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Agenda item 3.02.F

September 5, 2002

MEMORANDUM

To: Mr. Dalton B. Floyd, Jr., Chairman, and Members, Commission on Higher Education

From: Ms. Dianne Chinnes, Chairman, Committee on Academic Affairs and Licensing

**Consideration of Revision to College Course Prerequisites
Science Requirement**

Since 1984, the Commission has produced, in concert with the public universities in South Carolina, a listing of college preparatory course prerequisite requirements for high school students planning to attend college. Essentially, these requirements (see **Attachment 1** for the current list) inform students, parents, and teachers of the commonly agreed upon high school courses required for admission to public universities in the state, as agreed to by the Commission and the public universities in the state. These are not admissions requirements, which only the individual universities possess the authority to set, but rather a common set of high school courses that the Commission and the universities believe are vitally important in preparing students for college success.

At the April 25, 2002, meeting of the Advisory Committee on Academic Programs, Dr. Sandra Lindsey, Deputy Superintendent of the State Department of Education, proposed to the Commission and the university community the addition of physical science as the fourth required laboratory science for college admission in South Carolina. There was some degree of consensus among the Committee members that strengthening the lab science prerequisites *in the abstract* would help college-bound students prepare for their higher education careers. However, there was also concern voiced about the inability to require out-of-state students to take physical science or to monitor the specifics of physical science courses offered in other states. The Committee suggested that the Commission staff weigh the possible alternatives outlined at the April meeting and return to the Committee with a recommendation relative to possible modification of the College Course Prerequisites Requirements policy.

At the July 25, 2002, meeting of the Advisory Committee, the Commission staff proposed an amended version of the existing college course prerequisites language for

natural sciences, which the Committee approved. It is the Commission staff's belief that the physical sciences course, in its revised format, will indeed strengthen the ability of high school students to obtain the necessary core academic grounding in the laboratory sciences required for success in our public universities. The State Department of Education is to be commended for its efforts to ensure the quality of the course as a laboratory science, both through extensive curricular modification and the use of end-of-course testing. However, adding another course to the College Preparatory Course Prerequisite Requirements—which would increase their number to 21, only three shy of the State high school graduation requirement of 24 credits—would reduce the number of important electives available to college bound students sufficiently to warrant concern about the breadth of preparation inherent in the prerequisites.

Moreover, from a policy standpoint, the Commission staff does not believe that modifying the College Preparatory Course Prerequisites Requirements policy is an appropriate remedy for addressing enrollment and scheduling concerns in the state's high schools. The curriculum represented by the prerequisites is and must remain focused on preparing high school students to the best extent possible for success at our public universities—a charge that relates directly to enhancing college student proficiency in core, discipline-based subject matter at these same universities.

Thus, in the interest of strengthening the current prerequisites list without increasing the total number of credits contained in the policy, the Commission staff recommends that the following language be added as the last sentence under the existing section entitled "Three Units of Laboratory Science": "It is strongly recommended that students take physical science (taught as a laboratory science) as a **prerequisite** to the three required units of laboratory science outlined in this section." The Advisory Committee approved this recommendation at its July 25 meeting.

Owing to the State Department of Education's proposed Fall 2003 start-date for requiring all high school freshmen planning to attend a public university in South Carolina to take physical science and for the implementation of the end-of-course test for the course, at the suggestion of State Department of Education staff, the Commission staff recommends that the effective date for this change to the College Preparatory Course Prerequisites Requirements be Academic Year 2007-2008. This will mean that high school graduates who matriculate as first-year students to the public universities in Fall 2007 will have taken physical science as high school freshmen.

Recommendation

The staff recommends that the Committee on Academic Affairs and Licensing commend approval to the Commission of the following addition to the section entitled "Three Units of Laboratory Science" in the Commission's College Preparatory Course Prerequisites Requirements policy: "It is strongly recommended that students take physical science (taught as a laboratory science) as a **prerequisite** to the three required

units of laboratory science outlined in the section.” The effective date for this modification will be academic year 2007-2008. The Committee will consider this item at its meeting on September 4 and will make its recommendation to the Commission on September 5.

COLLEGE PREPARATORY COURSE PREREQUISITE REQUIREMENTS

EFFECTIVE DATE: ACADEMIC YEAR 2001-2002

FOUR UNITS OF ENGLISH: At least two units must have strong grammar and composition components, at least one must be in **English literature**, and at least one must be in **American literature**. Completion of **College Preparatory English I, II, III, and IV** will meet this criterion.

THREE UNITS OF MATHEMATICS: These include **Algebra I** (for which **Applied Mathematics I and II** may count together as a substitute if a student successfully completes **Algebra II**), **Algebra II**, and **Geometry**. A **fourth higher-level mathematics course is strongly recommended**. The fourth course should be selected from among **algebra III/trigonometry, precalculus, calculus, statistics, or discrete mathematics**.

THREE UNITS OF LABORATORY SCIENCE: Two units must be taken in two different fields and selected from among **biology, chemistry, or physics**. The third unit may be from the same field as one of the first two units (**biology, chemistry, or physics**) or from **any laboratory science** for which **biology and/or chemistry** is a **prerequisite**. Courses in earth science, general physical science, or introductory or general environmental science for which biology and/or chemistry is **not** a prerequisite will not meet this requirement.

TWO UNITS OF THE SAME FOREIGN LANGUAGE

THREE UNITS OF SOCIAL SCIENCE: One unit of **U.S. History** is required; a half unit of **Economics** and a half unit in **Government** are strongly recommended.

FOUR UNITS OF ELECTIVES: Four college preparatory units must be taken from at least **three** different fields selected from among **Computer Science, English, Fine Arts, Foreign Languages, Humanities, Laboratory Science** (excluding earth science, general physical science, general environmental science or other introductory science courses for which biology and/or chemistry is **not** a prerequisite), **Mathematics above the level of Algebra II**, and **Social Sciences**. It is suggested that one unit be in **Computer Science** which includes programming (i.e., not just keyboarding) and one unit in **Fine Arts** (appreciation of, history, or performance).

ONE UNIT OF PHYSICAL EDUCATION OR ROTC

NOTE: Each institution may make exceptions in admitting 1) students who do not meet all of the prerequisites, limited to those individual cases in which the failure to meet one or more prerequisites is due to circumstances beyond the reasonable control of the student or 2) students who have taken the Tech Prep (Applied Academics) courses rather than the required college preparatory curriculum described above and who meet all other institutional admissions criteria.