

POLITEHNICA University of Bucharest (**UPB**)
 Faculty of Industrial Engineering and Robotics (**FIIR**)
 Study Programme: Industrial Engineering (**IE**)
 Form of study: Licence (Bachelor)

COURSE SPECIFICATION

Course title	Quality Assurance	Semester	8
Course code	UPB.06.D.08.O.003	Credits (ECTS)	7

Course structure	Lecture	Seminar	Laboratory	Project	Total hours
<i>Number of hours per week</i>	3		1	2	6
<i>Number of hours per semester</i>	42		14	28	84

Lecturer	Lecture	Seminar / Laboratory / Project
<i>Name, academic degree</i>	Irina SEVERIN, Prof., PhD	Maria Cristina DIJMĂRESCU, Lecturer PhD
<i>Contact (email, location)</i>	irina.severin@upb.ro	cristina_dijmarescu@yahoo.com

Course description
<p>What does quality mean in the global economy, how the customer may intervene and regulate the market, what are the standards and what about their dynamics, how much does the quality cost ? These should be certain starting points for debates with the students.</p> <p>The course is focused on the design, implementation and continuous improvement of quality management systems in industrial organizations and supplier chains, respectively the commitment for quality, the QMS documentation design, quality management related standards for organizations' performance improvement and sustainable development.</p> <p>Core attention is paid to quality certification : conformity certification, product and quality management system certification, european conformity label CE, certification bodies, procedures and related costs, personel certification, supplier conformity declaration, laboratories accreditation in accordance to ISO 17025, impact of conformity certification on consumer (briefly, consumer protection legislation).</p>
Laboratory & Project description
<p>The Laboratory intends to familiarize the students with quality inspection techniques, together with filling in specific quality registrations and critical application of quality tools.</p> <p>The project is focused on drafting quality documentation and the quality plan for a product. ISO 9001:2015 will be considered as reference for the QMS design and assessment. Team work will be privileged and encouraged.</p>
Intended learning outcomes
<p>Standards, norms, case studies and references will be available for students. Taking into account the subject topics, students will be encouraged to participate actively during the course, but especially in the applications. Project team will be created in order to stimulate teamwork activities and role / responsibilities assumption.</p>

In order to develop communication / oral presentation skills, projects will be presented, assessment, respectively selfassessment and communication of constructive feedback will be stimulated, too.

By graduating the course students will be able to:

- adequately use of quality vocabulary,
- understand the quality management principles and translate them into specific requirements in accordance with ISO 9001:2015,
- select and combine quality engineering tools in order to improve organisations' performance,
- design, manage and assess processes and quality management systems,
- develop of a positive and responsible attitude towards quality and the client,
- document product conformity, i.e. European Conformity label CE,
- acquire the culture of continuous improvement in terms of efficient use of resources.

<i>Assessment method</i>	% of the final grade	Minimal requirements for award of credits
Written exam	20	50% of the subjects solved.
Project	30	Handing in the project and solving at least 50% of the chapters within.
Teamwork	25	50% of the active involvement in project and laboratory activities
Laboratory	25	Performing the lab sessions, handing in the obtained results and obtaining at least 50% of the points allocated for the laboratory.
Other	-	-

References

Compulsory:

Severin I., Voicu M. – Ingineria calității / Quality Engineering, Ed. Printech, 2003, 2005
 ISO Standards regarding quality / quality management systems and tools and connected: ISO 9000:2014, ISO 9001:2015, ISO 9004:2010, SR ISO 10002:2005, SR ISO 10006:2005, SR ISO 10007:2005, SR ISO/TR 10014:2005, SR ISO/TR 10017:2005, SR EN ISO/CEI 17025:2005, SR EN ISO/CEI 17050:2005, SR EN ISO 19011:2011 etc.

Optional:

www.iso.ch, www.isotc176, www.bsi.org.uk, www.asro.ro, www.renar.ro, www.efqm.org, www.cqi.uk, www.asq.org

<i>Prerequisites</i>	<i>Co-requisites</i>
<i>System and Project Management, Manufacturing Processes, Product Design & Development</i>	-
<i>Additional relevant information</i>	
The final grade is calculated by rounding the score accumulated by the student at the evaluated activities.	

Date: 23.08.2022

Professional degree, Surname, Name: Prof. Irina Severin