



ANALYSIS OF THE PROPOSED STUDY PROGRAMME

1. GENERAL INFORMATION ON THE STUDY PROGRAMME			
Name of the study programme	Chemistry and Chemical Engineering (Postgraduate University (Doctoral) Study)		
Proponent of the study programme	Faculty of Chemistry and Technology University of Split		
Co-proponent of the study programme			
Type of the study programme	Vocational/professional study programme <input type="checkbox"/>	University study programme <input checked="" type="checkbox"/>	
Study programme level	Undergraduate <input type="checkbox"/>	Graduate <input type="checkbox"/>	Integrated <input type="checkbox"/>
	University Postgraduate <input checked="" type="checkbox"/>	Specialist Postgraduate <input type="checkbox"/>	Specialist Graduate <input type="checkbox"/>
Academic/vocational title acquired upon completion of the study programme	Doctoral or Ph.D. degree in natural sciences, in the field of chemistry Doctoral or Ph.D. degree in technical sciences, in the field of chemical engineering		

2. GENERAL SECTION	
Are the reasons for initiating the proposed study programme justified?	
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Explanation: The initiation of the proposed study programme is in accordance with a recommendation of a re-accreditation procedure and targets a greater (international) visibility of research outcomes by the creation of a much wider field of scientific research and research clusters, as well as to raise the quality level of the postgraduate doctoral studies, and in the end, to ensure further growth and development of the region by improving its human capital and encouraging investment, innovation, and new technologies.
Do the contents of the proposed study programme pertain to the stated field of science/arts?	
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Explanation: The combination of courses, seminars, research activities and other activities for which credits are awarded are perfectly relevant for the field.
Does the study programme have a purpose, with regards to the needs of the labour market?	
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Explanation: Doctors of science in chemistry and chemical engineering have a very broad range of employment options, ranging from education and academia, over government, to industry. The labour market and the relevance of the programme for the regional development is clearly indicated.
Is the study programme comparable to study programmes of EU member states?	
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Explanation: The proposed study programme is comparable with similar study programmes at universities in other EU member states, including transferable


	skills, disciplinary competences and obtain research skills. Specific comparison to programmes at Belgian and Dutch universities was made.
Is the study programme comparable to study programmes in the Republic of Croatia?	
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Explanation: The proposed study programme is comparable with the ones of the Faculty of Chemical Engineering and Technology and the Faculty of Science at University of Zagreb.
Is the study programme open to student mobility (horizontal, vertical within Croatia and international)?	
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Explanation: The organization of the programme, with a number of courses in the first year (4-6) and a full focus on research activities in the second and third year, enables students to select courses at other institutions, as well as to have research stays at other (international) institutions in the context of their research project.
Is continuation of education possible afterwards?	
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Explanation: Although the doctoral degree is the highest degree at the academic level, it is at the same time 'just' a step in the life-long learning process required of everyone in research and innovation, whether in academics or in industry. In this sense, the continuation of education is not only possible, but needed.
Have the learning outcomes been determined in accordance with the demands of the labour market, vocational associations and general needs of the society?	
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Explanation: They are in line with the recommendations of the chief national professional associations dedicated to the relevant scientific fields, (the Croatian Chemical Society and the Croatian Society of Chemical Engineers and Technologists), on further developing the scientific fields of chemistry and chemical engineering throughout Croatia.
Does the study programme anticipate cooperation with scientific institutes, the economy and public sector?	
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Explanation: Cooperation with several academic partners and partners from outside the system of higher education, including health care and industrial partners, are either already ongoing or are being anticipated.

3. DESCRIPTION OF THE STUDY PROGRAMME	
Are the learning outcomes on both the study programme and the course level clearly presented and possible to implement?	
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Explanation: The learning outcomes on both levels are clearly presented and their implementation is highly feasible.
Do learning outcomes correspond to the acquisition of skills necessary for the next level of study?	
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Explanation: Strictly speaking, there is no next level of study, but the learning outcomes correspond to the acquisition of skills expected for a doctoral study, including a life-long learning attitude.
Do the competences acquired upon finishing the study programme guarantee employability and continuation of study?	
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Explanation: There is a clear and urgent need for researchers in chemistry and chemical engineering to contribute to innovation and to solving the rapid changes our

	society is currently going through with more sustainable development high on the international agenda. This need is present both in academics and in industry, and both at the national and international level, and guarantees employability of the doctoral graduates.
Is the study programme well designed as a whole and does it correspond to the modern scientific knowledge?	
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	<p>Explanation:</p> <p>The study programme, with its combination of mandatory courses developing generally needed skills and more elective specialized courses (the student can also enrol for 10 ECTS in other universities) satisfies the build-up of modern scientific knowledge needed in a doctoral study. A good number of courses is directly relevant in the context of sustainable development.</p> <p>Suggestions:</p> <p>(1) activities like the mentoring of BA/MA theses and outreach activities to schools and the community (science festivals,...) could also be taken into account for acquiring ECTS in the 'other activities' category. Mentoring and guiding other researchers and staff will be a quite important part in the career of many doctors.</p> <p>(2) training in writing funding and grant proposals, currently absent in the programme, could be relevant to include.</p>
Are the teaching methods (types of instruction) well designed and appropriate for the study programme?	
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	<p>Explanation:</p> <p>Both the mandatory and elective courses include an appropriate mix of teaching and assessment approaches.</p>
Do the anticipated student obligations enable the achievement of the set learning outcomes?	
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	<p>Explanation:</p> <p>As both the learning outcomes and the programme approach are similar to those of programmes running at other European universities, the achievement of the learning outcomes can be expected.</p>
Does the number of ECTS points assigned to individual courses correspond to the volume of subject material and the assigned hours of instruction? State the courses for which it does not.	
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	<p>Explanation:</p> <p>Note that the "<i>Public defense of the topic of the doctoral dissertation</i>" is tabulated as 5 ECTS, but is mentioned with 8 ECTS in the text.</p>
Are the courses/modules interconnected, i.e. is there a logical connection between prerequisites and the sequence of courses?	
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	<p>Explanation:</p> <p>The build-up of the doctoral study programme, with its mandatory and elective courses in the first semester, and seminars in the following semesters is fine.</p>
State possible remarks regarding the description of an individual course (learning outcomes, contents, literature...)	
Explanation: No remarks	
State possible remarks regarding the competences of teachers on individual courses.	
For one course (Supramolecular Chemistry, Prof. Marina Tranfić Bakić), no previous teaching experience in a similar course is mentioned, but her cv clearly indicates sufficient teaching experience (12 years) and clear research experience in the field.	

4. STUDY PROGRAMME CONDITIONS PERTAINING TO VENUE AND STAFF	
Does the proposed teaching and scientific staff possess the necessary competences for running the study programme?	
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Explanation: A total of 27 teachers is involved in the programme, including full (11), associate (8) and assistant professors (7). Except one, all teachers have earlier experience in teaching similar courses as those for which they are responsible in the programme.
Are the technical and material conditions for running the study programme satisfactory?	
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Explanation: The Faculty of Chemistry and Technology has a very recent (2015) and large building, as well as a state-of-the-art research infrastructure that is highly relevant for the doctoral programme.
With regards to the staff, venue and equipment, is the number of students adequate?	
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Explanation: An admission quota of 10 to 15 applicants (per year) is mentioned, indicating about 40-50 PhD students for a 3-year programme that can be extended. This seems adequate based on the size of the institution and its number of teaching/research staff.

5. FINAL RECOMMENDATION	
<input checked="" type="checkbox"/>	Accept the proposed study programme
<input type="checkbox"/>	Accept the proposed study programme with minor alterations
Requested minor alterations:	
<input type="checkbox"/>	Accept the proposed study programme with major alterations
Requested major alterations:	
<input type="checkbox"/>	Reject the proposed study programme
Further explanation:	

REVIEWER	
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