

## Product and Quality 2018/19 Description of selected product type

It should have approximately 7- 10 pages, short description and basic information relevant to topic. Source of information can be based on information sources from teacher. Presentation takes part at given date or later (according to changes in program). In case of delay in seminar paper preparation will points for presentation not given. Paper will be prepared in paper form and in electronic form. Papers or part of the content of seminar paper will be published at internet and build also study materials of exam.

chapter	Name of chapter	Tasks and questions related with the tasks
1.	Introduction and principle characteristics	Characterization of product and its producer, motives for choice of this product
2	Product attributes and analysis	<ul style="list-style-type: none"> <li>• Find approximately 20-30 different attributes, features, characteristics of this product</li> <li>• Characterize these attributes if they are objective (value does not depend on subject) or subjective (perception depends of subject), quantitative (with unlimited number of conditions – i.e. speed) or qualitative (with limited amount of alternative – i.e. number of airbags, ESP system yes or not), complex (attribute consists from more partial attributes) or simple (basic attributes building complex attribute and according there importance during product life (development – production – sale – consumption- waste management; very important- important -less important)</li> </ul>
3	Evaluation of product characteristics and analysis of characteristics	<ul style="list-style-type: none"> <li>• Choose 5-7 attributes which you consider as the most important for consumer perception and evaluation of products and for utility of product. Take care that this attributes should be on similar level of complexity and they should not be part of other complex attributes.</li> <li>• Create AHP structure for this attributes and if you can develop it on additional level (complex attribute build from simple attribute)</li> <li>• Use pairwise comparison to identify the role of every attributes for perception of product.</li> </ul>
4	Metrology and product measurement	<ul style="list-style-type: none"> <li>• Identify among attributes from task 2 the most important attributes to prepare production process and production of the product.</li> <li>• Identify the metrology units which will be used to characterize product through objective measurable attributes.</li> <li>• Is there any requirement for metrology coming from legal metrology and legislation? If yes which one a how it influence the market decisions.</li> </ul>
5	Product classification	<ul style="list-style-type: none"> <li>• Identify the position of your product in Taric system using <a href="http://ec.europa.eu/taxation_customs/dds2/taric/taric_consultation.jsp?Lang=en">http://ec.europa.eu/taxation_customs/dds2/taric/taric_consultation.jsp?Lang=en</a> or <a href="http://ec.europa.eu/eurostat/ramon/nomenclatures/index.cfm?TargetUrl=LST_NOM_DTL&amp;StrNom=CN_2016&amp;StrLanguageCode=EN&amp;IntPcKey=&amp;StrLayoutCode=HIERARCHIC">http://ec.europa.eu/eurostat/ramon/nomenclatures/index.cfm?TargetUrl=LST_NOM_DTL&amp;StrNom=CN_2016&amp;StrLanguageCode=EN&amp;IntPcKey=&amp;StrLayoutCode=HIERARCHIC</a></li> </ul>

		<ul style="list-style-type: none"> <li>Identify the position of your product in CPA classification <a href="http://ec.europa.eu/eurostat/ramon/nomenclatures/index.cfm?TargetUrl=LST_NOM_DTL&amp;StrNom=CPA_2008&amp;StrLanguageCode=EN&amp;IntPcKey=&amp;StrLayoutCode=HIERARCHIC">http://ec.europa.eu/eurostat/ramon/nomenclatures/index.cfm?TargetUrl=LST_NOM_DTL&amp;StrNom=CPA_2008&amp;StrLanguageCode=EN&amp;IntPcKey=&amp;StrLayoutCode=HIERARCHIC</a></li> </ul>
6	Product related standards	<ul style="list-style-type: none"> <li>Identify some of standards which can be used for your product using the <a href="http://www.iso.org/iso/home/store/catalogue_ics.htm">http://www.iso.org/iso/home/store/catalogue_ics.htm</a></li> <li>Are existing European standards in relevant field as well? Find if and how are international standards adapted in European standards structure using <a href="http://standards.cen.eu/dyn/www/f?p=CENWEB:105::RESET::::">http://standards.cen.eu/dyn/www/f?p=CENWEB:105::RESET::::</a></li> </ul>
7	Conformity and legislation requirements	<ul style="list-style-type: none"> <li>What are main legal requirements for you selected product type in European Union? Use for search of relevant information <a href="http://eur-lex.europa.eu/advanced-search-form.html?locale=en">http://eur-lex.europa.eu/advanced-search-form.html?locale=en</a></li> <li>Is your product belonging under New Approach system? Which directives of New Approach you should apply for your product type in your opinion and why? You can use webpage <a href="http://www.newapproach.org/">http://www.newapproach.org/</a></li> </ul>
8	Quality management system	<ul style="list-style-type: none"> <li>Find at least one company with certified quality management system and producing your type of products and shortly describe its approach to quality on the base of information offered in internet.</li> </ul>
9	Packaging	<ul style="list-style-type: none"> <li>Which packaging materials are used for your product?</li> <li>Which packaging material can be and/or are used for the product category you have chosen?</li> <li>Compare benefits and negatives of each material on the base of main product packaging functions.</li> <li>Evaluate packaging of your product by packaging functions and make suggestion for packaging improvement.</li> </ul>
10	Product relevant and labeling information	<ul style="list-style-type: none"> <li>Which information about product can you identify at packaging? Classify they according the character (obligatory information – voluntary information) and according their credibility (marketing information – objective proved information)</li> <li>Is product coding used on packaging? Which EAN code was used for selected product item? Try to identify relevant producer information from EAN code using webpage <a href="http://gepir.gs1.org/v32/xx/gtin.aspx?Lang=en-US">http://gepir.gs1.org/v32/xx/gtin.aspx?Lang=en-US</a></li> <li>Do you know some example of use of marketing information on packaging from competitors? Can you identify which and on? If yes which one a how it influence the market decisions.</li> </ul>
11	Product testing and prove of quality	<ul style="list-style-type: none"> <li>Which systems of evaluation, testing and conformity assessment can you use for this product type? Find some example of labeling, certification which can be/are used for your products.</li> <li>Find examples of used of such systems for own and/or competitive products of same product group?</li> <li>Where you can find results of tests of product available on the market, consumer testing and different form of independent evaluation of products?</li> </ul>

12	Intellectual property of product	<ul style="list-style-type: none"> <li>• What kind of intellectual property you can use for your product and what attributes, components and parts of product can be protected in different form of intellectual property?</li> <li>• Are there existing forms of protection in your product group? Show some example of use of industrial and intellectual property searching the <a href="https://register.epo.org/regviewer">https://register.epo.org/regviewer</a> <a href="https://www.tmdn.org/tmview/welcome">https://www.tmdn.org/tmview/welcome</a> <a href="https://www.tmdn.org/tmdsview-web/welcome">https://www.tmdn.org/tmdsview-web/welcome</a></li> </ul>
13	Environmental aspects of product	<ul style="list-style-type: none"> <li>• What you can consider as main environmental attributes and what are the most important negative impact of your selected product type on environmental?</li> <li>• Are there some models existing to support environmental friendly alternative of your products?</li> <li>• Can your product obtain national ecolabel in your country and/or EU – Ecolabel? Search in <a href="http://ec.europa.eu/environment/ecolabel/">http://ec.europa.eu/environment/ecolabel/</a> .</li> </ul>

**Criteria of Seminar Paper Evaluation:**

• <b>Information value</b> - used sources of information and quantity of obtained information	13
• <b>Analytic part</b> , use of instrument and tools, analysis of situation	13
• <b>Strategic aspect</b> , proposals, results, personal value added	9
• <b>Formal outlook</b> and form of presentation, principles of printing, citation, language quality	5
Summe	40

**Criteria of Seminar Paper Evaluation:**

- Semester paper presentation takes part during last two week of semester on seminars.
- Presentation aim is elaborate content of paper and present in interesting form. Presentation should inform about preparation and content of paper, main findings by situation analysis and proposal for improvement.
- Time for presentation is among 15-20 minutes according the number of presented papers and time available for presentation.
- For presentation will be basic equipment available (notebook , projector).

**Evaluation criteria of presentation**

• <b>Formal form of presentation-</b> quality of prepared materials	6
• <b>Internal quality of presentation</b> -ability point out most important and most interesting paper findings and results, ability react on question and comments	7
• <b>Personality</b> – individual appearance of person- presentation, behaviour, individuality, personality	7