Tempus Project n. 517340-TEMPUS-1-2011-1-IT-TEMPUS-SMGR

Documentation for Quality Assurance of Study Programmes (DoQuP)

**Example of Documentation for
Quality Assurance of Study Programmes
according to the DoQuP Model**

Bachelor in Physics

Documentation File - Annexes

March 2015

BACHELOR IN PHYSICS

Curriculum - Academic Year 2013-14

Year/ Semester	Didactic Unit	ECTS credits	Lecturer(s)
I/1°	Physics 1	6	Bernabeu Guillermo
…	…	…	…

BACHELOR IN PHYSICS

Name	*Physics 1*
Year / Semester	*I /1°*
Lecturer	*Bernabeu Guillermo*
Specific learning outcomes	*…*
Contents	*…*
Schedule	*…*
instructional forms of education	*Face to face, 60 hours*
Teaching techniques	*Lectures, 35 hours* *Practical classes, 20 hours* *Laboratory sessions, 5 hours*
Assessment methods	*Written and oral*
Assessment criteria	*…*
Assessment metrics	*Attribution of a final grade*
Criteria of attribution of the final grade	*…*
Preparatory didactic units	*Mathematics1*
Didactic material	*Bernabeu G., Physics 1, DoQuP Edition*

Name	*…*
…	*…*

BACHELOR IN PHYSICS

Characteristics of the Graduation Exam

Workload	…	4
Requirements to be fulfilled by the final work	…	
Criteria for the attribution of the graduation grade	…	

BACHELOR IN PHYSICS
Suitability of the curriculum to the achievement of the expected learning outcomes
Academic Year 2013-14

Learning outcomes	Didactic units which contribute to the accomplishment of the learning outcome
Ability to demonstrate knowledge and understanding of physics fundamentals in: classical mechanics, vibrations and waves, optics and spectroscopy, thermodynamics, electromagnetism, quantum physics. The level of this knowledge of core physics is a basic one, i.e. the level needed for working with established areas of applications but not as high as is needed for research at the frontiers of knowledge.	*Physics 1* *Physics 2*
…	…

BACHELOR IN PHYSICS

Teaching Staff - Academic Year 2013-14

Lecturer	Qualification *	Didactic units of the SP **	Didactic units of other SP **
Bernabeu Guillermo	FP	Physic 1 (ID)	Physics 2 (AD)
…			
Musaio Angelo	PR	Experimental Physics (C)	
…			

* FP: Full Professor; AP: Associate professor; …; PR: Professional.
** ID: Institutional Duty; AD: Additional Duty; …; C: Contract.

BACHELOR IN PHYSICS

Teaching Support Staff - Academic Year 2013-14

Didactic Unit	Support Teacher	Qualification	N. of hours of didactic workload	Task
Mathematics 1	Zich Michele	PhD Student	40	Practical Training
…				
Experimental Physics	Holzer David	Professional	12	Lab Assistance
…				

PHYSICS DEPARTMENT

Classrooms

Classroom	Number of seats	Audiovisual equipments	Web connection	Surveillance
PD1	*40*	*Videoprojector*	*Yes*	*1 auxiliary (9.00-13.00 14.00-18.00)*
…				

PHYSICS DEPARTMENT

Laboratories

Laboratory	Equipments	Work places / N. students per work place	Surveillance
Informatics	*30 PC*	*30 / 2*	*1 technician (9.00-13.00 14.00-18.00)*
Metrology	*Equipments for the measure of mechanical quantities*	*6 / 4*	*1 technician (9.00-13.00 14.00-18.00)*
…			

PHYSICS DEPARTMENT

Libraries

Library of the Physics Department	
Bibliographical material of interest for the didactic activities of the Bachelor in Physics	…
Web Connection	…
Services offered	…
Opening time and access rules	…
Librarian staff available	…

PHYSICS DEPARTMENT
Needs of financial resources for the didactic activities – Academic Year 2013-14

Expense Voices	€
Remuneration of the contract teachers	…
Remuneration of the support teachers	…
Updating of the equipments of the didactic laboratories	…
Maintenance of the didactic laboratories	…
Didactic material to be distributed to students	…
…	…

PHYSICS DEPARTMENT
Availability of financial resources for the didactic activities - A.Y. 2013-14

Financer Body	€	Available for
Central Administration of the University	…	*Remuneration of the contract teachers* *Remuneration of the support teachers*
Students' contributes	…	*Updating of the equipments of the didactic laboratories* *Maintenance of the didactic laboratories* *Didactic material to be distributed to students*
UBI Bank	…	*Updating of the equipments of the didactic laboratories*
…	…	…

BACHELOR IN PHYSICS

Partnerships for carrying out training periods outside University

Body	N. of students involved A.Y. 2010/11	N. of students involved A.Y. 2011/12	N. of students involved A.Y. 2012/13
…	…	…	…

BACHELOR IN PHYSICS

Partnerships for carrying out international mobility periods

Institution	N. of students in exit A.Y. 2010/11	N. of students in entrance A.Y. 2010/11	N. of students in exit A.Y. 2011/12	N. of students in entrance A.Y. 2011/12	N. of students in exit A.Y. 2012/13	N. of students in entrance A.Y. 2012/13
…	…	…	…	…	…	…

BACHELOR IN PHYSICS

Results of the assessment of the mastery of the admission requirements

	A.Y. 2010/11	A.Y. 2011/12	A.Y. 2012/13
N. of students with an admission grade between … and …			
…			
N. of students with an admission grade > …			

BACHELOR IN PHYSICS

Students enrolled in the first course year

	A.Y. 2010/11	A.Y. 2011/12	A.Y. 2012/13
Students enrolled in the first course year			
New enrolments			
Provenance from other study programmes			
…			
Students enrolled in the first course year subdivided per geographical provenance			
Residents in the same province			
Residents in the same region			
…			
Foreign students			
Students enrolled in the first course year subdivided per school of provenance			
…			
…			
…			
Students enrolled in the first course year subdivided per grade of the school-leaving examination			
N. of students with grade of the school-leaving examination between … and …			
…			
N. of students with grade of the school-leaving examination > …			

BACHELOR IN PHYSICS

Results of the tests for the assessment of the students' learning

Didactic units *	A.Y. 2010/11				A.Y. 2011/12				A.Y. 2012/13			
	N. of students **	N. of students who have overcome the exam ***	Medium grade	Variance	N. of students **	N. of students who have overcome the exam ***	Medium grade	Variance	N. of students **	N. of students who have overcome the exam ***	Medium grade	Variance
…	…	…	…	…	…	…	…	…	…	…	…	…

* In alphabetical order.

** Number of students who had the didactic unit in their study plan in the year under consideration.

*** With reference to the students who had the didactic unit in their study plan in the year under consideration.

BACHELOR IN PHYSICS

Enrolments in the different course years

	A.Y. 2010/11	A.Y. 2011/12	A.Y. 2012/13
N. of students enrolled in the 1st course year			
Students enrolled in the 2nd course year holding to the reference cohort*			
Total number of students enrolled in the 2nd course year			
Students enrolled in the 3rd course year holding to the reference cohort			
Total number of students enrolled in the 3rd course year			
Students enrolled in the 4th course year holding to the reference cohort			
Total number of students enrolled in the 4th course year			
Out-of-course students** holding to the reference cohort			
Total number of out-of-course students			

* Cohort: whole of the students enrolled in the first course year in the academic year of reference.

** University students who have failed to complete their course in the prescribed time.

BACHELOR IN PHYSICS

<div align="center">Dropouts</div>

	A.Y. 2010/11	A.Y. 2011/12	A.Y. 2012/13
Dropouts between the 1st and 2nd course year			
Students who have changed study programme in the same University			
Students who have changed University			
…			
Dropouts between the 2nd and 3rd course year			
Students who have changed study programme in the same University			
Students who have changed University			
…			
Dropouts between the 3rd and 4th course year			
Students who have changed study programme in the same University			
Students who have changed University			
…			

BACHELOR IN PHYSICS

<div align="center">

Credits acquired by the students passing from one course year to the successive one

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		A.Y. 2010/11	A.Y. 2011/12	A.Y. 2012/13
Students enrolled in the 2nd course year holding to the reference cohort	N. of students			
	Median of the acquired credits			
	Medium value of the acquired credits			
	Variance			
Students enrolled in the 3rd course year holding to the reference cohort	N. of students			
	Median of the acquired credits			
	Medium value of the acquired credits			
	Variance			
Students enrolled in the 4th course year holding to the reference cohort	N. of students			
	Median of the acquired credits			
	Medium value of the acquired credits			
	Variance			
Out-of-course students holding to the reference cohort	N. of students			
	Median of the acquired credits			
	Medium value of the acquired credits			
	Variance			

BACHELOR IN PHYSICS

Graduates

	A.Y. 2010/11	A.Y. 2011/12	A.Y. 2012/13
N. of graduates			
Graduates holding to the cohort of A.Y. 2009/10	-	-	
Graduates holding to the cohort of A.Y. 2008/09	-		
Graduates holding to the cohort of A.Y. 2007/08			
Graduates with graduation grade ≥ …			

BACHELOR IN PHYSICS
Questionnaire for the monitoring of the students' opinion on the didactic units

Identification of the didactic unit

At least: Academic Year / Study Programme / Didactic Unit

Questions

a) Organization of the didactic unit

Timetable of the educational activities
1. Is the timetable of the educational activities (lectures, seminars, exercises, laboratory activities, etc.) compatible with the possibility to attend the lectures of all the other didactic units and, at the same time, with your needs of individual study?
Possible answers: Yes / More yes than no / More no than yes / No

Prior knowledge
2. Was your prior knowledge sufficient to understand the topics covered by the didactic unit?
Possible answers: Yes / More yes than no / More no than yes / No

Study materials
3. Are the indicated, recommended or provided study materials (textbooks, presentations, etc.) adequate for the study and learning of the topics covered by the didactic unit?
Possible answers: Yes / More yes than no / More no than yes / No

Examination modalities
4. Have the examination modalities been clearly defined before the beginning of the didactic unit?
Possible answers: Yes / More yes than no / More no than yes / No

b) Teaching activity

Respect of the timetable of the educational activities
5. Have the educational activities (lectures, seminars, exercises, laboratory activities, etc.) been carried out according to the established timetable?
Possible answers: Yes / More yes than no / More no than yes / No

Respect of the didactic -unit syllabus
6. Do the topics developed in the didactic unit correspond to the established syllabus?
Possible answers: Yes / More yes than no / More no than yes / No

Effectiveness of the integrative educational activities[1]
7. Are the integrative educational activities (seminars, exercises, laboratory activities, etc.) coordinated with the lectures?
Possible answers: There are no integrative educational activities / Yes / More yes than no / More no than yes / No
8. Are the integrative educational activities (seminars, exercises, laboratory activities, etc.) effective for the learning of the discipline covered by the didactic unit?

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[1] Integrative educational activities: all the educational activities different from lectures (seminars, exercises, laboratory activities, etc.).

Possible answers: There are no integrative educational activities / Yes / More yes than no / More no than yes / No

Teaching skills of the lecturer
9. Does the lecturer present the topics in a clear and understandable way?
Possible answers: Yes / More yes than no / More no than yes / No
10. Does the lecturer stimulate the interest/motivate in the discipline covered by the didactic unit?
Possible answers: Yes / More yes than no / More no than yes / No

Availability of the lecturer for questions and explanations
11. Is the lecturer available for questions and explanations?
Possible answers: Yes / More yes than no / More no than yes / No

Teaching skills of teaching support staff [2]
12. Does the teaching support staff present the topics in a clear and understandable way?
Possible answers: There is no teaching support staff / Yes / More yes than no / More no than yes / No
13. Does the teaching support staff stimulate the interest/motivate in the discipline?
Possible answers: There is no teaching support staff / Yes / More yes than no / More no than yes / No

Availability of the teaching support staff for questions and explanations
14. Is the teaching support staff available for questions and explanations?
Possible answers: There is no teaching support staff / Yes / More yes than no / More no than yes / No

c) Facilities used by the didactic unit

Lecture rooms
15. Are the lecture rooms in which the educational activities have been carried out adequate (as for to get seated, to see well, to hear well, to write well)?
Possible answers: Yes / More yes than no / More no than yes / No

Premises and equipment for the integrative educational activities
16. Are the premises and equipment for the integrative study activities (seminars, tutorials, laboratories, etc.) adequate?
Possible answers: Yes / More yes than no / More no than yes / No

d) Interest and usefulness of the didactic unit

Interest of the didactic unit
17. Are the topics covered by the didactic unit of your interest?
Possible answers: Yes / More yes than no / More no than yes / No

Usefulness of the didactic unit
18. Do you think that the topics covered by the didactic unit will be useful for your future occupation/profession?
Possible answers: Yes / More yes than no / More no than yes / No

e) Further observations and suggestions

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[2] Teaching support staff: teachers in charge of exercises, teachers in charge of laboratory activities, etc..

BACHELOR IN PHYSICS
  Questionnaire for the monitoring of the students' opinion on the training periods outside University

Information on the student

At least: Study Programme / Year of enrolment / Number of credits accumulated before the start of the training period outside University

Information on the training period

At least: Company/Organization where the training period has been carried out / Topic of the training period / Duration of the training period (from … to …) / Total number of training hours

Questions

Interest of the topic(s) of the training period
1. Has the topic of the training period been of your interest?
Possible answers: Yes / More yes than no / More no than yes / No

Correspondence between planned and carried out training activities
2. Was there correspondence between planned and carried out training activities?
Possible answers: Yes / More yes than no / More no than yes / No

Duration and number of training hours of the training period
3. Have the duration of the training period and the number of training hours been adequate?
Possible answers: Yes / More yes than no / More no than yes / No

Effectiveness of the training period as for the improvement of the subject-area related competences[3]
4. Has the training period improved your subject-area related competences?
Possible answers: Yes / More yes than no / More no than yes / No

Effectiveness of the training period as for the improvement of the generic competences[4]
5. Has the training period improved your generic competences?
Possible answers: Yes / More yes than no / More no than yes / No

Company/organization tutoring
6. Has the company/organization tutoring been adequate?
Possible answers: Yes / More yes than no / More no than yes / No

Assessment of the hosting company/organization
7. Would you carry out again the training period in the same company/organization?
Possible answers: Yes / More yes than no / More no than yes / No

Further Observations and Suggestions

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[3] Subject-area related competences: competences specific to a field of study.

[4] Generic competences: competences common to any study programme.

BACHELOR IN PHYSICS
Questionnaire for the monitoring of the students' opinion on the periods of international mobility

Information on the student

At least: Study Programme / Year of enrolment / Number of credits accumulated before the start of the mobility

Mobility programme

At least: University and Department where the mobility has been carried out / Duration of the mobility (from … to …) / Number of credits to be accumulated according to the mobility programme / Number of credits accumulated at the end of the mobility period

Questions

Language knowledge
1. Was your knowledge of the language sufficient to understand the topics covered by the course units?
Possible answers: Yes / More yes than no / More no than yes / No

Usefulness of the course units
2. Have the course units you followed during the period of mobility been recognized as an integral part of your curriculum?
Possible answers: Yes / More yes than no / More no than yes / No

Organization of the course units
3. What is your assessment of the organization of the course units (timetable of the educational activities, workload required for the achievement of the learning outcomes, availability of study materials, definition of the examination modalities)?
Possible answers: Positive / More positive than negative / More negative than positive / Negative

Teaching activities
4. What is your assessment of the teaching activities (respect of the timetable of the educational activities, respect of the syllabus of the course units, effectiveness of the integrative educational activities[5], teaching skills of the lecturer and of teaching support staff, availability of the lecturers and of teaching support staff for questions and explanations)?
Possible answers: Positive / More positive than negative / More negative than positive / Negative

Facilities used by the course units
5. What is your assessment of the facilities used by the course units (lecture rooms, premises and equipment for the integrative educational activities, libraries)?
Possible answers: Positive / More positive than negative / More negative than positive / Negative

Examinations organization
6. What is your assessment of the examination organization (appeals, schedules, information, reservations, etc.)?
Possible answers: Positive / More positive than negative / More negative than positive / Negative

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[5] Integrative educational activities: all the educational activities different from lectures (seminars, exercises, laboratory activities, etc.).

<u>Support services</u>
7. What is your assessment of the tutoring service?
Possible answers: Positive / More positive than negative / More negative than positive / Negative

<u>Positive aspects of the mobility period</u>
8. What have been the positive aspects of your mobility period?

_____
_____

<u>Negative aspects of the mobility period</u>
9. What have been the negative aspects of your mobility period?

_____
_____

<u>Overall assessment of the mobility period</u>
10. What is your overall assessment of the mobility period?
Possible answers: Positive / More positive than negative / More negative than positive / Negative

<u>Assessment of the hosting University/Department</u>
11. Would you carry out the mobility period in the same University/Department again?
Possible answers: Yes / More yes than no / More no than yes / No

<u>Further Observations and Suggestions</u>

_____
_____

BACHELOR IN PHYSICS
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**Questionnaire for the monitoring of the final year students' opinion
on the educational process and on the student support services**

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Information on the graduate

At least: Age / Sex / Residence / Study Programme / Year of enrolment

Information on the carrying out of working activities
Example of question: Have you worked during the lecture periods?
Possible answers: Yes, full-time with continuity / Yes, part-time with continuity / Yes, but only occasionally, intermittently, seasonally/ No

Questions

a) Organization of the study programme

Individual learning and teaching path
1. Had you the possibility / have you been encouraged to design an individual learning and teaching path?
Possible answers: Yes / More yes than no / More no then yes / No

Organization of the didactic units
2. Has the overall organization of the didactic units (sequence of the course units in the syllabus, coordination among the course units, timetable of the educational activities) been satisfactory?
Possible answers: Yes / More yes than no / More no then yes / No

Required workload
3. Was the overall workload required by the didactic units for the achievement of the learning outcomes sustainable and appropriate to the duration of the SP?
Possible answers: Yes / More yes than no / More no then yes / No

Examination organization
4. Has the overall organization of examinations (appeals, schedules, information, reservations, etc.) been satisfactory?
Possible answers: Positive / More positive than negative / More negative than positive / Negative

Correspondence between the examination results and the student's preparation
5. Have the results of the examinations reflected your actual preparation?
Possible answers: Yes / More yes than no / More no then yes / No

Assistance to the preparation of the graduation exam
6. Has the assistance received during the preparation of the graduation exam been satisfactory?
Possible answers: Yes / More yes than no / More no then yes / No

b) Facilities used by the study programme

Logistic of the facilities used by the SP
7. What is your overall assessment of the logistic of facilities (lecture rooms, premises available for individual study, laboratories, including computer rooms) used by the SP?
Possible answers: Positive / More positive than negative / More negative than positive / Negative

<u>Library services</u>
8. What is your overall assessment of the library services (in particular: opening hours, access to lending and consultation, access to databases, availability and professionalism of the staff)?
Possible answers: Positive / More positive than negative / More negative than positive / Negative

c) Student support services

<u>Service offered by the student administrative office[6]</u>
9. What is your overall assessment of the service offered by the student administrative office/dean's office (in particular, access times, clarity of forms, availability and professionalism of the staff)?
Possible answers: I have not used this service / Positive / More positive than negative / More negative than positive / Negative

<u>Orienteering service for students in entrance/service offered by the Admission Office</u>
10. What is your overall assessment of the orienteering service for students in entrance/service offered by the Admission Office?
Possible answers: I have not used this service / Positive / More positive than negative / More negative than positive / Negative

<u>Tutoring service</u>
11. What is your overall assessment of the tutoring service?
Possible answers: I have not used this service / Positive / More positive than negative / More negative than positive / Negative

<u>Service for carrying out training periods outside University[7]</u>
12. What is your overall assessment of the service for carrying out training periods outside University?
Possible answers: I have not used this service / Positive / More positive than negative / More negative than positive / Negative

<u>Service for students' mobility[8]</u>
13. What is your overall assessment of the service for students' mobility?
Possible answers: I have not used this service / Positive / More positive than negative / More negative than positive / Negative

<u>Job placement service</u>
14. What is your overall assessment of the job placement service?
Possible answers: It was not present / I have not used this service / Positive / More positive than negative / More negative than positive / Negative

<u>Website of the University/Department/SP</u>
15. What is your overall assessment of the University/Department/SP website (in particular as for ease of navigation, completeness and update of information on the study programme, etc.)?
Possible answers: I have not used the website / Positive / More positive than negative / More negative than positive / Negative

d) Overall assessments

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[6] Student administrative office: Office that manage the students' career (enrolments in the different course years, management of the administrative practices, etc.).

[7] Training periods in national and/or international public and/or private bodies.

[8] Mobility periods in national and/or international Higher Education Institutions.

Assessment of the SP
16. Are you satisfied of the SP you attended?
Possible answers: Yes / More yes than no / More no than yes / No

Assessment of the University experience
17. If you could go back in time, would you enrol in University again?
Possible answers: Yes, in the same SP of this university / Yes, but in another SP of this university / Yes, in the same SP but in another university / Yes, but in another SP in another university / No, I would not enrol in university

BACHELOR IN PHYSICS

**Questionnaire for the monitoring of the graduates' job placement and
of the employed graduates' opinions on the education received**

Information on the employed graduate

Name and Surname / Age / Sex / Residence / Study Programme / Year of enrolment / Year of graduation

Questions

Graduate's current position/occupation
1. Which is your current position/occupation?
Possible answers: I am working in an area consistent with my qualification / I am working in a sector other than that of my qualification / I am looking for job / I am continuing or I intend to continue my studies / I am not looking for job and I do not intend to continue my studies / Other (military service, maternity leave, etc.)

Necessity of an educational qualification
2. Does your current position require an educational qualification equivalent to yours?
Possible answers: Yes, it is a requirement by law / It is not a requirement by law, but it is necessary / It is not a requirement by law, but it is still useful / It is not a requirement by law and is not useful

Utilization of the competences acquired at University
3. Are you using/Have you used the competences acquired at University in the activities you are carrying out/have carried out?
Possible answers: Yes / More yes than no / More no than yes / No

Time to full operativeness / profitability
4. How much time was needed to become fully operative / profitable?
Possible answers: Up to 3 months / Up to 6 months / Up to 1 year / More than 1 year

Usefulness of the training periods outside University[9]
5. Have the training periods carried out outside University helped you to enter the work environment?
Possible answers: I have not carried out any training period outside University /Yes / More yes than no / More no than yes / No

Usefulness of the mobility periods[10]
6. Have the carried out mobility periods helped you to enter the work environment?
Possible answers: I have not carried out any mobility period /Yes / More yes than no / More no than yes / No

Usefulness of the job placement service
7. Has the job placement service offered by the University been useful for finding a job?
Possible answers: A job placement service was not provided / I did not use the job placement service / Yes / More yes than no / More no than yes / No

Satisfaction on the acquired subject-area related competences[11]

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[9] Training periods in national and/or international public and/or private bodies.

[10] Mobility periods in national and/or international Higher Education Institutions.

[11] Subject-area related competences: competences specific to a field of study.

8. According to your working experience, what is your assessment of the education received by the attended SP as for the acquired subject-area related competences?
Possible answers: Positive / More positive than negative / More negative than positive / Negative

Missing subject-area related competences
9. If your assessment is not 'Positive', please list the main subject-area related competences that would have served you according to your working experience and that you have not acquired during your studies.
_____
_____

Satisfaction on the acquired generic competences[12]
10. According to your working experience, what is your assessment of the education received by the attended SP as for the acquired generic (making judgment, communication, team-working/leadership, lifelong learning) competences?
Possible answers: Yes / More yes than no / More no than yes / No

Missing generic competences
11. If your assessment is not 'Positive', please list the main generic competences that would have served you according to your working experience and that you have not acquired during your studies.
_____
_____

Main strengths of the attended SP
12. List the main strengths of the attended SP according to your opinion
_____
_____

Main weaknesses of the attended SP
13. List the main weakness of the attended SP according to your opinion
_____
_____

Overall assessment of the University experience
14. If you could go back in time, would you enrol in University again?
Possible answers: Yes, in the same SP of this University / Yes, but in another SP of this University / Yes, in the same SP but in another University / Yes, but in another SP in another University / No, I would not enrol in University

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[12] Generic competences: competences common to any study programme.

BACHELOR IN PHYSICS
Processes for the SP management and responsibilities for their management

Standards	Quality Requirements *(Note: this column is not present in the example of compilation on the Kion website)*	Fundamental Processes	Sub-processes	Position/s of responsibility/ies in charge of the processes / sub-processes	Position/s of responsibility/ies collaborating at the processes / sub-processes management *(optional)*	Documentation *
A - Needs and Objectives	A1 - Educational needs of the labour market	A1 - Identification of the educational needs of the labour market	Definition of the organisations representative of labour market to be consulted	*Council of the Bachelor in Physics*		*Minutes of the Council of Bachelor in Physics*
			Definition of the methods and schedule of the consultation	*Council of the Bachelor in Physics*		*Minutes of the Council of Bachelor in Physics*
			Identification of the educational needs of the labour market	*University / Labour Market Committee of the Bachelor in Physics*		*Minutes of the University / Labour Market Committee of the Bachelor in Physics*
	A2 - Educational objectives	A2 - Definition of the educational objectives		*Council of the Bachelor in Physics*		*Minutes of the Council of Bachelor in Physics / Student's Guide*
	A3 - Learning outcomes	A3 - Definition of the learning outcomes	Definition of the learning outcomes	*Council of the Bachelor in Physics*		*Minutes of the Council of Bachelor in Physics / Student's Guide*
			Comparison with the learning outcomes of other study programmes of the same typology	*European Network of Physics Institutions*		*ENPI Report "Characteristics of European Bachelors in Physics"*
B - Educational process	B1 - Admission qualifications and requirements	B1 - Definition of the admission qualifications and requirements	Definition of qualifications and requirements for the admission to the SP	*Ministry of Education, University and Research*		*Ministerial Decree 22 February 2011, n. 45*
			Assessment of the mastery of the admission requirements	*Ministry of Education, University and Research*		*Ministerial Decree 22 February 2011, n. 45*
			Definition of the criteria of admission	*Ministry of Education, University and*		*Ministerial Decree 22 February 2011, n. 45*

			Research		
B2 - Design and planning of the educational process	B2 - Design and planning of the educational process	Definition of the curriculum	*Council of the Bachelor in Physics*	*Design and Revision Commission of the Bachelor in Physics*	*Minutes of the Council of Bachelor in Physics / Student's Guide*
		Definition of the characteristics of the didactic units	*Council of the Bachelor in Physics*	*Didactic Commission of the Bachelor in Physics*	*Minutes of the Council of Bachelor in Physics / Student's Guide*
		Definition of the characteristics of the graduation exam	*Council of the Bachelor in Physics*		*Minutes of the Council of Bachelor in Physics/ Student's Guide*
		Documentation of the suitability of the curriculum to the achievement of the expected learning outcomes	*Council of the Bachelor in Physics*		*Minutes of the Council of Bachelor in Physics*
		Definition of the criteria for students' progression in their studies	*Council of the Bachelor in Physics*		*Minutes of the Council of Bachelor in Physics/ Student's Guide*
		Definition of calendar and timetable of didactic units and exams	*Council of the Physics Department*		*Minutes of the Council of the Physics Department*
B3 - Realization of the educational process	B3 - Realization of the educational process	Control of the correspondence of the development of the educational process with the designed and planned development	*President of the Council of the Bachelor in Physics / Quality Presidium*		*Minutes of the Council of Bachelor in Physics / Web Site of the Bachelor in Physics*
		Control of the adequacy of the assessment tests to the learning outcomes and of the correctness of the evaluation of the students' learning	-		-
C1 - Teaching staff	C1 - Identification	Identification of the needs of teaching	*Council of the Bachelor in*		*Minutes of the Council of*

			staff	*Physics*		*Bachelor in Physics*
		and put at disposal of the teaching staff	Put at disposal of the teaching staff	*Council of the Physics Department*		*Minutes of the Council of the Physics Department*
			Identification of the needs of teaching support staff	*Council of the Bachelor in Physics*		*Minutes of the Council of Bachelor in Physics*
			Put at disposal of the teaching support staff	*Council of the Physics Department*		*Minutes of the Council of the Physics Department*
	C2 - Facilities	C2 - Identification and put at disposal of facilities (in particular: lesson rooms, laboratories, libraries)	Identification of the needs of classrooms	*Council of the Bachelor in Physics*		*Minutes of the Council of Bachelor in Physics*
			Put at disposal of classrooms	*Council of the Physics Department*		*Minutes of the Council of the Physics Department*
			Identification of the needs of rooms for individual study	*Council of the Bachelor in Physics*		*Minutes of the Council of Bachelor in Physics*
			Put at disposal of rooms for individual study	*Council of the Physics Department*		*Minutes of the Council of the Physics Department*
			Identification of the needs of laboratories	*Council of the Bachelor in Physics*		*Minutes of the Council of Bachelor in Physics*
			Put at disposal of laboratories	*Council of the Physics Department*		*Minutes of the Council of the Physics Department*
			Identification of the needs of libraries	*Council of the Bachelor in Physics*		*Minutes of the Council of Bachelor in Physics*
			Put at disposal of libraries	*Council of the Physics Department*		*Minutes of the Council of the Physics Department*
	C3 - Financial resources *(optional)*	C3 - Identification and put at disposal of financial	Identification of the needs of financial resources	*Council of the Bachelor in Physics*		*Minutes of the Council of Bachelor in Physics*
			Put at disposal of	*Council of the*		*Minutes of the*

		resources	financial resources	*Physics Department*		*Council of the Physics Department*
C4 - Student support services	C4 - Organisation and management of student support (orienteering, tutoring and assistance) services	Organisation and management of student administrative office	*Student Administrative Office of the University – Sector School of MPN Science*		*Web Site of the Student Administrative Office of the University*
		Organisation and management of orienteering service for students in entrance	*Orienteering Service for Students in entrance of the School of MFN Sciences*		*Web Site of the Orienteering Service for Students in entrance of the School of MFN Sciences*
		Organisation and management of tutoring service	*Tutoring Service of the Physics Department*		*Web Site of the Tutoring Service of the Physics Department*
		Organisation and management of service for the carrying out of training periods outside University	*Service for the carrying out of training periods outside University of the School of MFNSciences*		*Web Site of the Service for the carrying out of training periods outside University of the School of MFNSciences*
		Organisation and management of service for the students' international mobility	*Service for the students' international mobility of the School of MFNSciences*		*Web Site of the Service for the students' international mobility of the School of MFNSciences*
		Organisation and management of job placement service	*Job Placement Service of the School of MFNSciences*		*Web Site of the Job Placement Service of the School of MFNSciences*
C5 - Partnerships	C5 - Establishment of partnerships with national and international businesses, research institutions and other Higher Education Institutions for	Definition of the partnerships for carrying out training periods outside University	*Council of the Physics Department*		*Minutes of the Council of the Physics Department / Student's Guide*
		Definition of the partnerships for carrying out international mobility periods	*Council of the School of MFNSciences*		*Minutes of the Council of the School of MFNSciences / Student's Guide*

		the development of students' external education and mobility				
D - Monitoring and Results	D1 - Entrance students	D1 - Monitoring of the entrance students	Monitoring of the assessment of the mastery of the admission requirements *(only for first cycle and integrated programmes)*	*Quality Presidium*		*Web Site of the Quality Presidium*
			Monitoring of the enrolments in the first course year	*Quality Presidium*		*Web Site of the Quality Presidium*
	D2 - Students' learning	D2 - Monitoring of the students' learning		*Quality Presidium*		*Web Site of the Quality Presidium*
	D3 - Students' progression in their studies	D3 - Monitoring of the students' progression in their studies		*Quality Presidium*		*Web Site of the Quality Presidium*
	D4 - Students' opinion on the educational process	D4 - Monitoring of the students' opinion on the educational process	Monitoring of the students' opinion on the didactic units	*Quality Presidium*		*Web Site of the Quality Presidium*
			Monitoring of the students' opinion on the training periods outside University	*Quality Presidium*		*Web Site of the Quality Presidium*
			Monitoring of the students' opinion on the periods of international mobility	*Quality Presidium*		*Web Site of the Quality Presidium*
			Monitoring of the opinion of the final year students on the educational process and on the student support services	*Quality Presidium*		*Web Site of the Quality Presidium*
	D5 - Graduates' placement	D5 - Monitoring of the graduates' placement	Monitoring of the graduates' job placement	*Quality Presidium*		*Web Site of the Quality Presidium*
			Monitoring of the	*Student*		*Web Site of the*

		prosecution of the studies in the second cycle programmes *(only for first cycle programmes)*	*Administrative Office of the University – Sector School MPNSciences*		*Student Administrative Office of the University*
		Monitoring of the employed graduates' opinions on the education received	*Quality Presidium*		*Web Site of the Quality Presidium*
		Monitoring of the employers' opinion on the graduates' education *(optional)*	*Quality Presidium*	-	-
E - Management System for Quality	E1 - Policy and organization for quality assurance	E1- Definition of the policy and organization for quality assurance	*Academic Senate*		*Document "Policy of the DoQuP University for the quality assurance of the study programmes" of the Academic Senate / Web Site of the Quality Presidium*
	E2 - Management system of the study programme	E2- Definition of the management system of the study programme	*Academic Senate / Quality Presidium*		*Web site of the Quality Presidium*
	E3 - Revision	E3 - Revision	*Council of the Bachelor in Physics*	*Design and Revision Commission of the Bachelor in Physics*	*Revision Report*
	E4 - Publicity of information	E4 - Publicizing of information on the study programme	*Council of the Bachelor in Physics*	*Didactic Comission of the Bachelor in Physics*	*Web Site of the Bachelor in Physics*

* Indicate in which document the activities and/or the results of the process under consideration are registered.

BACHELOR IN PHYSICS

Positions of responsibility

Positions of responsibility *	Appointment **	Composition ***
Ministry of Education, University and Research	-	…
Academic Senate	*Statute, art. 15*	*See Staute, art. 15*
Quality Presidium	…	…
Evaluation Committee	…	…
European Network of Physics Institutions	…	…
Council of the School of MFN Sciences	…	…
Council of the Physics Department	…	…
President of the Council of the Bachelor in Physics	…	…
Council of the Bachelor in Physics	…	…
University / Labour Market Committee of the Bachelor in Physics	…	…
Design and Revision Commission of the Bachelor in Physics	…	…
Didactic Commission of the Bachelor in Physics	…	…
Student Administrative Office of the University - Sector School of MPN Science	…	…
Orienteering Service for Students in entrance of the School of MFN Sciences	…	…
Tutoring Service of the Physics Department	…	…
Service for the development of training periods outside University of the School of MFN Sciences	…	…
Service for the students' international mobility of the School of MFN Sciences	…	…
Job Placement Service of the School of MFN Sciences	…	…

* List all the positions of responsibility for the management of the SP.

** Indicate the document where the position of responsibility under consideration is appointed.

*** Provide the composition of the position of responsibility under consideration (only in case of Commissions, Committees, Working Groups, etc.).

BACHELOR IN PHYSICS

Standard A - **Needs and Objectives**	
Quality Requirement A1 - Educational needs of the labour market	
Are the consulted organisations representative of the production, services and professions world and the methods and schedule of consultation adequate in order to identify the educational needs of the labour market?	**Strength and weakness points** …
	Improvement actions …
Have the educational needs of the labour market of reference been identified in a way useful to the definition of the educational objectives and of the learning outcomes of the SP, i.e. in terms of professional profiles and/or functions/roles/activities expected for the graduates and of the associated required competences?	**Strength and weakness points** …
	Improvement actions …
Quality Requirement A2 - Educational objectives	
Have the educational objectives of the SP been established in terms of professional profiles of the graduates and/or roles/activities students are to be prepared for and associated competences to be developed and obtained by the students during the learning process?	**Strength and weakness points** …
	Improvement actions …
Are the educational objectives of the SP consistent with the mission of the institution the SP belongs to and the educational needs of the labour market of reference?	**Strength and weakness points** …
	Improvement actions …
Quality Requirement A3 - Learning outcomes	
Have the learning outcomes of the SP been established in terms of what students are expected to know, understand and/or be able to demonstrate after completion	**Strength and weakness points** …
	Improvement actions …

of the educational process?	
Are the learning outcomes of the SP consistent with the established educational objectives?	**Strength and weakness points** …
	Improvement actions …
Are the learning outcomes of the SP comparable with the learning outcomes of other SPs of the same typology?	**Strength and weakness points** …
	Improvement actions …
Standard B - Educational process	
Quality Requirement B1 - Admission qualifications and requirements	
Are the qualifications and requirements for the admission to the SP adequate for a profitable participation of the students to the established educational activities, in particular of the first course year?	**Strength and weakness points** …
	Improvement actions …
Do the methods of assessment allow to check the effective mastery of the admission requirements by the students?	**Strength and weakness points** …
	Improvement actions …
Quality Requirement B2 - Design and planning of the educational process	
Are the curriculum and the characteristics of the didactic units and of the graduation exam consistent with the established learning outcomes?	**Strength and weakness points** …
	Improvement actions …
Do the assessment methods and criteria provide evidence of their capacity to check the effective achievement of the intended learning outcomes by the students and ensure trust that the level of achievement by the students is assessed in a credible way?	**Strength and weakness points** …
	Improvement actions …
Has the SP established appropriate criteria for the students' progression in their studies?	**Strength and weakness points** …
	Improvement actions …

Has the development of the educational process been planned in such a way that students are able to achieve the SP learning outcomes in the expected time, according to a gradual process and activities coherent and coordinated with each other?	**Strength and weakness points** …
	Improvement actions …
Quality Requirement B3 - Realization of the educational process	
Has the SP developed the educational process coherently with the designed and planned development?	**Strength and weakness points** …
	Improvement actions …
Does the SP control the development of the educational process, in order to check its correspondence with the designed and planned development?	**Strength and weakness points** …
	Improvement actions …
Does the SP control the adequacy of the assessment tests to the learning outcomes and the correctness of the evaluation of the students' learning?	**Strength and weakness points** …
	Improvement actions …
Standard C - Resources	
Quality Requirement C1 - Teaching staff	
Are the lecturers appointed according to pre-definite criteria of choice or selection?	**Strength and weakness points** …
	Improvement actions …
Is the teaching staff quantitatively and qualitatively adequate for the achievement of the established learning outcomes?	**Strength and weakness points** …
	Improvement actions …
Do the SP or the structure the SP belongs to offer the teaching staff the opportunity to improve their teaching skills and reach acceptable standards?	**Strength and weakness points** …
	Improvement actions …
Is the teaching support staff qualitatively adequate for the achievement of the established learning outcomes?	**Strength and weakness points** …
	Improvement actions …
Quality Requirement C2 - Facilities	

Are the facilities at disposal of the SP, with the associated equipment, quantitatively and qualitatively adequate for the development of the established educational activities with the established didactic methods?	**Strength and weakness points** …
	Improvement actions …
Quality Requirement C3 - Financial resources *(optional)*	
Are the financial resources at disposal of the SP adequate for the development of the educational process according to the designed and planned activities?	**Strength and weakness points** …
	Improvement actions …
Quality Requirement C4 - Student support services	
Has the SP at disposal student support (orienteering, tutoring and assistance) services relevant to the educational process and able to make students' learning and studies progression easier?	**Strength and weakness points** …
	Improvement actions …
Quality Requirement C5 - Partnerships	
Are the partnerships with public and/or private bodies for the carrying out of training periods outside University adequate quantitatively and qualitatively to the achievement of the intended learning outcomes?	**Strength and weakness points** …
	Improvement actions …
Are the partnerships with foreign Universities or other Higher Education Institutions for the international mobility adequate quantitatively and qualitatively to the achievement of the intended learning outcomes?	**Strength and weakness points** …
	Improvement actions …
Standard D - Monitoring and Results	
Quality Requirement D1 - Entrance students	
Does the SP monitor the entrance students in order to check their mastery of the admission requirements? *(only for the first cycle and integrated programmes)*	**Strength and weakness points** …
	Improvement actions …
Do the results of the	**Strength and weakness points**

monitoring of the entrance students provide evidence of the SP attractiveness?	… **Improvement actions** …
Quality Requirement D2 - Students' learning	
Does the SP monitor the students' learning in order to check the effectiveness of the didactic units?	**Strength and weakness points** …
	Improvement actions …
Do the results of the monitoring of the students' learning in provide evidence of the effectiveness of the didactic units?	**Strength and weakness points** …
	Improvement actions …
Quality Requirement D3 - Students' progression in their studies	
Does the SP monitor the students' progression in their studies (in particular: enrolments in the different course years and dropouts, number of credits acquired at the end of each course year, time to graduation) in order to check the effectiveness of the educational process?	**Strength and weakness points** …
	Improvement actions …
Do the results of the monitoring of the students' progression in their studies provide evidence of the effectiveness of the educational process?	**Strength and weakness points** …
	Improvement actions …
Quality Requirement D4 - Students' opinions on the educational process	
Does the SP monitor the students' opinion on the educational process (in particular: students' opinion on the didactic units, on the training periods outside University, on the periods of international mobility; final year students' opinion on the educational process and on the student support services) in order to check the perceived adequacy and effectiveness?	**Strength and weakness points** …
	Improvement actions …
Do the results of the monitoring of the students' opinion on the educational process provide evidence of the adequacy and	**Strength and weakness points** …
	Improvement actions …

effectiveness of the educational process and of the student support services?	

Quality Requirement D5 - Graduates' placement	
Does the SP monitor the graduates' placement (in particular: graduates' job placement, prosecution of the studies in the second cycle programmes by first cycle graduates *(only for first cycle programmes)*, employed graduates' opinions on the education received, employers' opinion on the graduates' education *(optional))* in order to check the qualification spendability, the correspondence of the SP educational objectives to and the adequacy of the SP learning outcomes for the educational needs of the labour market?	**Strength and weakness points** …
	Improvement actions …
Do the results of the monitoring of the graduates placement provide evidence of the qualification spendability, of the correspondence of the SP educational objectives to and of the adequacy of the SP learning outcomes for the educational needs of the labour market?	**Strength and weakness points** …
	Improvement actions …

Standard E - Management system for quality	

Quality Requirement E1 - Policy and organization for quality assurance	
Has the institution the study programmes belongs to a public quality assurance policy and an effective organization for the quality assurance of study programmes?	**Strength and weakness points** …
	Improvement actions …

Quality Requirement E2 - Management system of the study programme	
Has the SP adopted an adequate and effective	**Strength and weakness points** …

management system, through the identification of the processes for a management for quality of the SP and the definition of an adequate organisational structure?	**Improvement actions** …
Quality Requirement E3 - Revision	
Does the SP periodically revise needs and objectives, educational process, resources, results and management system, in order to guarantee their constant adequacy and effectiveness and promote the improvement of the effectiveness of the processes for the SP management and of the associated results?	**Strength and weakness points** …
	Improvement actions …
Quality Requirement E4 - Publicity of information	
Does the SP make public full, up to date, easily acquired information, both quantitative and qualitative, on SP objectives, educational process, resources, results and management system?	**Strength and weakness points** …
	Improvement actions …