

COURSE SYLLABUS

University	UNIVERSITY OF ORADEA
Faculty	FACULTY OF ENERGY ENGINEERING AND INDUSTRIAL MANAGEMENT
Study program*	QUALITY MANAGEMENT AND CONSUMER PROTECTION IN THE TEXTILE AND LEATHER FIELD

I. Course Name: Quality Assurance and Comfort of Textile and Leather Products

II. Course Details

No of hours/week						
Code	Semester	Credits	Lecture	Seminar	Laboratory	Project
ITEMI 0914	2	5	28	-	28	-

III. Course coordinator (title, name, surname, e-mail): Lecturer, Cristina, Secan, cris_secan@yahoo.com

IV. Course objectives

- Familiarizing students with basic concepts and notions in the field of textiles and leather.
- Developing skills for understanding technological processes and related phenomena.
- Defining and presenting basic notions regarding quality assurance in spinning-weaving, knitting, and garment enterprises.
- Presenting theoretical and practical methods used for controlling textile products.
- Presenting norms and working methods related to quality assurance of textile products.
- Applying theoretical concepts through practical control applications on products and processes.

VI. Course content:	No. of hours
1. Concepts regarding the definition of quality	1
1.1. The concept of quality	
1.2. Standards, norms, and regulations related to quality	
1.3. Quality characteristics specific to products	
1.4. Quality indicators	
2. Quality system	1
2.1. The concept of a quality system	
2.2. Selection of the quality system structure	
2.3. Elements of the quality system	
2.4. Stages of implementing a quality system	
3. Methods for controlling and measuring the quality of clothing products	2
3.1. Data analysis	
3.2. Monitoring and measuring products	
3.3. General methods of measuring quality	
3.4. Specific methods for quality control	
4. Quality of products and processes in the knitting sector	2
4.1. Quality characteristics and classification criteria	
4.2. Methods of evaluating quality	
4.3. Quality analysis of knitted products	
5. Analysis and control of non-quality	2
5.1. Defect classification criteria	
5.2. Evaluation of non-quality in knitted products	
6. Influence factors on the quality of knitted products	2
6.1. Influence of raw material	
6.2. Influence of the knitting machine	
6.3. Influence of servicing personnel	
7. Types of control	1
7.1. Total control and sampling control	
7.2. Characterization of statistical populations	

7.3. Estimation of statistical parameters	
8. Statistical process control	
8.1. Application of statistical control	
8.2. Preliminary phase	2
8.3. Control charts	
8.4. Actual statistical control	
9. Contributions regarding the application of control methods in the manufacturing processes of knitted products	
10. Defining the functions of clothing	1
11. Concepts related to heat and mass transfer	2
12. Comfort parameters and calculation methods	2
13. Global comfort index	2
14. Hygiene conditions specific to materials intended for leather products and substitutes	2
15. Comfort state. Footwear microclimate	1
16. Ergonomic and hygienic properties of footwear	1
17. Qualitative analysis of footwear from a health-protection perspective	1
18. Harmful effects of leather substitutes on the human body	1

V.2. Laboratory/Seminar/Project:	No. of Hours
1. Study of basic standards in the textile garment industry, adopted accordingly to EN and ISO standards.	2
2. Evolution and classification of ISO standards regarding quality.	2
3. Quality of raw materials.	2
4. Quality control on clothing manufacturing lines.	2
5. Quality control in knitting enterprises.	2
6. Identification of defects, causes, prevention, and remediation.	2
7. Technical quality control and acceptance criteria.	2
8. Morphological structure analysis.	4
9. Determining comfort parameters for clothing ensembles.	3
10. Determining comfort parameters for footwear structures.	3
11. Rheological characterization of leather substitutes.	4

VI. Bibliography

- Oana I., *Controlul și auditul calității*, Edit. Univ. din Oradea, 2008.
- Preda C-tin, *Metode și aparate pentru controlul calității materialelor textile destinate confecționării produselor de îmbrăcăminte*, Edit. BIT, Iași, 1996.
- Ionescu Luca C., *Legislația și auditarea sistemelor calității*, Editura Performantica Iași, 2007.
- Moisescu E., *Controlul tehnic de calitate*, Editura “Gh. Asachi” Iași, 2000.
- Florea A., *Controlul calității*, Editura “Gh. Asachi” Iași, 2002.
- Oana I., Oana D., *Analiza controlului final al confecțiilor textile*, Annals of the Oradea University Fascicle of Management and Technological Engineering 2006, cod CNCSIS 564.
- Secan C., *Calitatea și funcționalitatea produselor textile*, note curs 2023.
- Baciu C., *Anatomia funcțională și biomecanica aparatului locomotor*, Editura Sport – Turism, București, 1977.
- Ionescu C., *Asigurarea și controlul calității încălțămintei pe fluxul de fabricație*, Editura Universității din Oradea, 2002.
- Mitu Stan, *Confortul și funcțiile produselor vestimentare*, Gh. Asachi Publishing House, Iași, 2000.
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- Secan C., *Studiu privind influența structurii înlocuitorilor de piele asupra permeabilității la vapori de apă*, Textilele Viitorului, Simpozionul Anual al Specialiștilor din Industria de Tricotaje-Confecții, Facultatea de Textile-Pielărie, nov. 2008.
- Secan C., Mitu S., *Cercetări experimentale privind stabilirea limitelor parametrilor de confort*

pentru produse din piele și înlocuitori, Textilele Viitorului, Simpozionul Anual al Specialiștilor din Industria de Tricotaje-Confecții, Facultatea de Textile-Pielărie, nov. 2008

14. Porav V., **Secan C.**, *An analysis the influence of the textile material doubling process by thermofusing on vapor permeability*, Annals of the Oradea University, "Fascicle of Textile - Leatherwork", TheInternational scientific conference, "Innovative solutions for sustainable development of textiles industry", vol XVII, Ed.Universității din Oradea, 2016.,ISSN 1843-813X,pg.107, **articol indexat în baza de dateULRICH'S**.

15. Porav V., **Secan C.**, *The influence of doubling of textile materials through thermofusing on their hydrophilicity*, Annals of the Oradea University, "Fascicle of Textile - Leatherwork", TheInternational scientific conference, "Innovative solutions for sustainable development of textiles industry", vol XVII, Ed.Universității din Oradea, 2016.,ISSN 1843-813X,pg.111, **articol indexat în baza de dateULRICH'S**.

16. **Secan C.**, *Comportarea din punct de vedere sanogenetic a înlocuitorilor la confecționarea încălțămintei*, referat doctorat.

17. **Secan C.**, *Contribuții la optimizarea utilizării înlocuitorilor din piele în procesul de fabricare a încălțămintei*, teza doctorat.

18. **Secan C.**, *ANALIZA PARAMETRILOR FIZIOLOGICI ȘI DE CONFORT*, Editura Universității din Oradea, ISBN 978-606-10-2237-3, anul 2023.

19. **Secan C.**, Cuc Sunhilde, *ASPECTS REGARDING THE PHYSIOLOGICAL AND COMFORT PARAMETERS IN SHOES MADE OF LEATHER SUBSTITUTES*, ICAMS, 2022,Proceedings of THE 9 th INTERNATIONAL CONFERENCE ON ADVANCED MATERIALS AND SYSTEMS, ISSN 2068-0783, pp. 461-467, Bucuresti, 26-28 oct.,2022, www.icams.ro

VI. Grading criteria

Activities	Assesment	% of final grade
Exam	Written exam: Requirements in order to get the minimum grade for passing the exam: Lectures: written exam with 10 questions (1 hour), possibly online. Laboratory: tests (5%), report + presentation (20%), participation (5%). Requirements for the maximum grade	10 subjects, of which 5 are made for the minimum grade, and 10 for the maximum grade.
Seminar/Laboratory/Project	Exam – written examination (70%). Laboratory activities (30%)	Project presentation

VII. Learning outcomes:

- Understanding modern quality management concepts.
- Using digital and communication tools.
- Applying software for quality control and organizational communication.
- Developing sustainable strategies in industrial contexts.

Course coordinator,

Lecturer Eng. PhD Cristina Secan – cris_secan@yahoo.com