



PUBLIC SCHOOLS OF NORTH CAROLINA

STATE BOARD OF EDUCATION Howard N. Lee, *Chairman*

DEPARTMENT OF PUBLIC INSTRUCTION June St. Clair Atkinson, Ed.D., *State Superintendent*

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TO: LEA Superintendents
Charter School Directors

FROM: Elsie C. Leak, Associate Superintendent
Curriculum and School Reform Services

LMF
Louis M. Fabrizio, Director
Division of Accountability Services

E.C.L.

SUBJECT: Graduation and Testing Requirements in High School Science

North Carolina's science graduation requirements are explained in the purpose section of the 2004 North Carolina *Standard Course of Study (SCS)* in Science (on p.11). This letter is to provide a reminder and further clarification of these requirements.

The science graduation requirements for students in the Career Preparation, College Technical Preparation and College University Preparation Course of Study are 3 science credits: a biology course, an Earth/Environmental Science course and a physical science course.

Biology

Students can meet the biology graduation requirement with the *SCS* Biology course or some other biology course such as AP or IB Biology. Whichever course is taken, the course must include all of the goals and objectives of the *SCS* for Biology and the student must take the Biology End-of-Course (EOC) assessment. The EOC score must count at least 25% of the final course grade. Starting in 2006-07, students must make a level III or above on the Biology EOC to meet the new Exit Standards.

Earth/Environmental Science

Students can meet the Earth/Environmental Science graduation requirement with *SCS* Earth/Environmental Science or some other Earth/Environmental Science course such as AP Environmental Science or IB Environmental Systems. The course must include all of the goals of the *Standard Course of Study* Earth/Environmental Science course.

Physical Science

Students can meet the physical science graduation requirement with a course in Chemistry, Physics, Physical Science or the CTE course Principles of Technology I. We strongly recommend that students who take Principles of Technology I complete the CTE sequence with Principles of Technology II. Students taking Chemistry, Physics or Physical Science must take the corresponding North Carolina EOC assessment. The EOC score must count as at least 25% of the student's final course grade.

OFFICE OF THE STATE SUPERINTENDENT

June St. Clair Atkinson, Ed.D., *State Superintendent* | jatkinson@dpi.state.nc.us
6301 Mail Service Center, Raleigh, North Carolina 27699-6301 | (919) 807-3430 | Fax (919) 807-3445

AN EQUAL OPPORTUNITY/AFFIRMATIVE ACTION EMPLOYER

Honors, AP, or IB courses such as AP Chemistry, AP Physics B or IB Physics may also be used to meet the requirement providing that students take the corresponding North Carolina EOC assessment and the EOC score counts at least 25% of the student's final course grade. Whichever course is taken must meet all the goals and objectives of the *SCS* for that course. According to State Board of Education Policy HSP-C-003 (16 NCAC 6D.0305) students shall take the appropriate end-of-course assessment the first time the student takes the course. For example, students who take AP Physics B as their first high school physics course must take the North Carolina EOC assessment in Physics. We also strongly recommend that students in AP courses take the AP test, as this supports commitment to the rigor of the course and in some cases allows students to earn college credit for the course.

Principles of Technology I or Principles of Technology II can count as the physical science credit required for graduation. To meet the North Carolina graduation requirement of a physical science credit, only Principles of Technology I is required and only the VoCATS postassessment is required. However, to meet the UNC minimum entrance requirement for a single physical science credit, the student must successfully complete both Principles of Technology I and Principles of Technology II (and take the VoCATS postassessments). To be more competitive for college admission, the NCDPI allows the student and school to count Principles of Technology I as the Physical Science course and Principles of Technology II as the Physics course. In these cases, the student is required to take the corresponding Physical Science or Physics North Carolina EOC assessment, the school must use the corresponding Physical Science or Physics state course code; and the EOC score must count at least 25% of the student's final course grade.

Occupational Course of Study

For students following the Occupational Course of Study, two years of Life Skills Science satisfy the science graduation requirement. The curricula for these courses are available through the Exceptional Children's Division at the North Carolina Department of Public Instruction.

Science Courses taken in Middle School

The science courses must be taken in high school to count for graduation. A student who is accelerated and takes a course in middle school to meet one of these requirements should take a more advanced course in the same area in high school to meet the graduation requirement. If a student takes a course that requires an EOC assessment, the student is required to take the EOC assessment and the EOC score must count at least 25% of the student's final course grade.

Laboratory Courses

All of the North Carolina *SCS* Science courses are intended to be laboratory courses. While North Carolina does not specify a required number of hours to be spent in laboratory or particular laboratory exercises, the *SCS* does require that the students learn to use appropriate laboratory equipment for the discipline, and do laboratory science on a regular basis. Suggested laboratory activities are included in the support documents available for each course on the web.

For questions regarding the science graduation requirements, contact Eleanor Hasse at EEHasse@dpi.state.nc.us. For questions regarding EOC testing requirements, contact Iris Garner at igarner@dpi.state.nc.us.

JSA:LMF:sm

c: Janice Davis, Deputy Superintendent
Wandra Polk, Director, Secondary Education
LEA Science Curriculum Supervisors
LEA CTE Directors
Regional Accountability Coordinators