

Course by Course Education Program (School of Physical Sciences)

Subject Code	Subject	Credit	Content of subject	
11120026	<u>Special Study on Physical Sciences I</u>	1	Compulsory subjects for five-year course students. Laboratory rotation programs in preparing for the selection of separate course education program in the latter period of graduate course, with the scope of having students obtain broader intelligence and high level speciality. Students are requested to study in three different research laboratories. One credit is given for the study in each laboratory during the first and second grade.	All faculty members
11120027	<u>Special Study on Physical Sciences II</u>	1		
11120028	<u>Special Study on Physical Sciences III</u>	1		
11120029	Seminar on Advanced Physical Science Research	4	An intensive course (seminar/lecture/instruction etc.) is individually provided to each graduate student who participates in the advanced research course in order to deepen his/her knowledge in one's specific research field(s) by his/her visiting (adhoc) supervisor(s). This subject can be taken at the institution of the individual visiting supervisor(s).	All faculties in the course
11120030	Exercise on Advanced Physical Science Research	4	Advanced experimental and/or theoretical exercises are provided to each graduate student who participates in the advanced research course in order to acquire his/her skill and capacity to promote one's specific research subject(s) by his/her visiting (adhoc) supervisor(s). As a general rule, this subject is taken at the institution of the individual visiting supervisor(s) appointed outside the institution of the student, hopefully in a foreign country.	All faculties in the course
11120031	Special Program of Big Project Research	2	In the program, students study the planning, development and operation of a big project and learn about the national strategy of science and technology development. Students are trained to obtain ability of making by themselves the planning and proposing a project as well as requesting funding and organizing project team.	All faculties in the course
11120032	Exercise on Project Research	4	In the exercise, students collaborate with young researchers for preparing a research planning. Based on the experience of collaboration, they are requested to make their own proposal in a big project.	All faculties in the course
11120053	Seminar on Research and Development	2	Lectures and/or seminars on the treatment of intellectual properties in research and development are given by the faculties, experienced engineers in the industry, or patent attorneys. The lectures are mainly focused on the current status of R&D in Japan in the field that is related to the research topic of the student, and procedures for international intellectual property rights as well. Students study the technology managements and planning scheme of R&D.	All faculties in the course
11120034	Exercise of Research and Development	4	Students exercise the treatments of intellectual properties in technology managements, through simulated experience of whole procedure of domestic patent application in Japan, examination request, actions against the result of the request, and so forth, with professional advice by experienced engineers in the industry or patent attorneys. Alternatively, students study schemes of research and development, in the field that is closely related to the student's research topic, through having experiences an internship at development sections of companies or collaborative researches with experienced engineers in the industry.	All faculties in the course
11120054	Exercise of Planning and Managing a Seminar for the Physical Science Field	1	The exercise aims to foster abilities of planning and managing scientific seminars. The students plan and manage "Seminars for physical science students" under the guidance of the faculties in the exercise.	The faculties in charge of seminars for physical science students

※Diagonal and underline [mandatory] means graduate students must take these,