Understanding University Success

This document is designed to answer one question: What must students know and be able to do in order to succeed in entry-level university courses? It is a difficult question because admissions requirements only hint at what is actually expected once students reach college. Traditional measures of high school achievement do not necessarily address this question very well either because they reflect each individual high school’s notions of what constitutes college readiness. Even the best, brightest and most diligent high school students who easily meet admission requirements may find themselves struggling in entry-level courses. They may be eligible for admission and still not be prepared to succeed.

Knowledge and Skills for University Success, developed by Standards for Success (S4S), is the result of a two-year study in which more than 400 faculty and staff members from twenty research universities, all members of the Association of American Universities (AAU), participated in extensive meetings and reviews designed to identify what students must do to succeed in entry-level courses at their institutions. National academic content standards documents were analyzed and used for comparison. Multiple peer reviews were employed to hone the standards and ensure their validity, while consultants with expertise in standards development contributed suggestions for improvement. The resulting statements represent the most comprehensive and thoroughly grounded set of standards for college success yet developed.

The standards presented here are designed to create a new way to view college preparation. The standards, in combination with the accompanying CD-ROM and the S4S website, provide a road map of the content knowledge and habits of mind that are valued by leading research universities in the United States.

The faculty and staff members who participated in the process of developing these standards represent a wide range of academic viewpoints. One of the most dominant themes raised by participants is the importance of the habits of mind students develop in high school and bring with them to university studies. These habits are considered by many faculty members to be more important than specific content knowledge. The habits of mind include critical thinking, analytic thinking and problem solving; an inquisitive nature and interest in taking advantage of what a research university has to offer; the willingness to accept critical feedback and to adjust based on such feedback; openness to possible failures from time to time; and the ability and desire to cope with frustrating and ambiguous learning tasks. Other critical skills include the ability to express one’s self in writing and orally in a clear and convincing fashion; to discern the relative importance and credibility of various sources of information; to draw inferences and reach conclusions independently; and to use technology as a tool to assist the learning process rather than as a crutch.

The specific content knowledge identified in this document should be considered in relation to these overarching attributes and skills. Understanding and mastery of the content knowledge specified here is achieved
through the exercise of broader cognitive skills. It is not enough simply to know something; the learner must possess the ability to do something with that knowledge, whether it is to solve a problem, reach a conclusion or present a point of view. This plexus of content knowledge and cognitive skills is what an education at an American research university (and many other institutions of higher education) seeks to develop.

“Success” as defined by these standards means the ability to do well enough in college entry-level core academic courses to meet general education requirements and to continue on to major in a particular area. These two levels of success are denoted here by identifying separate standards: those intended for all students versus those intended for students wishing to major in the particular area of study.

Success in a university is different from success in high school in another important ways. Universities facilitate greater specialization than high schools. Therefore, some students may find that they are able to succeed in college even though their mastery in some areas of Knowledge and Skills for University Success is less well developed than in others. Students do not need to master all standards contained in this document at the same level. However, the more of the standards that a student has mastered, the more options the student will have and the more successful the student will be during the all-important initial year of college.

This document comprises six sections, each representing an academic content area. English, mathematics and second languages capture a relatively clear and distinct set of attributes associated with each respective discipline. Natural sciences and social sciences reflect the complexity of these areas, each of which encompasses a series of distinct academic disciplines. The standards in these two content areas are grouped into the skills that cut across the disciplines within the area along with accompanying listings of the key knowledge attributes for a number of disciplines within the area.

The arts section adopts a unique approach, due to the fact that arts classes do not fit as easily into the model of entry-level classes. Arts courses may be experienced for the first time by students at any point in their academic careers, making it more difficult to identify courses associated with first-year students. Additionally, the arts are uniquely complex in a number of other ways. First, the arts can be divided initially into the performing arts, where one performs or creates an artistic product; and arts appreciation, where one learns to enjoy or understand the arts. Second, areas within the arts require distinctly different technical skills. Music, art, dance and theatre have more distinct skill sets and knowledge than do biology and chemistry, or geography and history. Therefore, the arts standards are organized by area based on abilities derived from national arts standards documents and the expressed values of arts faculty.

The knowledge and skills standards enumerated in this document are general statements of expectations. The level of challenge required to meet any particular standard may be somewhat unclear without further definition. The necessary skill level could be interpreted anywhere from an entering student to a college graduate. To help clarify the level of expectation, a companion document includes examples of the work students produce when they meet the standard. The university work sample document is available by order (see page 6
10 Introduction
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The accompanying CD-ROM also contains a complete set of work samples spanning the standards. These illustrations help ground the standards' expectation level.

American research universities are complex, diverse environments. Not every faculty member will necessarily agree with every one of the Knowledge and Skills for University Success standards. In fact, spirited debate typifies American higher education. Therefore, the standards enumerated here should be considered a starting point for a continuing dialog about what is expected of entering students. This dialog will help shift the focus of discussion from course titles and grades to knowledge and skills. While perfect agreement may never be achieved, the process of seeking agreement will help clarify for students and teachers alike, at both the high school and postsecondary levels, what is expected and needed for success in college. To the degree that these materials further such a process, they will have achieved their goal.

As more and more states adopt academic content standards and accompanying assessment systems, the requirements for postsecondary success become increasingly important to understand. State high school standards and tests should have some relationship to university success, given that close to two-thirds of American high school graduates go on directly to some form of postsecondary education. Most importantly, the skills students develop to do well on state assessments should bear some relationship to the knowledge and skills for university success. The standards contained in this document are designed to help create a better connection between high school and university expectations.

Whether you are a student, parent, teacher or faculty member, I invite you to explore these materials in order to gain greater insight into what is required for university success. The accompanying CD-ROM contains specific recommendations and activities different audiences can pursue to put these standards into practice. I encourage you to make use of these materials in order to help improve the preparation and success of students as they move from high school to college.

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