

COURSE SYLLABUS

University	UNIVERSITY OF ORADEA
Faculty	FACULTY OF ENERGY ENGINEERING AND INDUSTRIAL MANAGEMENT
Study program*	INDUSTRIAL ECONOMICS ENGINEERING

I. Course Name: TECHNOLOGIES AND EQUIPMENT IN KNITTING

II. Course Details

Code	Semester	No of hours/week				
		Credits	Lecture	Seminar	Laboratory	Project
	6	5	2	-	1	2

III. Course coordinator (title, name, surname, e-mail):

IV. Course objectives

The course **TECHNOLOGIES AND EQUIPMENT IN KNITTING** aims to familiarize students with the basic concepts of structural and technological design of weft knits and technologies/equipment used in knitting.

V. Course content

V.1. Lecture (chapters/subchapters and paragraphs)	No. of hours
1. Technological processes for knitted products	2
2. Yarn preparation for knitting	2
3. Basics of knitting process	2
4. Actuation of loop-forming elements	2
5. Selection of loop-forming elements	2
6. Knitting machine	8
7. Technological parameters	4
8. Technological calculations	4
9. Quality assurance in knitting	2
V.2. Laboratory	
1. Safety in knitting lab. General aspects of knits and raw materials	1
2. Technological processes for knitted products	1
3. Yarn preparation	1
4. Knitting methods and mechanisms	3
5. Machine description and technological parameters	5
6. Technological calculations	2
7. Quality assurance	1
V.3. Project:	
Chapter 1: Assortment and technology Chapter 2: Machine selection Chapter 3: Knit structure Chapter 4: Technological calculations Chapter 5: Technological design of knitting operation	28

VI. Bibliography

1. BUDULAN R. –Bazele tehnologiei tricoturilor, Editura BIT, 1996;
2. Dan, D., Tehnologii de tricotare pe mașini rectilinii, Editura Performantica, Iași, 2008
3. Dan, D., Procese și mașini de tricotate, Editura Performantica, Iași, 2005
4. Preda, S., Structura și tehnologia tricoturilor, Rotaprint I.P.Iași, 1981
5. MATEESCU M.–Tehnologia tricotajelor, Editura didactică și pedagogică, București, 1970;
6. MACOVEI L., ȘERBAN V.–Tehnologii și utilaje în tricotate , Editura „Gh. Asachi”, Iași, 2002;
7. ȘERBAN V., MACOVEI L.– Tehnologii de tricotare pe mașini circulare, Editura „Gh. Asachi”, Iași, 2002;
8. Tripa, S., Indrie, L. – Structura tricoturilor simple și reprezentarea acestora în CORELDRAW, Editura Universității Oradea, 2008
9. Tripa, S – Analiza eficienței economice în tricotate, Editura Universității Oradea, 2013

10. Tripa Simona – Tehnologii si utilaje in tricotate – curs incarcat pe platforma e-learning, 2025
11. Erzebet, A. – Proiectare în tricotate, Ed. Mirton, Timișoara, 2002
12. Mateescu, M., Budulan, R., Preda, S. Bazele teoriei tricotării, Îndrumar de laborator, Rotaprint I. P. Iași, 1975
13. Tripa, S. – Structura tricotelor simple: colecție de lucrări practice, Editura Universității Oradea, 2009
14. Tripa, S – Analiza eficienței economice în tricotate, Editura Universității Oradea, 2013
15. Tripa, Simona - “Structuri textile - tricoteuri : îndrumar de proiectare”, Editura Universității din Oradea, ISBN 978-606-10-1959-5, 2018, pp.102
16. Erzebet, A. – Proiectare în tricotate, Ed. Mirton, Timișoara, 2002
17. Hagi, E. - Structura și proiectarea tricotelor, Ed. Rotaprint, Iași, 1980
18. Tripa, Simona - “Structuri textile - tricoteuri : îndrumar de proiectare”, Editura Universității din Oradea, ISBN 978-606-10-1959-5, 2018, pp.102
19. Tripa Simona – Tehnologii si masini in tricotate, note de curs – suport electronic, 2025

VII. Grading criteria

Activities	Assesment	% of final grade
Exam	Written exam: The evaluation of the students will be done by taking a written exam that will include 10 subjects, for the solution of which they have 1 hour.	60%
Laboratory	The evaluation of the seminar activity is made based on the way of active participation in the debates (10%).	10%
Project	Each student will receive an individual project topic. The design stages will be completed successively in the order presented in the project contents, under the guidance of the profesor, and at the end of the semester each student will submit and present defend the completed project.	30%

VIII. Learning outcomes:

By the end of this course, students should be able to:

- explains theoretical results, experimental results, and technical documentation associated with products, phenomena, and processes in the knitting industry.
- operates with manufacturing processes and equipment in the knitting industry;
- prepares technical documentation;
- interprets technical conditions;
- verifies compliance between prescribed characteristics and functional role of parts/products.

Course coordinator,
Assoc. Prof. Phd. Simona Tripa