

### Exhibit P9.4: Examinations With Consequences for Students in Physics Programs (Tracks)

Reported by National Research Coordinators

Country	Examinations with Consequences for Individual Students	Grades at Which Examinations with Consequences for Individual Students are Given	Format of Examinations with Consequences for Individual Students	Comments
France	●	Grade 12	Written and oral examinations	Each subject examination grade is weighted differently according to the track students are attending. In the scientific track, mathematics and other science grades altogether are weighted as much as half the student's total grade average.
Italy	○	n/a	n/a	Students take a final examination at the end of each cycle (K8 and K13). For the transition from one school year to the next, the final evaluation is done through student achievement tests (written and oral), which take place throughout the school year. The school leaving examination (taken after five years of Liceo) consists of two national written examinations, one school written examination, and one school oral examination.
Lebanon	●	Grade 12	Written examinations	At the end of the third year of the secondary cycle or Grade 12, students have to pass the Official Baccalaureate exams for the four sections—life sciences, general sciences, economics, and humanities. The purpose of these exams is for the students to be able to continue with their university studies.
Norway	●	Grades 12 and 13	Written and oral examinations	A written examination is set and marked centrally (at national level) and an oral examination is prepared and marked locally. About 7% of the first year (Physics 1) students are sampled for an oral examination. About 60% of the second year (Physics 2) students are sampled for a national written examination, while about 20% are sampled for an oral examination.
Portugal	●	Grade 11	Written examinations	Nationwide final examinations are produced by an independent educational assessment public institute (IAVE, I. P.). The application and scoring of the examinations is coordinated by a National Exam Jury Board under the supervision of the General Education Directorate of the Ministry of Education.
Russian Federation	●	Grades 9 and 11	Written examinations	All high school graduates have to pass two mandatory Unified State Examinations (USE): mathematics and Russian language. Graduates of the Profile physics program (Grade 11) do not have to pass any mandatory examination in physics. Students take the USE in physics if they are seeking admission to university courses in physics, mathematics, chemistry, etc. The USE in physics is usually taken by about 25% of all high school graduates each year. Students' high school grades are not considered for university admission.
Slovenia	●	Grades 9 and 13	Written and oral examinations	Achievement on the Matura examination and achievement in the last two years of schooling are used to select students where there is a limit to the number of candidates for a university program. The Matura is prepared and administered by the National Examination Center.
Sweden	○	n/a	n/a	n/a
United States	○	n/a	n/a	Although there are no national exams with consequences for individual students, many high school students take Advanced Placement (AP) or International Baccalaureate (IB) courses that culminate with an end-of-course exam. Students can take these AP or IB written exams at a price and, if they score well, can earn course credit at many colleges and universities. In addition, to apply for admission to most colleges and universities in the United States, students in Grades 11 and 12 take written exams to demonstrate their readiness for college-level work. Private companies (e.g., ACT, College Board) offer these exams in different subjects to students for a price.

● Yes  
○ No

SOURCE: IEA's Trends in International Mathematics and Science Study – TIMSS Advanced 2015