levels this reflects the strength and disciplinary expertise of a Rank I Research Institution, it can also stifle transcendent and intellectually expansive thinking and promote the politics of "departmentalization."

What does this mean for general studies? Instead of proscribing which specific "history," "psychology," "art," and "mathematics" courses students must take, we want first to consider what we want our students to learn and then decide how that knowledge can best be transmitted. Sometimes, not always, the answer to both of these questions rests on the use of multidisciplinary education strategies where big questions are asked and answered from a plurality of perspectives and epistemologies. By pursuing this goal, students will confront learning experiences that are vastly more integrative, complex and stimulating.

Some examples of current and former courses or programs at the University that have attempted to address the listed learning outcomes include the following:

- "World Food Issues," "Space, Place and Culture," and "Technological, Cultural, and Social Implications of Nanotechnology" (tracks currently offered in the Expanded Honors Program).
- "Ways of Knowing," "Journeys," "Communities," and "Ecology" (courses from a previous curriculum, the Modern Studies Program).
- "A\&S 300 - Violence" (an interdisciplinary course created in 2001 for the Honors Program that afforded students a variety of perspectives on violence).
- "Ecology" and "Journeys" (courses in a proposed Expanding Horizons Program).
- Global Studies Program.

The committee recognizes that this outcome is fundamentally challenging. Forum participants noted that team teaching has been tried and often fails as university faculty
are too busy to adequately coordinate content and the same coordination issues plague courses that are supposed to be grouped or paired, as in the old cross-disciplinary requirement of USP. Likewise, some topics will benefit more from a multidisciplinary approach than others and some topics may be best taught by the experts in a particular field.

Still, the committee encourages the university to explore multidisciplinary ways of teaching at least some part of the general studies curriculum. On the one hand, this may mean that a specific course needs to be developed, or an existing course has to be transformed so that multiple perspectives can be brought to bear on a particular set of issues, perhaps using a well-coordinated, multidisciplinary team of instructors. On the other hand, this may simply require that faculty model their own complexity and breadth in the classroom by making it a priority to discuss particular topics from multiple perspectives. Either way, the point is to communicate and model the importance of multiple perspectives on the formulations and, when applicable, the solutions and interpretations of important problems. Such a course, if encountered early in the curriculum, could serve as a so-called "anchor" course that provides a common experience for entering students.

Third Curriculum Objective: The new general studies program should engage students in processes of inquiry, analysis and reflection.

Learning Outcomes: The third curriculum objective is designed to enable all students to:

- Evaluate assumptions and question ideas through basic critical reflection and independent thought.
- Analyze, compare and evaluate different ways of knowing produced by different, and at times, incongruent, knowledge claims.
- Generate new knowledge by applying research processes and methods.

The often cited Boyer Commission report, Reinventing Undergraduate Education: a Blueprint for America's Research Universities (1996), identified the unique opportunities that Rank I Research Institutions have to educate their undergraduates:


#### Abstract

WHAT IS NEEDED NOW IS A NEW MODEL OF UNDERGRADUATE education at research universities that makes the baccalaureate experience an inseparable part of an integrated whole. . . . There needs to be a symbiotic relationship between all the participants in university learning that will provide a new kind of undergraduate experience available only at research institutions. Moreover, productive research faculties might find new stimulation and new creativity in contact with bright, imaginative, and eager baccalaureate students, and graduate students would benefit from integrating their research and teaching experiences (7-8).


Inspired by Boyer's ideas, the ERC believes that the University of Kentucky -- in light of its aggressive Top 20 Business Plan -- has a unique opportunity to form a symbiotic relationship between its research agendas and its pedagogical commitment to undergraduate students. While it may be largely the responsibility of the university's major programs to develop this relationship along methodological lines, it is the responsibility of the general studies curriculum to capture and communicate those facets of inquiry, analysis, and reflection that motivate and sustain successful research agendas at a Rank I Research Institution.

It is in this sense that the general studies curriculum needs to encourage faculty to bring their research into the classrooms where students may be inspired by their quest for new knowledge, directed by a sense of methodological rigor, and informed by their findings and conclusions. By doing this, we will not only highlight what is special about the undergraduate experience at the University of Kentucky, we will also foster the spirit of curiosity in our students and equip them with the tools and methods they will need to address the perplexing questions and paradoxes that await them in their post-college lives.

While we as a University want to help students develop their own stable foundation for life, we also want them to be critical consumers of ideas and assertions. In a world where science, theology, business, health, pop culture, and popular consensus regularly make claims with absolute certainty, universities need to prepare and equip students with the knowledge and skills needed to evaluate the merits of those claims. Students, once empowered with this ability, can then decide what ideas and practices in their lives to reaffirm, reform, or reject.

Whether recognition of the ambiguity of knowledge gives way to critical thinking or the reverse (upon reflection), the ERC contends that this process is at the heart of what faculty do at a Rank I Research Institution and needs to be modeled and encouraged in the classroom. For convenience, this process of inquiry, analysis and reflection will be called "critical reflection," although this phrase is encountered in the literature with a variety of meanings.

The committee recognizes that many of our best teachers already demonstrate the spirit of critical reflection in their classes and the University has already started to address this broad learning outcome with institutional initiatives such as the Freshman Discovery Course and the Living/Learning Centers. It is our hope, however, that this particular skill will serve as a guiding principle and significant criteria in reshaping USP.

This committee further encourages the university to explore the possibility of:

- a Senior Capstone course that is major specific and would focus on inquiry-based learning. This would also serve as an ideal site for program assessment.
- a Senior Discovery Seminar providing any student, regardless of discipline or major, with the opportunity to explore inquiry-based learning in any of the three major areas of knowledge, e.g., humanities, social sciences, and natural sciences. Ideally, the topics explored in these seminars would encourage civic engagement and be directed at improving the human condition in the Commonwealth.

Both the Capstone Course and the Senior Discovery Seminar might also be effective strategies for bridging the divide that now exists between students' first two academic years (when general studies courses are disproportionately taken) and their last two or three years (when major courses are disproportionately taken).

Fourth Curriculum Objective: The new general studies program should empower students to engage as participatory citizens in a dynamic multicultural world.

Learning Outcomes: The fourth curriculum objective is designed to enable all students to:

- Compare and contrast myriad cultures, religions, languages, and customs.
- Critically examine the power relationships that shape cultural practices.
- Examine and evaluate changing ethical principles that are associated with new knowledge and technology.
- Cultivate and apply their own worldview.

Often students who enter our University's front doors have not had the intellectual freedom or the needed stimulation to understand the complexity of their own society, let alone that of others around the world. A general studies curriculum, therefore, must empower students to not only uncover the complexity of their own lives but to be curious and knowledgeable about the multicultural world outside of our Commonwealth's borders. We must also ensure that our students are prepared, intellectually and ethically, to develop their own informed worldview, and once equipped, to confront pressing questions of identity: "who they are," "what their rights and responsibilities as citizens of their community, state, nation, and world are," and "how they can be sensitive to multicultural differences."

Some examples of current or former courses or programs at the University that have attempted to address this learning outcome on some level include the following:

- "Ways of Knowing," "Journeys," "Communities," and "Ecology" (courses from a previous curriculum, the Modern Studies Program).
- "Ecology" and "Journeys" (courses in a proposed Expanding Horizons Program).
- Global Studies Program.
- The current USP cross-cultural requirement.

Students should be challenged to explore their own identities, deepen their understanding of different cultures, confront stereotypes they may hold, and imagine how they may be viewed by others. Service learning provides one means for engaging students in participatory citizenship within a broader multicultural community. The Commonwealth is especially well suited for this task, with opportunities to bring students into contact with seasonal migrant workers who harvest crops in Central Kentucky, with international doctors who care for the sick in Eastern Kentucky, and with international business people who manage one of the world's most successful automotive facilities not far from campus, etc. The committee encourages the university to explore requiring service learning opportunities or similar exposure of all undergraduates and to consider rethinking the conventional three-credit hour curriculum structures if necessary to make this work.

The committee also suggests that the university promote and expand its current Study Abroad Program. Every undergraduate student should be strongly encouraged to study for at least one semester outside the borders of the United States, preferably in a nonEnglish speaking country.

## 3. The Next Steps: Recommendations and Timetable

With a set of curriculum objectives and their associated student learning outcomes as a unifying base from which to work, the question of what happens next has to be addressed. An application on behalf of the University to participate in the Association of American Colleges and Universities (AAC\&U) Summer Institute on General Education was accepted in March of 2006. As a result up to eight faculty and administrators will be spending an intense week in Washington, D.C. in early June, 2006 engaged in a discussion of general education reform, including attention to planning and improving
assessment of general education outcomes and programs. This will be a prime opportunity to learn both from the experts and from other colleges and universities that are also undergoing significant reform and a prime opportunity to launch an "Implementation Planning Phase". Toward this end, we offer the following four recommendations.

Recommendation 1: The committee recommends that the four curriculum objectives and their associated learning outcomes serve as the guiding principles in restructuring the University of Kentucky's general studies curriculum.

Recommendation 2: The committee recommends that an Implementation Planning Phase be initiated with the June AAC\&U Summer Institute which includes but is not limited to the following:

- The formation of an Implementation Planning Oversight Committee (IPOC), charged with the unbiased facilitation of this important phase, as well as the construction of a specific set of curricular recommendations to be taken forward through the appropriate University channels.
- A series of summer 2006 Reform Workshops at U.K. designed to communicate what was learned at the AAC\&U Institute and to provide a venue for focused parallel discussions on:
- Basic curricular models: pros and cons.
- Essential skills: which are really essential and how can we teach them?
- Assessment strategies: what will work for U.K.?
- Impact of change on major programs.
- Impact of change on graduate programs.
- Alternate and fair TA funding models.
- Feasibility of faculty development programs related to a new general studies program.
- Disciplinary knowledge: who is qualified to teach what and why?
- Impact on transfer credits.
- The coordination of any curriculum restructuring with $\mathrm{P}-12$ initiatives in the Kentucky public schools.
- A series of fall 2006 Campus Conversations designed to bring all faculty up to date with respect to what was proposed in the summer workshops and to allow for critical feedback. One possible strategy:
- Step 1 - Arrange a series of "town hall" meetings on campus designed to communicate all proposals emerging from the summer workshops.
- Step 2 - Ask that representatives of each college (e.g. members of educational policy committees) visit every department in turn, presenting the proposed models, assessment strategies, etc.
- Step 3 - Solicit a formal, space-limited departmental response and request that each college organize those responses and submit to IPOC for review.
- Step 4 - Require IPOC to issue a response to each college before the summer of 2007.
- A formal curriculum proposal from IPOC, completed by the fall of 2007. This is the proposal that will subsequently be taken forth to the appropriate governing bodies at the University.

Recommendation 3: The committee recommends that an Implementation Phase be initiated once the formal proposal from IPOC has been prepared. As a first step in this phase we recommend that the Office of the Associate Provost for Undergraduate Studies take on the responsibility of shepherding the new curriculum proposal through the required channels. If these channels are all negotiated successfully, we would suggest that the fall of 2008 be taken as the goal for having the new program up and running. This time schedule may simply be too aggressive, so these projected times should be seen as goals only.

This committee has resisted the temptation to endorse particular models and strategies, recognizing that these discussions belong under the auspices of the implementation planning phase and are all worthy of more debate than time allowed for this report. However, the issue of assessment deserves a separate recommendation.

Recommendation 4: The committee recommends that the University of Kentucky embrace some of the innovative assessment strategies and software that are being employed successfully at other major universities

It is no longer enough to say "assessment just can't be done." It is being done right now by James Madison, Alverno State, Rose Hulman, and at some of our benchmarks (e.g., University of Maryland and University of Wisconsin). U.K. should respond to the constructive pressure from SACS and strive to develop an innovative assessment model in sync with our new general studies curriculum. Indeed, one of the primary advantages of an outcomes-based curriculum is the opportunity for meaningful assessment. U.K. has an excellent Office of Assessment to lead an open discussion about the possibilities.

## 4. Possible Conflicts and Problems: Discussion and a Final Recommendation

This report is not intended to be the last word, but only one in an on-going dialogue that addresses the University's obligation to all undergraduate students. Like other committees before this one, the ERC is committed to the mission of preparing all students who come to the University of Kentucky for life in the $21^{\text {st }}$ century. For this mission to be fully recognized, however, it must be built on a solid foundation of learning outcomes. Without such a unifying base, our University Studies Program will lack unity, purpose, and commonly shared goals. As one professor reported in the self-study, "UK should not have a core that is a façade. . . 30 courses under X rubric does not represent a core" (p. 26).

Building a new general studies program for our university, however, will not be an easy task. As the same self-study highlighted, there are significant barriers to reform,
some of which have derailed previous efforts. Among the challenges that are sure to be encountered as this process moves forward are:

- Reward system that favors disciplinary efforts over general studies efforts.
- Increasing first-year enrollment.
- Budgetary decisions that tend to favor research programs over undergraduate education.
- Insufficient numbers of faculty and staff to support the transition and the curricular needs.
- Limited classroom space and an outdated infrastructure.
- Department and college debate over disciplinary knowledge and course offerings.
- College-specific structures that have hardwired TA lines to USP courses.
- Campus and faculty inertia following from years of repetitive practices.
- Faculty and administrative anxiety over foundational changes and the unknowns of a new curriculum.
- University culture that values research and graduate programs over undergraduate education.
- Course demands of majors.

This is not to imply that change will not or cannot happen. This committee, in fact, is extremely optimistic about the future of the University's general studies curriculum given the current administration's commitment to reform and the passion and dedication witnessed at the forums. To help facilitate this change, the committee proposes one final recommendation.

Recommendation 5: The committee recommends that institutional commitments be made early and clearly by:

- Strongly worded statements from the President and the Provost in support of curricular reform of the general studies program.
- Articulation of a reward system for faculty who commit time and energy towards undergraduate reform.
- An unambiguous and unconditional commitment to doing no harm to graduate programs that currently depend on an intricate relationship with USP for funding.
- Commitment to realistic and honest levels of funding for reform. For meaningful and significant reform to take place, funding is a necessity. "Doing more with less" is a pedagogical anathema.

In reviewing our benchmarks' best practices and our University's past creative efforts at undergraduate reform, it has become clear to this committee that with bold leadership, an informed and enthusiastic faculty, and reasonable funding, the University of Kentucky's general studies program can become one that our benchmarks recognize, prize, and seek to emulate.

## Appendix A: Original Five Learning Outcomes from DeSantis Report

I. The new core curriculum program should better enable all students to understand their place and purpose in their ever-changing world.
II. The new core curriculum program should better enable all students to engage in the process of inquiry and reflection.
III. The new core curriculum program should better enable all students to think from multidisciplinary perspectives.
IV. The new core curriculum program should better enable all students to meet the new demands and challenges of life in the 21st Century.
V. The new core curriculum program should better enable all students to discover and examine the ambiguity of human knowledge

## Appendix B: General Education at U.K. Benchmark Institutions

Most of the following comments are taken directly from public web pages at the corresponding institution. This material is for internal planning purposes only and should not be republished as the original work of the ERC. In some cases, the information has been reformatted (e.g., lists have been bulleted) to make the presentation clearer. Information was gathered on the following universities:

1. Michigan State University
2. North Carolina State University
3. Ohio State University
4. Pennsylvania State University
5. Purdue University
6. Texas A \& M University
7. University of Arizona
8. University of California - Los

Angeles
9. University of Florida
10. University of Georgia
11. University of Illinois- Urbana
12. University of Iowa
13. University of Maryland at College Park
14. University of Michigan at Ann Arbor
15. University of Minnesota at Twin Cities
16. University of North Carolina at Chapel Hill
17. University of Virginia
18. University of Washington
19. University of Wisconsin - Madison

## 1. Michigan State

Integrative Studies is MSU's unique approach to general education, offering courses that integrate multiple ways of knowing into an enhanced appreciation of our humanity, creativity, knowledge, and responsibilities for ourselves and our world. Integrative Studies courses introduce students to college level work and important new ways of thinking.

## Academic Goals of Integrative Studies

Courses in the Integrative Studies Program help students to:

- Become more familiar with the ways of knowing in the arts and humanities, the biological and physical sciences, and the social sciences.
- Develop a range of intellectual abilities, including critical thinking, logical argument, appropriate uses of evidence and interpretation of varied kinds of information (quantitative, qualitative, text, image)
- Become more knowledgeable about other times, places, and cultures as well as key ideas and issues in human experience
- Learn more about the role of scientific method in developing a more objective understanding of the natural and social worlds
- Appreciate the role of knowledge, and of values and ethics in understanding human behavior and solving social problems
- Recognize the responsibilities and opportunities associated with citizenship in a democratic society and an increasingly interconnected, interdependent world.


## The Integrative Studies Curriculum

Students must complete at least eight (8) credits in each of the three broad knowledge areas:

- Arts and Humanities (IAH)
- Biological and Physical Sciences (ISB/ISP)
- Social and Behavioral Sciences (ISS)


## 2. North Carolina State

Rationale: The program in General Education established the foundation for a lifetime of intellectual discovery, personal development, and community service while preparing students for advanced work in various academic and professional disciplines.

## Objectives:

Through the teaching of courses offered in each of the following subject areas as well as in the delivery of the academic disciplines, the General Education program will:

- Provide instruction that enables students to master basic concepts of a broad array of the intellectual disciplines,
- Help students develop versatility of mind, an ability to examine problems individually and collaboratively from multiple perspectives, including ethical and aesthetic perspectives,
- Provide students the guidance and skills necessary to become intellectually disciplined, to be able to construct arguments that are clear, precise, accurate, and of relevant depth and breadth,
- Encourage students to take personal responsibility for their education, including the ability to find, evaluate and communicate new information, setting the stage for life-long learning.


## 3. The Ohio State University

## General Education Curriculum

The General Education Curriculum or GEC requirements for all students at the Ohio State University consist of a minimum of 110 quarter hours, some of which are to be taken in the junior and senior years. Columbus State and Ohio State faculty and administrators have worked together since 1986 to facilitate the smooth transfer of courses between the two institutions. In cases where Columbus State courses do not have direct equivalencies at Ohio State, Columbus State courses are submitted directly to the Ohio State Curriculum Committee for approval before they are
included in the transfer guides. Once approved these courses are included in the GEC lists distributed to college and department offices at Ohio State as approved courses which satisfy Ohio State GEC requirements. These courses are designated as "special" or SPL in the transfer guides.

To further demonstrate the strong collaboration between the colleges, in January 1997, the presidents of Ohio State and Columbus State publicly signed a renewed agreement which guarantees admission of Columbus State Associate of Arts and Associate of Science graduates to The Ohio State University with the same privileges and rights as students who began their careers at Ohio State. The document also offers students the opportunity to transfer to Ohio State prior to completion of the associate's degree and have equivalent Ohio State courses applied to the Columbus State degree. Such an agreement is called a "dual enrollment" agreement.

## General Education Curriculum (GEC) Requirements

(1) Writing and Related Skills

Three courses required, the third of which is to be taken in the student's major at Ohio State.
(2) Quantitative and Logical Skills One course required at a minimum level of College Algebra.. Higher levels of proficiency required for some colleges and majors.
(3) Data Analysis

One statistics course required as specified by the college and/or major.
(4) Natural Sciences

A Minimum of 20 hours of laboratory science from both Biological and Physical Sciences. There may be additional requirements for science and science based professions. Columbus State students who take NSCI 101, 102,

103 and an approved course from the biological sciences can fulfill this requirement at Columbus State.
(5) Social Sciences

Fifteen hours are required from three areas: Individuals and Groups, Organizations and Politics, and Human, Natural, and Economic Resources. A maximum of five hours is permitted from the area of your Ohio State major, but these hours may not be counted in your major.
(6) Arts and Humanities

Twenty five hours are required, including a 10 hour historical sequence, five hours in Literature, five hours in Visual/Performing Arts, and five hours in any approved Humanities discipline. Columbus State students who complete the HUM 111, 112, and 113 sequence fulfill Ohio State's international issues/non-western or global requirement, the History requirement, and the Visual/Performing Arts requirement, and is the preferred sequence for most students. Students who complete the HUM 111, 151, and 152 sequence fulfill the History requirement, and the Visual/Performing Arts requirement. Students may fulfill the Literature requirement and the other Arts and Humanities requirements from the listed Columbus State electives.
(7) Foreign Languages

All colleges at Ohio State have an International Experience requirement which may be fulfilled by completing a foreign language course at the Intermediate II or 104 level. Some colleges have not been enforcing this requirement but still list it in their degree programs and may choose to enforce it at any time. Students with limited foreign language study are strongly encouraged to take a minimum of language study through the Elementary II or 102 level while at Columbus State.
(8) Social Diversity

All students are required to take at least one course to fulfill the social diversity in the United States requirement. By choosing from ENGL 250, 251, 252, 253 or from SSCI 101 or 103 , the social diversity requirement can be satisfied, as well as the Writing and Related Skills "second course" requirement, and the Social Science's Individuals and Groups requirement.

## 4. Penn State

## Skills (15 credits)

- Writing/Speaking
- Quantification


## Knowledge Domains (30 credits)

- Health and Physical Activity
- Natural Sciences
- Arts
- Humanities
- Social \& Behavioral Sciences


## An effective General Education program enables students to:

- acquire knowledge through critical information gathering - including reading and listening, computer-assisted searching, and scientific experimentation and observation;
- analyze and evaluate, where appropriate in a quantitative manner, the acquired knowledge;
- integrate knowledge from a variety of sources and fields;
- make critical judgments in a logical and rational manner;
- develop the skills to maintain health, and understand the factors that impinge upon it;
- communicate effectively, both in writing and orally, and using the accepted methods for presentation, organization and debate particular to their disciplines;
- seek and share knowledge, independently and in collaboration with others;
- gain understanding of international interdependence and cultural diversity, and develop consideration for values, lifestyles, and traditions that may differ from their own;
- comprehend the role of aesthetic and creative activities expressing both imagination and experience.


## 5. Purdue University

(Requirements are largely college-dependent it seems. Three colleges are noted in the following.)

## COLLEGE OF SCIENCE GENERAL EDUCATION REQUIREMENT

You must complete 18 credit hours of study in the humanities, social sciences, and behavioral sciences. In specifying this requirement, the school identifies the following five areas:
I. Humanities: literature, philosophy, and aesthetics.
II. Social Studies: history or political science.
III. Behavioral Sciences: economics, psychology, sociology, and anthropology.
IV. Communications.
V. Interdisciplinary Studies.

Please note:

1. A minimum of 18 hours total is required and must be distributed as follows:
a. Two courses in the same department from either area I, II, or III.
b. Two more courses from one of the two areas (I, II, or III only) not chosen to meet Requirement 1a. These two courses do not have to be in the same department, just in the same area.
c. Two more courses from any of the five areas.
2. Courses at the 500 -level may be taken pass/not pass to satisfy the General Education requirement. Courses below 500-level must be taken for a letter grade.
3. Independent research courses are not acceptable, e.g. PSY 390.
4. If you have any questions about the General Education Requirements, please ask your advisor to help you early in your course planning.

## THE SCHOOL OF MECHANICAL ENGINEERING

(From Engineering Faculty Document 55-98, April 26, 2001; List updated April 2003)

The Purdue University School of Mechanical Engineering curriculum includes a strong component in General Education to provide students an integrated and wellrounded program in the humanities, fine arts, and social sciences. Following completion of the required freshman year courses in written communications (ENGL 101) and oral communications (COM 114), each student, with the assistance of an academic advisor, selects six three-credit hour courses to satisfy the General Education component of the ME curriculum.

## Program Requirements

1. Credit Requirements - A minimum of 18 credit hours in approved humanities and social sciences electives are required. (A list of preapproved courses is appended).
2. Required Electives - Of the 18 credit hours total, 6 credit hours must satisfy the following required elective categories.

- Economics Elective (3 crs.) - any approved economics course will satisfy this elective.
- World Affairs and Cultures-WAC (3 crs.) - any approved course with strong international or cultural emphasis will satisfy this elective. (Preapproved WAC electives are shown in Bold on the General Education Elective list.)

3. Depth and Breadth Requirements - Within the 18 credit hours, both depth and breadth must be demonstrated.

- Depth - A minimum of 6 credit hours must be taken in at least one department. This insures depth in at least one department.
- Breadth - No more that 12 credit hours can be taken in one department. This insures exposure to at least two different departments.

4. Non-Introductory Course Requirements - At least 6 credit hours must come from non-introductory courses.

- Non-Introductory Courses (Minimum of 6 credits) - Preapproved courses at the 300 -level or above, or lower-division courses with a required prerequisite in the same department.
- Introductory Courses (Maximum of 12 credits) - Preapproved lower-division ( 100 or 200 level) courses with no prerequisite in the same department. All


## Introductory Courses are indicated by an asterisk (*).

5. Foreign Language Requirement - If a foreign language course is used to satisfy part of the requirements, at least 6 credit hours must be taken in the same language (e.g., to receive credit for SPAN 101 you must complete SPAN 102). Also, credit is not allowed for language courses in the student's native tongue(s), although literature, culture, drama and related courses are allowed.
6. Integrated Program - To encourage an integrated program, no more than 6 credit hours of general education electives can be taken in one semester.
7. Consideration of Exceptions - The appended list of preapproved general education electives, while extensive, is not exhaustive. To have an unlisted course considered for approval, a written request should be submitted to Prof. Jones in ME 222.

Selection of a suitable set of humanities and/or social science courses presents some students with a challenge. It is difficult to select 6 courses from among several hundred; a frequently used method is to pick a course which has a reputation for being easy, requiring minimal work, and guaranteeing a high grade. Selecting approximately 15 percent of the total credits required for graduation by this method is not wise. The guidelines listed below are intended to assist in planning an effective General Education program:

1. Explore Areas of Interest - The student should explore different areas in the humanities, fine arts, and social sciences.
2. Develop a Coherent Program - The program should have a unified framework and constitute a coherent educational experience. You may want to consider getting a minor in one of the departments listed below. If you are interested in a minor, please see the offering department for details of the requirements.
3. Non-Approved Subjects - Courses treating subjects such as accounting, management, personal finance, personnel administration, band, and ROTC may be of value to mechanical engineering students but do not fulfill the purpose of the General Education program.
4. Grade Options - The pass/not pass option may not be used for any courses required for graduation. All courses counted toward any graduation requirement must be taken for a grade. However, any extra courses not being utilized for graduation may be taken pass/not pass.

## THE SCHOOL OF MATERIALS ENGINEERING

## General Education Program

## Rationale

Humanities and social sciences courses encompass the breadth of human experience and culture, both past and present, including individual behavior, social and political structures, aesthetic values, modes and dynamics of communication, philosophical and ethical thought, and cognitive processes. Such courses are an integral part of all engineering curricula which complements technical and professional content by enabling engineering students to appreciate the world in which they live and work, and to contribute as both educated members of society and aware, ethical professionals. Humanities and social sciences courses also provide a framework for rational inquiry, critical evaluation, judgment and decisions when dealing with issues that are non-quantifiable, ambiguous, or controversial. Of equal importance, they offer opportunities for engineering students to develop interests and insights that guide, enrich and expand their perceptions of the world they live in.

## Requirement

All undergraduate students in the Schools of Engineering are required to complete a general education program of 18 credit hours in approved humanities and social sciences electives. Each school of engineering may have slightly different requirements so be sure you follow the requirements for Materials Engineering as detailed below. Students are strongly encouraged to develop a coherent general education plan as part of their MSE plan of study and distribute their general education credits throughout their academic program. Revised General Education Program requirements were approved by the faculty of the Schools of Engineering in April 2001. Students who entered Purdue Engineering in Fall 2001 or later must follow these new requirements. Students who entered Purdue Engineering prior to Fall 2001 have the option to follow the new requirement or the old requirements in effect at the time they entered Engineering.

## New General Education Requirements

1. 18 credit hours must be obtained from course offerings in the following departments:

- Agricultural Economics
- Audiology and Speech Sciences
- Child Development and Family Studies
- Communication
- Economics
- English
- Foreign Languages and literatures
- History
- Interdisciplinary Studies
- Philosophy
- Political Sciences
- Psychological Sciences
- Sociology and Anthropology
- Visual and Performing Arts

Any course offered by these departments is allowable, provided that it is open to students in the offering department and is not focused primarily on professional training, natural science or mathematics.
2. At least 9 credit hours must be drawn from courses offered by the following departments:

- Agricultural Economics
- Economics
- Communication
- Foreign Languages and Literatures
- History
- Interdisciplinary Studies
- Philosophy
- Political Sciences
- Psychological Sciences
- Sociology and Anthropology

3. At least 6 of the credit hours must be taken in the same department and a maximum of 12 hours may be taken in any one department.
4. At least 6 of the credit hours must come from courses at the 300 -level or above, or from courses with a required prerequisite in the same department.
5. If a foreign language course is used to satisfy part of the requirements, the student must take at least 6 credit hours of the same language. Credit is not allowed for language courses in the student s native tongue(s), although literature, culture, drama and related courses are allowed.
6. Credit by examination or granted credit (e.g. advanced placement credit), conditioned solely at the discretion of the awarding department, can be used to satisfy any part of the requirement.
7. No course may be counted more than once for the requirement, even if the offering department allows it to be repeated for credit.
8. Individual schools may impose requirements in addition to those previously stated, but may not require a specific course as part of the general education program. The School of Materials Engineering does not impose any additional requirements.

## 6. Texas A\&M University

The University Core Curriculum at Texas A\&M University assures that all undergraduate programs provide for breadth of understanding. The Core Curriculum emphasizes competence in the process of learning, the capacity to engage in rigorous and analytical inquiry, and the ability to communicate clearly and effectively. It supports the development of extensive knowledge about and appreciation for our cultural heritage, our social and moral responsibilities, and our interactions with the economies and cultures of the international community. The University Core Curriculum acts to enrich and broaden the University's tradition of providing thorough preparation in each student's academic major.

## Specific Requirements

In addition to the University Core Curriculum and degree specific requirements, Texas A\&M has criteria that must be met by all students in order to receive a degree, see Requirements for a Baccalaureate Degree.

The ability to communicate through the use of the spoken or written word requires the development of speech and writing skills.
(1) Communication (6 hours)

Without knowledge of mathematics, the language of science; and logic, the art of critical inquiry; it is not possible to understand or participate in the development of knowledge.
(2) Mathematics (6 hours, at least 3 of which must be in mathematics)

Knowledge and appreciation of science as a significant human activity, rather than merely a listing of results or collection of data, is acquired only by engaging in the activities of science.
(3) Natural Sciences (8 hours)

Two or more natural sciences courses which deal with fundamental principles and in which critical evaluation and analysis of data and processes are required. A minimum of one course shall include a corresponding laboratory. Non-technical courses are specifically excluded.

Knowledge of our culture and its ideals makes possible both social integration and self-realization
(4) Humanities (3 hours)

Courses used to satisfy this requirement shall address one of the following subject areas: history, philosophy, literature, the arts, culture or language (exclusive of courses devoted predominantly to acquiring language skills in a student's native language). Acceptable courses are: AMST 300 COMM

As the human social environment becomes more complex, it is increasingly important for individuals to understand the nature and function of their social, political and economic institutions (see note 4).
(5) Social and Behavioral Sciences (3 hours)

Courses used to satisfy this require-ment shall address one of the following subject areas: anthropology, economics, political science, geography, psychology, sociology or communication.
(6) U.S. History and Political Science (12 hours, 6 hours of history and 6 hours of political science)

To be a responsible citizen of the world it is necessary, first, to be a responsible citizen of one's own country and community.

As individual and national destinies become progressively more interconnected, the ability to survive and succeed is increasingly linked to the development of a more pluralistic, diverse and globally-aware populace. Two courses from the following list are to be taken by the student. If a course listed below also satisfies another University Core Curriculum requirement, it can be used to satisfy both requirements if the student wishes to do so. For example, a course that satisfies the Social and Behavioral Sciences requirement may be used to satisfy the International and Cultural Diversity requirement if that course also appears on the list.
(7) International and Cultural Diversity (6 hours)

As the ancient scholars knew and as modern research has confirmed, the development of the body as well as the mind is an integral part of the educational process.

Kinesiology requirements are to be fulfilled by completing KINE 198 Health and Fitness and any other one KINE 199 course. KINE 199 used to fulfill University Core Curriculum requirements must be taken S/U. KINE 199 courses not included in the University Core Curriculum can be taken for a grade in accordance with the student's college policy. Transfer students with fewer than 2 hours of kinesiology credit must meet the KINE 198 requirement either by transfer of credit or by taking the course at Texas A\&M.

## 7. University of Arizona

General education programs provide breadth of knowledge as a balance and complement to the depth provided by the major. General education is designed to accomplish several goals: first, to afford students the opportunity to learn how different disciplines define, acquire and organize knowledge; second, to provide a basis for an examination of values; third, to develop analytic, synthetic, linguistic and computational skills useful for lifelong learning; and finally, to provide a common foundation for wide-ranging dialogue with peers on issues of significance. Taken together, the experiences of general education encourage the student to develop a critical and inquiring attitude, an appreciation of complexity and ambiguity, a tolerance for and empathy with persons of different backgrounds or values and a deepened sense of self. In short, the goal of the general education program is to prepare students to respond more fully and effectively to an increasingly complex world.

The general education program at The University of Arizona is university-wide; that is, regardless of college or major, students hold their general education requirements in common.

## Tier One and Tier Two

Both Tier One and Tier Two courses offer rigorous treatments of fundamental knowledge and methods of inquiry. They are designed to foster independent, creative, and interactive learning, inspiring students to think about themselves, others, and social organizations in new and insightful ways. Students are exposed to various areas of study and acquire valuable skills and knowledge applicable to their lives at the University and beyond.

## Tier One

Tier One courses introduce new students to fundamental issues and concepts pertinent to three study areas: Traditions and Cultures, Individuals and Societies, and Natural Sciences. Students are required to take two courses in each segment of Tier One, for a
total of six courses. Students entering the University as freshmen will be expected to complete Tier One requirements by the end of the midpoint of their degree (e.g. for a four-year 120-unit degree program by the end of the second year of full-time work or the completion of 60 units).

## Tier One: Required:

- Traditions \& Cultures (TRAD) 2 courses
- Individuals \& Societies (INDV) 2 courses
- Natural Sciences (NATS) 2 courses

Total: 6 courses

## Tier Two

Tier Two courses offer more in-depth examination of particular disciplines. They are organized into four study areas: Arts, Humanities, Individuals and Societies, and Natural Sciences. Students are required to take one course each in Humanities, Individuals and Societies, and Natural Sciences, and 3 units in Arts. One study area (one course or 3 units in Arts) may be completed by a major course; each major identifies which study area could be completed within its course work. Students are expected to complete Tier Two requirements by the conclusion of their undergraduate degree.

## Tier Two Study Areas: Required:

- Arts 3 units
- Individuals \& Societies 1 course
- Natural Science 1 course
- Humanities 1 course

Total: 3 courses plus 3 units in Arts

## 8. University of California at Los Angeles

General education (GE) requirements are intended to introduce undergraduates to the richness and diversity of the various academic disciplines. Students are encouraged to
explore the different possibilities for further university study. Whether or not students have a specific educational goal, general education requirements are designed to broaden their intellectual perspective and to set them on the path to becoming educated members of society.

The program is called Foundations of Knowledge and is structured around:

- Foundations of Arts and Humanities
- Foundations of Society and Culture
- Foundations of Scientific Inquiry
[The requirements vary by College; all links are at http://www.registrar.ucla.edu/GE/.]


## 9. University of Florida

## General Education Requirements

All undergraduate students (except those transferring to UF with an A.A. degree from a Florida public community college or an A.A. certificate from a Florida public state university) are required to complete the general education requirement to graduate.

## The general education program requires $\mathbf{3 6}$ credits of courses in the following areas:

- 3 credits of Composition (C)
- 6 credits of Mathematical Sciences (M)* - Three of the six credits must be approved mathematics courses.
- 9 credits of Humanities (H)
- 9 credits of Social and Behavioral Sciences (S)
- 9 credits of Physical (P) and Biological (B) Sciences
- 6 credits of International/Diversity Focus (I) - "I" courses must be taken in conjunction with courses coded C, H, S, P or B.


## Composition - (C)

Writing is one of the most important skills students need to communicate effectively during their professional careers and lives. Composition courses focus on methods of writing, conventions of standard written English, reading and comprehension skills, and techniques in production of effective texts for readers in varied situations. "C"designated courses are writing intensive. They require multiple drafts submitted to the instructor for feedback prior to final submission and they fulfill 6,000 of the university's 24,000 -word writing requirement.

## Mathematical Sciences - (M)

Courses in mathematical sciences help students acquire concepts and skills in logic, inductive and deductive reasoning, and abstract and quantitative thinking. Students also learn to reason critically, solve problems creatively, assess statistical evidence, use technology effectively and form conclusions.

Students must take at least three hours of approved mathematics courses; the other three credits can be from approved courses such as statistics and computer science courses outside the math department.

## Humanities - (H)

The humanities requirement enables students to think critically about what artists and thinkers (past and present) have to teach us about the non-material qualities of human beings and human values. In courses in the humanities, students become acquainted with the enduring products - in words, sounds, paint, stone, metal and many other media - in which thoughtful and gifted human beings have attempted to meet our individual and collective needs for emotional, spiritual and intellectual fulfillment. Humanities courses address major intellectual, cultural and aesthetic achievements. Students consider questions of ultimate meaning and study human activities, artifacts and values in the context of the ages in which they were produced.

## Social and Behavioral Sciences - (S)

In the social and behavioral sciences, students investigate human behavior in its social context. Students analyze the characteristics and structure of individuals, families, groups and institutions to develop an understanding of the human species. Often using scientific and quantitative methods, students examine the processes and means by which participants in society make personal and group decisions.

## Natural Sciences - Physical (P) and Biological Sciences (B)

Courses in the natural sciences introduce students to the basic concepts of science and the scientific method and enhance awareness of scientific developments and their impact on society and the environment. This area provides students with an understanding of scientific terms, concepts and theories, and the ability to formulate empirically testable hypotheses derived from the study of physical processes and living things.

## International/Diversity Focus - (I)

The United States is part of the global community and is increasingly diverse as a nation. The international and diversity requirement provides basic concepts and tools to help students understand and appreciate diversity among people. Courses focus on diversity among nations (the international component) and within a nation (including the United States). This includes differences such as gender, class, race, ethnicity, sexuality or culture.

Courses meeting this requirement may make students aware of non-Western influences or they may immerse students in a culture quite different from mainstream U.S. culture. These courses give students new lenses through which to view, and thereby understand, people and world events.

Six credits of course work must have an international or diversity focus.
Study abroad courses can apply toward this six-hour requirement, in addition to fulfilling credit in other categories. Such courses must be approved in advance by an academic adviser and certified by the UF International Center (UFIC).

## 10. University of Georgia

## Division of General Studies

The Division of General Studies:
All first-year students entering the College, and all transfer students who have not earned enough credit to be classified as third-year students, are enrolled in this division. While in the Division of General Studies, students take courses in the required University of Georgia Unified Core Curriculum and also work toward satisfying the Franklin College degree requirements, identified below. While in this Division, students who entered the University undecided about their majors must choose majors for which they are eligible.

Upon the satisfactory completion of the requirements of this division, which is usually accomplished during the first two years, students transfer either to one of the several departments of the College or to another school or college within the University. Each department in the Franklin College, and each school or college in the University, has its own regulations concerning transfer. Students should contact the appropriate dean's office well in advance of the expected date of transfer.

## General Education in the University System of Georgia

From the origins of intellectual study to the present, general education has been a key to a fulfilling life of self-knowledge, self-reflection, critical awareness, and lifelong learning. General education has traditionally focused on oral and written communication, quantitative reasoning and mathematics, studies in culture and society, scientific reasoning, and aesthetic appreciation. Today, general education also assists students in their understanding of technology, information literacy, diversity, and global awareness. In meeting all of these needs, general education provides college students with their best opportunity to experience the breadth of human knowledge and the ways that knowledge in various disciplines is interrelated.

In the University System of Georgia, general education programs consist of a group of courses known as the Core Curriculum as well as other courses and co-curricular
experiences specific to each institution. The attainment of general education learning outcomes prepares responsible, reflective citizens who adapt constructively to change. General education programs impart knowledge, values, skills, and behaviors related to critical thinking and logical problem-solving. General education includes opportunities for interdisciplinary learning and experiences that increase intellectual curiosity, providing the basis for advanced study in the variety of fields offered by today's colleges and universities.

A broad liberal arts education is the basis of western society. It is a basic requirement for admission into such professions as law, medicine and politics. Its importance is reflected in the University System of Georgia Core Curriculum requirements which all undergraduates at the University must satisfy. No citizen today can be considered well educated without some knowledge of language, literature, fine arts, philosophy, social science, math and science. The range and availability of classes in these subjects therefore directly bears on the quality of education available to citizens of Georgia.

Area A - Essential Skills (9 hours)
Area B - Institutional Options (4-5 hours)
Area C - Humanities/Fine Arts (6 hours)
Area D - Science, Mathematics, and Technology (10-11 hours)
Area E - Social Sciences (12 hours)

## 11. University. of Illinois

## Why Have General Education Requirements for Students?

General education is an important component of students' education at the University of Illinois. In order to be a well-educated, successful, and valuable participant in our rapidly changing global community, students need more than a professional or vocational training. When they graduate, they will enter a world in which they can expect to hold different jobs, and indeed even work in a succession of careers over the
course of their lives. In order to prepare for this exciting, challenging future, they need during their college years not only to specialize in a major and train for a career, but to become more broadly educated, conversant with at least some of the many rapidly changing disciplines. They need to gain a sense of our past achievements, present developments, and future possibilities. As undergraduates at the University of Illinois, students can expect to enlarge their perspectives (historical, aesthetic, cultural, literary, scientific, philosophical), to improve their critical and analytical thinking, and to learn skills in finding, managing, and communicating knowledge. General education requirements are meant to help students fulfill these goals.

You are required to complete the following coursework:

- Composition I: 3/6 hours
- Advanced Composition: 3 hours
- Cultural Studies: Non-Western/US Minority Culture(s): 3 hours
- Cultural Studies: Western/Comparative Culture(s): 3 hours
- Language (formerly Foreign Language): Completion of a 3rd semester collegelevel course in a language other than the student's primary language
- Humanities/Arts: 6 hours
- Natural Sciences/Technology: 6 hours
- Social/Behavioral Sciences: 6 hours
- Quantitative Reasoning I: 3 hours
- Quantitative Reasoning II: 3 hours


## 12. University of Iowa

## Introduction

All students entering the College of Liberal Arts and Sciences who wish to earn B.A., B.S., B.F.A., B.L.S., or B.M. degrees must complete the General Education Program.

There are 12 areas in which courses may be approved for General Education. Students choose courses approved in the various areas to complete the General Education Program. The Program consists of:

- Rhetoric: students take one or two courses, 3-8 semester hours, as determined by the Rhetoric department
- Foreign Language: students must achieve 4th semester competency or the departmental equivalent; this component may be completed through high-school study
- Interpretation of Literature: all students (except English majors) compete one course, minimum 3 s.h.
- Historical Perspectives: students take at least one course, and at least 3 semester hours
- Humanities: students take at least one course, and at least 3 semester hours
- Natural Sciences: students take two courses (1 with lab), a minimum of 7 semester hours
- Quantitative or Formal Reasoning: students take at least one course, and at least 3 semester hours
- Social Sciences: students take at least one course, and at least 3 semester hours
and

Distributed General Education: students complete at least 6 additional semester hours, with a minimum of 3 semester hours chosen from each of two of these areas: Cultural Diversity, Fine Arts, Foreign Civilization and Culture, Health and Physical Activity, Historical Perspectives, Humanities, Social Sciences.

Most courses approved for General Education are taught by CLAS or other UI faculty members. Some courses include discussion or lab sections led by teaching assistants. A small number of courses (including, but not limited to, courses approved in Rhetoric, Foreign Language, and Interpretation of Literature) are taught in small
sections by teaching assistants who are supervised by faculty members. When teaching assistants are the primary instructors for a course, the General Education Curriculum Committee and the Educational Policy Committee insure that a comprehensive, thorough and on-going training and oversight program is provided to the teaching assistants.

## 13. University of Maryland

## The Purpose of General Education

Participation in a democratic society requires more than the central instruction provided by one major field of study. In our world of rapid economic, social, and technological change, a strong and broadly-based education is essential.

General education helps students achieve the intellectual integration and awareness they need to meet challenges in their personal, social, political, and professional lives. General education courses introduce the great ideas and controversies in human thought and experience. These courses provide the breadth, perspective, and rigor that allow University of Maryland at College Park graduates to claim to be "educated people."

Most Americans change their careers three times during their lifetime. A solid general education provides a strong foundation for the life-long learning that makes careerchange goals attainable.

The CORE course list has been developed to ensure that the content and pedagogy of the approved courses meet the educational values articulated in the "Pease Report". As general goals, CORE courses feature active learning, substantial writing, and, where possible, relatively small class, lab, or discussion section size. Many CORE courses are taught by regular faculty members. In addition, CORE courses are subject to periodic review to ensure that the intellectual integrity of the CORE Program is maintained in accordance with the original goals of the Pease Report.

Colleges and universities have had forms of liberal arts and sciences or general education requirements for hundreds of years. Even in the technical disciplines, a University of Maryland baccalaureate degree is intended to be much more than career training. It signifies successful completion of instruction for the living of a full and productive life, learning not only how to learn, but how to value, evaluate, and evolve with the learning. The University of Maryland at College Park Faculty wish to guide you through your studies toward these goals. Achieving them is a shared journey. Families, employers, and the larger community all play important roles.

Our faculty have both the knowledge and the responsibility to determine the minimum academic requirements for the general or liberal education portion of the degree. In the mid-1980s College Park faculty called for a new look at undergraduate education. A committee of faculty, staff, and students was formed for this purpose; it produced a report called "Promises to Keep: The College Park Plan for Undergraduate Education. This report made a number of recommendations for changes in undergraduate education at UM. The College Park Senate reviewed the recommendations, modified some, and approved the report in 1988. Some of the recommendations were implemented to create the CORE Program which went into effect in May 1990. Another important outcome of the Report was the creation of the Center for Teaching Excellence (CTE).

The CORE Program has several important differences from its predecessor, the University Studies Program (USP). CORE includes a Human Cultural Diversity requirement, strengthens the science requirement, has a more formal proposal and approval process, and provides for periodic review of approved courses - including a student assessment - to ensure that the courses continue to meet the goals of the CORE Program. Student representatives serve on the Senate CORE Committee and all its working groups.

## Elements of the CORE Program

Fundamental Studies

Fundamental Studies courses help you strengthen the mathematical and writing skills you will need to communicate effectively in your university courses and in the modern world. Building your career and future without the powerful tools of mathematics and writing can be as tough as driving nails with your bare hands.

The Introduction to Writing and Mathematics requirements must be attempted by the time the student has reached the 30 -credit level and must be successfully completed by the time the student has reached the 60 -credit level. The Professional Writing requirement may be taken only when the student has reached the 56 -credit level or higher.

The Fundamental Studies requirement is nine credits as follows:
I. English Composition (6 credits, 2 courses)

- Introduction to Writing (3 credits)
- Professional Writing (3 credits)
II. Mathematics (3 credits, 1 course)


## Distributive Studies

Distributive Studies courses provide breadth and help you make, or confirm, your choice of major by sampling a variety of subjects. You will take three courses in each of three areas: Humanities and the Arts; Sciences and Mathematics; Social Sciences and History. You will also have the option to take one course in Interdisciplinary and Emerging Issues, a new and optional category effective beginning Fall 2005. As you learn about different views of the world, you may discover talents and interests you never knew you had. You will also begin acquiring the background you need to make the informed decisions continually required of citizens in a democracy.

Different academic disciplines study the world through different lenses, and no single lens provides a perfectly clear view of everything. You will strengthen your own insight and judgment by learning how several different disciplines focus, and may sometimes distort. The world, with its challenges and opportunities, is not neatly divided into academic disciplines and majors. Scientists and engineers need to know about art, people, and society. Artists and writers need to know about the building blocks of life and the laws of nature.

Please note that there are sub-categories under each CORE Distributive Studies area that must be completed as specified to satisfy the requirements.

## Distributive Studies Requirements:

You must take 9 courses from the following areas for a total of at least 28 credits. All CORE Distributive Studies courses have at least 3 credits. Lab Science courses generally have 4 credits. Some Distributive Studies courses have 4 or more credits. Courses must be selected from the approved CORE lists.

## Humanities and the Arts

At least 9 credits, 3 courses

- Literature (HL) (one course)
- The History or Theory of the Arts (HA) (one course)
- One other HL, HA, or Humanities (HO) course


## Sciences and Mathematics

At least 10 credits, 3 courses

- Physical Science lists (PL, PS) (at most two courses)
- Life Sciences lists (LL, LS) (at most two courses)
- Mathematics and Formal Reasoning lists (MS) (at most one course)

Courses must be taken from at least two of the above areas. Students are not required to take a course in Mathematics and Formal Reasoning (MS). However, one course from the Mathematics and Formal Reasoning area may be counted toward the CORE Sciences and Mathematics requirements.

At least one of the Sciences and Mathematics courses must include or be accompanied by a laboratory taken concurrently. For most courses, the lecture and laboratory components are listed together under one course number. However, in a few instances, the lecture and lab components are offered separately with different course numbers. For these courses, the lecture and lab must be taken during the same semester in order to fulfill the CORE Sciences and Mathematics lab science requirement. The Schedule of Classes notes those courses that must be taken in the same semester to be counted for CORE. The lecture portion of any of these pairs will only be counted toward CORE if it is also on one of the CORE non-lab science lists.

## Social Sciences and History

At least 9 credits, 3 courses

- Social or Political History (SH) (one course)
- Social and Behavioral Sciences (SB) (two courses)

One course must be from the Social or Political History list, while the other two courses must be from the Social and Behavioral Sciences list.

## Interdisciplinary and Emerging Issues (IE)

0 or 3 credits, 0 or 1 course
New \& Optional Category, effective beginning Fall 2005

The IE category features courses that provide an interdisciplinary examination of issues (theory, questions, methods) across CORE areas, or present a significant portion of content that does not fit into any of the specific CORE areas but deals with
contemporary issues, emerging disciplines, or other categories of knowledge, skills, and values that lie outside these areas.

See the CORE website for the list of IE courses (added as approved). The online Schedule of Classes at http://www.testudo.umd.edu/ ScheduleOfClasses.html will also include IE courses (added as approved).

## 14. University of Michigan, Ann Arbor

The distribution equivalents/general education requirements for the College of Literature, Science, and the Arts are designed to provide all students with a broad intellectual experience in the major fields of knowledge and to ensure that every graduate will have personal experience with content, method, and system of values of various disciplines by which we try to understand ourselves and our environment.
(1) English Composition -- one semester to be completed the first year. All new first year and transfer students must fulfill an LSA English composition requirement with the exception of those entering the College of Literature, Science, and the Arts; the School of Natural Resources and Environment; the School of Business; and the School of Art and Design. This may be met through adequate writing assessment taken during the orientation program or through course work taken in LSA after enrollment. Prior course work can be transferred for degree credit but may not satisfy the requirement. A second part of the English Composition requirement, for all degree-seeking students who enter the College of Literature, Science and the Arts, is a course taken during the junior or senior year. The intent of this course is to provide writing skills specific to a discipline. Such courses are offered in many disciplines so that courses may be selected which are suitable to the program of studies. LCC equivalents: WRIT 121, WRIT 122 OR ENGL 122.
(2) Foreign Language -- Fourth semester proficiency in one language is required and may be demonstrated by one of the following means:

- A score of 600 or more on the CEEB Achievement Test in a foreign language.
- Placement out of "Language 232" in reading and listening by U of M test.
- Credit for a fourth semester (6th term) language course.
(3) Area Requirements - A minimum of 30 semester hours of course work is required outside the department of concentration with at least three courses in each of three areas for at least 10 semester credits in each area. See U of M LSA Catalog for further information on areas requirements


## 15. University of Minnesota - Twin Cities

## Liberal Education Requirements

A liberal education introduces you to the modes of inquiry and subject matter of the major branches of knowledge, including the factual information and theoretical or artistic constructs that form their foundations; the "ways of knowing" the kinds of questions asked and how insight, knowledge, and data are acquired and used; the changes over time of their central ideas or expressive forms; and the interrelationships among them and with human society in general. To these ends, study by all undergraduate students on the Twin Cities campus is guided by a common framework.

## Satisfying Liberal Education Requirements

You may satisfy liberal education requirements with a variety of courses; some satisfy several requirements at once. For example, some courses will satisfy both a diversified core requirement and a designated theme requirement; other courses will satisfy the requirements for each of two designated themes.

## The Diversified Core Curriculum

## Physical and Biological Sciences

Comprehension of physical and biological principles; understanding of and ability to use the methods of scientific inquiry-the ways in which scientists investigate physical and biological phenomena; and appreciation of the importance of science and the value of a scientific perspective.

## History and Social Sciences

Knowledge of how historians and social scientists describe and analyze human experiences and behavior; study of the interrelationships among individuals, institutions, structures, events, and ideas; understanding of the roles individuals play in their historical, cultural, social, economic, and political worlds.

## Arts and Humanities

Understanding of approaches to the human condition through works of art, literature, and philosophy; knowledge of how artists create and humanistic scholars think; ability to make aesthetic judgments.

## Mathematical Thinking

Acquisition of mathematical modes of thinking; ability to evaluate arguments, detect fallacious reasoning, and evaluate complex reasoning chains; appreciation of the breadth of applications of mathematics and its foundations.

## The Designated Themes of Liberal Education

The designated themes of liberal education offer a dimension of liberal learning that complements the diversified core curriculum. Each of the themes focuses on an issue of compelling importance to the nation and the world, the understanding of which is informed by many disciplines and interdisciplinary fields of knowledge.

## Environment

Knowledge of the interaction and interdependence of the biophysical systems of the natural environment and human and social cultural systems.

## Cultural Diversity

Understanding of the roles gender, ethnicity and race play in structuring the human experience in and developing the social and cultural fabric of the United States.

## International Perspectives

Comprehension of the ways in which you are part of a rapidly changing global environment dominated by the internationalization of most human endeavors.

## Citizenship and Public Ethics

Reflection on and determination of a clearer sense of your present and future civic relationships and your obligations to the community.

## Writing Intensive Requirement

Students are required to take four writing intensive courses. These courses are in addition to the one to two freshman writing courses required for all freshmen. At least two of the four required writing intensive courses must be taken at the 3000-level or above, and at least one upper division writing intensive course must be taken with the student's major or program area.

## Freshman Seminars

Freshman seminars follow a standard numbering system where the number denotes the approved Liberal Education requirement(s).

Freshman seminars numbered 1901 are approved for the environmental requirement; 1902 for the cultural diversity requirement; 1903 for the citizenship/public ethics requirement; 1904 for the international perspectives requirment; 1906 for both environment and writing intensive; 1907 for both cultural diversity and writing intensive; 1908 for both citizenship/public ethics and writing intensive; 1909 for both
international perspectives and writing intensive; 1910 for the writing intensive requirement only. Freshman seminars numbered 1905 are not approved for a Liberal Education requirement.

## 16. University of North Carolina at Chapel Hill

To these ends our curriculum seeks to provide for all students: (1) the fundamental skills that will facilitate future learning; (2) broad experience with the methods and results of the most widely employed approaches to knowledge; (3) a sense of how one might integrate these approaches to knowledge in a way that can cross traditional disciplinary and spatial boundaries; and (4) a thorough grounding in one particular subject. The undergraduate major is dedicated to the fourth of these curricular goals; the General Education curriculum, organized around the theme of "Making Connections," addresses the other three goals simultaneously.

The General Education requirements that apply to all UNC undergraduates can be outlined as follows:

- Foundations: the skills needed to communicate effectively both in English and another language; to apply quantitative reasoning skills in context; and to develop habits that will lead to a healthy life.
- Approaches: a broad experience with the methods and results of the most widely employed approaches to knowledge.
- Connections: a sense of how to integrate foundational skills and disciplinary perspectives in ways that encourage linkages between discrete areas of knowledge, on the one hand, and differing geographic, social, conceptual, and practical contexts (local, national, global, academic, professional), on the other hand.


## FOUNDATIONS (17 hours total)

(1) English Composition and Rhetoric (6 hours)

A two-course sequence in written and oral communication
(e.g., ENGL 011/101, ENGL 012/102)
(2) Foreign Language (7 hours with level 2 placement)

Through level 3 (if placed into level 4, must complete it)
(e.g., FREN 001/101, ARAB 103/203, DTCH 105/402)

No credit for level 1 of high school language
(3) Quantitative Reasoning (3 hours)

One quantitative reasoning course
(e.g., MATH 016/116, COMP 014/101)
(4) Lifetime Fitness (1 hour)

One course granting one hour of academic credit (e.g., PHYA 016Y/107, PHYA 011/103)

## APPROACHES (25 hours total)

(1) Physical and Life Sciences (7 hours)

Two courses from approved list, at least one with lab
(e.g., PHYS 016/100, BIOL 010/113, PSYC 010/101)

Social and Behavioral Sciences (9 hours)
Three courses from at least two different departments or curricula
(e.g., SOCI 010/101, RELI 031/121, PLAN 046/246)

One of the three courses must engage in Historical Analysis.
(e.g., HIST 011/151, HIST 074/374, FOLK 174/670)
(2) Humanities and Fine Arts (9 hours)

Philosophical and Moral Reasoning
One course in philosophical analysis that contains significant content in ethics and moral reasoning
(e.g., PHIL 020/101, SOCI 014/114, AFAM 128/428)

Visual, Performing, and Literary Arts

One course in literature
(e.g., ENGL 023/123,CMPL 022/122, AMST 060/290)

One course in visual or performing arts (e.g., ART 004/104, DRAM016/116, MUSC 086/286)

CONNECTIONS ( 0 additional hours, because all courses eligible for "multiple counting")

## Foundational Connections

One Communication Intensive course
(e.g., COMM 024/224, GERM 011/301, JOMC 053/153)

One Quantitative Intensive course
(e.g., STAT 126/STOR 435, MASC 145/553, ENST 054/222)

## Spatial and Cultural Connections

Experiential Education: One course or program of study (e.g., PLCY 090/325, GEOL 197/555, EXSS 071/271)
U.S. Diversity: One course
(e.g., WMST 062/362, SOCI 022/122, FOLK 160/460)

The North Atlantic World: One course (e.g., SOCI 061/276, AMST 060/290, RELI 087/236)

Beyond the North Atlantic: One course
(e.g., RUES 199/699, LTAM 040/101, GEOG 158/458)

The World Before 1750: One course (e.g., CLAS 033/253, ANTH 021/121, HIST 027/156)

Global Issues: One course
e.g., WMST 081/281, PWAD 020/120, LING 075/306, INTS 081/281)

## 17. University of Virginia

## Competency Requirements

Following matriculation, all competency and area requirements must be completed at the University of Virginia and must be taken on a graded basis. AP credits from secondary school and transfer credits awarded before UVa matriculation may count as area requirements, with the exception of the second writing requirement. Dualenrollment credit may not be used to meet first writing or foreign language requirements. Test scores cited in this section are from the SAT II Subject Tests recentered in April 1995.

First Writing Requirement: ENWR 105/106 (6 credits) or ENWR 110 (3 credits), ENWR 210 ( 3 credits), or exemption

Students must meet the first writing requirement during their first year at the University of Virginia. Students may meet this requirement by successfully completing the ENWR 105/106 sequence, by passing either ENWR 110 or 210, or by exemption. Students may earn exemption in one of three ways:
A. Single-measure exemption: Students are automatically exempt from the first writing requirement if at least one of the following statements is true:

- The student is an Echols Scholar
- The student scored 720 or above on the SAT II writing exam
- The student scored a 5 on the AP English language subject test
B. Composite exemption: Students are automatically exempt from the first writing requirement if at least one of the following statements is true:
- The student scored $680-710$ on the SAT II writing exam AND scored a 5 or above on the IB (higher level A 1) exam
- The student scored 680-710 on the SAT II writing exam AND scored a 4 on the AP English language subject test
- The student scored 700-710 on the SAT II writing exam AND scored a 4 or 5 on the AP English literature exam
C. Portfolio exemption: Students who feel that their test scores do not fairly represent their ability to write academic arguments may ask the Academic Writing Program to review a portfolio of your work. For more information on portfolio exemption, see the placement guide at www.engl.virginia.edu/writing.

Second Writing Requirement: typically a 3-credit course
Students must complete an additional course, in any department in the College, whose written work in English meets the criteria for this requirement. The course may carry one or more credits. There are no exceptions to the second writing requirement. Courses elected under this heading may also be counted toward completion of other segments of the area requirements, as well as toward a major or minor. A course offered for the second writing requirement must carry a grade of C - or better and must be taken in the College. All students must satisfy this requirement at the University of Virginia by the end of the sixth semester, with the necessary form filed by the same deadline in the dean's office.

Foreign Language: 0-14 credits, (through the 202 level; 212 in Portuguese; 201 for B.S. in Chemistry) or exemption, depending on previous work

Placement in a language sequence is by SAT II Subject Test score and departmental recommendation. Students who achieve the following SAT II Subject Test scores are exempt from this requirement: 660 or above in French; 650 or above in German, Italian, Latin, or Spanish; 640 or above in Chinese or Japanese; or 560 or above in Hebrew. Students must follow the department's recommendations in the completion of the foreign language requirement. Once placement occurs, the foreign language requirement is fulfilled by the completion of each course in sequence (no skipping). Credit for introductory language courses is disallowed if it duplicates foreign language credits offered for admission to the College.

Students may be exempted from foreign languages not taught in the College upon certification by a faculty member or outside examiner designated by the dean of the

College. Students may also meet the foreign language requirement by completing, or gaining exemption from, the fourth semester of American Sign Language.

## Area Requirements

Natural Science and Mathematics: 12 credits
Students must pass twelve credits of natural science and/or mathematics courses from at least two departments. Exceptions are: BIOL 000t, CHEM 000t, PHYS 000t, ASTR 000t, EVSC 000t and EVSC 230, MATH 000t and MATH 103. The courses designated as 000 t 's are equivalencies determined by the College of Arts and Sciences. These courses were taken prior to matriculation and are considered to be elective credit.

For the purpose of fulfilling this requirement, statistics and mathematics are considered one department. Students are strongly encouraged to include courses in mathematics, the physical sciences, and the biological sciences. These courses may be chosen from the Departments of Astronomy, Biology, Chemistry, Economics (ECON 371 only), Environmental Sciences, Mathematics, Physics, the Division of Statistics, and MSE 201.

## Social Sciences: 6 credits

Students must pass a minimum of one course (three or more credits) from two of the following departments or programs: African-American and African studies, anthropology (except ANTH 237), economics (except ECON 371), politics (except PLPT), linguistics (200-level or above), psychology, sociology, and studies in women and gender. Students may also choose EVSC 230 from the environmental sciences department and AMEL 301,302 from the Asian and middle eastern languages and cultures department, as well as MDST 317 from the Media Studies department.

Some foreign language courses taught under ANTH do not fulfill this requirement, nor do literature courses under AAS. Courses taken for this requirement may also count toward one other area requirement.

Humanities: 6 credits

A student must pass a minimum of one course (three or more credits each) from two of the following three groups of departments and programs:

Literature: classics, comparative literature, English (except ENWR 105/106, 110, 210, $220,270,282,370,371,372,380$ and ENSP 106) and foreign literature-Asian and Middle Eastern languages and cultures (except ARAB 225, 226, 323/523, 324/524, CHIN 206 and AMEL 301, 302), French, German, Slavic languages and literatures, and Spanish, Italian and Portuguese courses in translation, all courses above the 202 level, as well as MDST 301 from the Media Studies department.
Fine Arts: Art History; Studio Art; Drama; Music (except courses MUSI 150-MUSI 159, MUSI 150A-MUSI 159Z, MUSI 160-MUSI 169, MUSI 160A-MUSI 169Z, MUSI 351-MUSI 369); Architectural History (AR H) 100, 101, 102, 180, 203, 321, 323, and 381; and Architecture (ARCH) 101 and ANTH 237, as well as MDST 201, MDST 350, MDST 361 and MDST 511 from the Media Studies department. .
Moral, Philosophical and Religious Perspectives: Political Theory (PLPT), Philosophy, and Religious Studies, as well as MDST 401 from the Media Studies department. .

## Historical Studies: 3 credits

Students must pass a minimum of one course (of at least three credits) from the Department of History or a course from another department that is substantially historical, as recognized by the Committee on Educational Policy and the Curriculum (CEPC). Courses taken for this requirement may also count toward one other area requirement.

Non-Western Perspectives: Students must pass a minimum of one course (of at least three credits), from any department among those recognized by the CEPC as dealing substantively with a culture other than the Western cultural heritage, including minority sub-cultures in the West. Courses taken for this requirement may also count toward one other area requirement.

Liberal Arts Seminars (LASE), University Seminars (USEM 170, 171), and other courses numbered 170 and 171 count as non-College credit and may not be counted toward the area requirements.

## 18. University of Washington

University-level general education and basic skills requirements: The University of
Washington has established minimum general education and basic skills requirements for baccalaureate degrees. These minimum requirements are:

- 12 credits of writing, including 5 credits of English composition
- one course from the University Quantitative and Symbolic Reasoning list
- 40 credits of Areas of Knowledge courses, with at least 10 credits in each of three Areas: Visual, Literary, and Performing Arts; Individuals and Societies; and The Natural World.

Each college of the University has established requirements that meet or exceed these minimum requirements.

For the Arts and Science requirement (includes a language), please see http://www.washington.edu/students/ugrad/advising/ged/\#other

## 19. University of Wisconsin-Madison

## General Education Requirements

The purpose of the General Education Requirements is to ensure that every graduate of the University of Wisconsin-Madison acquires the essential core of an undergraduate education that establishes the foundations for living a productive life, being a citizen of the world, appreciating aesthetic values, and engaging in lifelong learning in a continually changing world. For this reason, these core requirements provide for breadth across the humanities and arts, social studies, biological sciences,
and physical sciences; competence in communication, critical thinking and analytical skills appropriate for a university-educated person; and investigation of the issues raised by living in a culturally diverse society.

Students are expected to achieve these competencies by taking courses that fulfill the General Education Requirements. Students may choose from a wide array of courses in communication, quantitative reasoning, natural science, humanities/literature/arts, social studies, and ethnic studies. Many of these courses also count toward degree requirements.
All students except those who matriculated at a college or university before May 20, 1996, must satisfy the university-wide General Education Requirements. Students should always check with their advisors to see if their school or college has any additional requirements that go beyond the basic UW-Madison requirements, or if the programs in which they are enrolled ask them to fulfill these requirements through specific courses or by pursuing them in a particular order. Please see www.ls.wisc.edu/gened for a comprehensive description of the General Education Requirements and the courses that may be taken to fulfill them.

## The university-wide General Education Requirements are:

Communication, 3 to $5 / 6$ credits
Part A. Literacy Proficiency. 2-3 credits at first-year level dedicated to reading, listening, and discussion, with emphasis on writing. While most incoming freshmen are required to complete course work to fulfill this requirement, students may be exempted from Part A by approved college course work while in high school, AP test scores, or placement testing. Students are expected to satisfy this requirement by the end of their first year.

Part B. Enhancing Literacy Proficiency. 2-3 credits of more advanced course work for students who have completed or been exempted from Part A. Students should consult with the appropriate undergraduate advisor about when this requirement should be completed. Courses that satisfy this requirement are offered in many fields of study;
although a wide variety of courses fulfill this requirement, students are encouraged to select a course most in keeping with their interests or other requirements of their intended field(s) of study.

Quantitative Reasoning, 3 to 6 credits
Part A. Quantitative Reasoning Proficiency. 3 credits of mathematics or formal logic. Students may be exempted from Part A by approved college work while in high school, AP test scores, or placement testing. Some students, however, may need to complete a prerequisite before enrolling in a Quantitative Reasoning Part A course. Part B. Enhancing Quantitative Reasoning Proficiency. 3 credits of more advanced course work for students who have completed or been exempted from Part A. Courses that satisfy this requirement are offered in a variety of fields of study. Students are encouraged to select a course in keeping with their interests or other requirements of their intended field(s) of study.

Breadth, 13-15 credits, distributed over three areas
All students must complete 13-15 credits of course work intended to provide a breadth of experience across the major modes of intellectual inquiry. Breadth course work is intended to give students a broad intellectual perspective on their undergraduate education and their world by encouraging them to look at and understand subjects through the various modes of inquiry used in the natural, physical and social sciences, arts, and humanities. At their most basic level, these requirements challenge students to reach beyond their natural inclinations and understand that there are many ways to identify, research and explore, and ultimately understand, the world around them. These many ways of knowing enrich the undergraduate experience. Many students will find, through them, a lifetime fascination with pursuits beyond their workaday lives. Others will find the creative stimulus to see their favorite subjects from new and interesting perspectives.

Students are required to complete the following breadth requirements:

- Natural Science, 4 to 6 credits, consisting of one 4- or 5 -credit course with a laboratory component; or two courses providing a total of 6 credits.
- Humanities/Literature/Arts, 6 credits
- Social Studies, 3 credits
- Ethnic Studies, 3 credits

All students must take one course of at least 3 credits which is designated as an Ethnic Studies course. The ethnic studies requirement is intended to increase understanding of the culture and contributions of persistently marginalized racial or ethnic groups in the United States, and to equip students to respond constructively to issues connected with our pluralistic society and global community. Many ethnic studies courses also fulfill other breadth and other requirements.

