

## **REGULATION FOR INDUSTRIAL TRAINING (INTERNSHIP) COURSE OF BACHELOR DEGREE OF MUST**

### **One. General grounds**

1. The companies and industries that are hosting the internship for students shall conclude a contract with the respective School of the MUST. Under the agreement of the contract, when students are doing their internship at the companies and industries, they shall adhere to the labor laws and occupational safety and health regulations that are in force in the company and industry.
2. During the internship, students are required to work at the places assigned by the supervisor, as well as to participate actively in the activities and events organized at the companies and industries, and they are required of writing daily journal taking notes of things that will be assistance of completing their research work, thesis or course work, and internship final report on the day-to-day basis. The internship supervising professor shall check the daily journal on regular basis.
3. In the case of student failing to do internship or fully complete the internship, he/she will not submit the internship final report and earn respective credits.

### **Two. Objectives of internship**

The industrial training(intership) is a form of learning activity that is designed to prepare professionals with high knowledge and skills, and to reinforce the application of theoretical knowledge gained through professional and qualification courses.

### **Three. Internship credit hour performance**

1. In bachelor degree program, internship is three to six credit hours course. The students who are taking bachelor degree program are required to take following six internship courses that relate to their field of study:
  - General professional internship I; (1 credit hour in-class course that continues for one semester)
  - General professional internship II; (1 credit hour in-class course that continues for one semester)
  - Introductory internship (1 credit hour course that takes place in in-class and industrial setting and it lasts for 15 days)

- Internship for primary processing technology (1 credit hour internship course that takes place in industrial setting and it lasts for 15-30 days)
  - Industrial internship I (1 credit hour internship course that takes place in industrial setting and it lasts for 15-30 days)
  - Industrial internship II (1 credit hour internship course that takes place in industrial setting and it lasts for 15-30 days)
2. The nature of the credit hour system in Mongolia is that credit hour allocated for in-class courses is higher than that of internship courses. The reason is that in-class courses allow students to have more direct contact and communication with their professors which allows them to acquire new knowledge with the assistance and guidance of professors. Regarding the industrial setting internship, students will have less contact and communication with the professors and instead have more independent learning opportunities. (Table 1).

Table 1. The equation of credit hours earned in-class and internship courses to academic hours

Credit	In-class course learning hour	Internship course learning hour
1 cr	48 hour	144 hour
2 cr	96 hour	288 hour
3 cr	144 hour	432 hour

3. As a result of taking internship courses, students will acquire theoretical knowledge that is worth of 3 credits
4. Students are required to pay tuition fee for 1 credit which will allow him or her to start their internship, which will be approved by the Order of the School Director.
5. The student earns 1 credit (48 hours) for completing internships and remaining 2 credit hours (96 hours) will be earned while completing paid internship on the basis of triple contract.
6. Triple contract will be jointly made by the industry directors, internship supervising professor, and intern student, and the contract will be concluded based on the working conditions, occupational safety, safety, internship duration, labor laws and internal rules of procedure of the industry and company.

Table 2. Breakdown of credit hour of bachelor degree program

Credit hour	In-class study hours	Internship study hours	Remarks
1	48	144 hour	Earning 1 credit as specified in student learning curriculum (Pay only for 1 credit)
2	96	288 hour	Complete paid internship based on triple contract (hourly wage will be calculated based on the student performance)
Total/3credits/	240	432 hour	The school allows student to complete their internship for 15 business days and the student can continue to work if they wish.

#### **Four. Taking daily journals and internship final report template**

1. Prior to the start of the internship, the school and professor supervising the internship shall give orientation to the student on the regulation of the internship, assignment, occupational safety, and safety guidelines.
2. The supervising professor shall develop the terms of reference and detailed plan for the internship. The student will keep a notebook to take daily notes of the internship.
3. On the first day of the internship, the supervising professor introduces each student to the management team of the company and industry where student is interning and hand over the internship related materials to the supervisor at the industry or company.
4. The supervising professor will meet with interning students on daily basis and give feedback on the process of internship.
5. Students are required to take brief notes of his or her daily activities, either in narrative form, graphic, or scheme on daily basis, as well as write down their innovative and creative ideas that are to increase productivity or his or her impressions on experience of working in the field in their journals.
6. Students are expected to take note of the amount of his or her daily activities, and technical specifications as detailed as possible.
7. Students are expected to include a systematic description of the work performed and skills developed during the internship in his or her internship final report illustrating these in schematics, tables, graphics, and drawings. The internship final report may include graphics, drawings, or schemes, and it may also contain annexes.

8. The student should complete the report and have the report reviewed by the supervisor at the industry or factory prior to finishing the internship and have the supervisor write a review note about the internship in their daily journal.
9. In the case of student failing to record daily journal or lost the journal or having insatisfactory evaluation of their daily journal, the student shall be considered failing the completion of the internship course.
10. The student's daily journal along with his or her internship final report will be kept in the departments of the respective branch schools .

#### **Five. Requirements and grading for internship final report**

1. The Internship final report is a form of creative work of future technology engineers. For this reason, every student will be required to write the report independently.
2. The report shall include a scheme of technological processes /scheme/ and scheme of some special features equipment and machinery, kynematic scheme, and calculations, and these shall be clearly described in technical and written formats.
3. Including graphs and pictures, the report should be maximum of 20-30 pages and it may also have 3-6 pages of annex.
4. If the student has noticed of any inaccurate or malfunctions of technological processes at the insdstry, he or she should write a conclusion about it.
5. After the Internship final report is approved by the school and industry supervisors, it shall be officially defended in the official committee that consists of professors.
6. Students defend their internship final reports with the decision of the committee and it shall be graded as specified in Table 3.

Tablet 3. Grading for internship final report

Percentile grade	Letter grade	Grade point average
96-100	A	4.0
91-95	A-	3.7
88-90	B+	3.4
84-87	B	3.0
81-83	B-	2.7
78-80	C+	2.4
74-77	C	2.0
71-73	C-	1.7
68-70	D+	1.3
64-67	D	1.0
60-63	D-	0.7
30-59	F	0

**MUST, School of Industrial Technology**  
**APPOINTMENT**

\_\_\_\_\_ branch school \_\_\_\_\_ programm student  
\_\_\_\_\_ last name \_\_\_\_\_ first name  
\_\_\_\_\_  
/ name of industry or company/

hereby appointed to do his or her internship at the company or industry stated above  
starting from \_\_\_\_\_ until \_\_\_\_\_ for duration of \_\_\_\_\_ days.

..... Director of the School \_\_\_\_\_  
..... Head of the Department \_\_\_\_\_

**Confirmation**

Intern student \_\_\_\_\_ last name \_\_\_\_\_ first name started his or her  
internship on ..... year. . . . month . . . . . day at ..... (city)  
\_\_\_\_\_ (company name).  
Human Resource official .....

/seal/

Intern student ..... (last name and first name )completed his or her internship  
at. .... department /division or section/ of the company  
working on the position of ..... (name of the  
position) on ..... year . . . . . month . . . . . day.

Human Resource official .....

/seal/



## **SYLLABUS FOR THE INDUSTRIAL TRAINING (INTERNSHIP) II AT WOOL AND CASHMERE PROCESSING FACTORIES**

Code of the course: **G.TSD351 (1 credit)**

Grade: **IV**

Specialty: **Textile Technology**

Term of practice: **40 days**

### **Purpose and objectives of Industrial training (internship)**

Industrial training (internship) is one of forms of training that is designed for highly skilled professionals and is aimed at consolidation of theoretical knowledge gained through professional and qualification courses. In process of this industrial training, students will acquire knowledge and skills that will help them learn the technological processes of wool and cashmere knitwear production, management and organization of the enterprise, and acquiring knowledge of the methodology of working on machines and equipment, in monitoring, analyzing and evaluating of the raw materials and semi-processed products quality.

While completing their internship, students are expected to collect the required information that will help them to complete their diploma work or course works or thesis.

### ***Daily schedule of the internship***

<b>№</b>	<b>Daily schedule of internship</b>	<b>Days</b>
1	Studying of the managerial organization of the factory	2
2	Getting acquainted with working process at the Knitwear Designing Bureau and studying of the manufactured products' models	10
3	Studying of knitwear production technological process, functional structure and productivity of the machinery	15
4	With executive processing and quality control of products, studying of the products' quality classification	10
5	Collecting of material and information for internship final report	3
	Total number of days	40

## **General grounds**

The companies and industries that are hosting the internship for students shall conclude a contract with the respective School of the MUST. Under the agreement of the contract, when students are doing their internship at the companies and industries, they shall adhere to the labor laws and occupational safety and health regulations that are in force in the company and industry.

During the internship, students are required to work at the places assigned by the supervisor, as well as to participate actively in the activities and events organized at the companies and industries, and they are required of writing daily journal taking notes of things that will be assistance of completing their research work, thesis or course work, and internship final report on the day-to-day basis. The internship supervising professor shall check the daily journal on regular basis.

During the industrial training (internship) students are expected to learn about the wool and cashmere processing techniques and machinery thoroughly. Students shall also learn about the design, operating principles, and possible defects of equipment used on a specific production line, types and reasons of appearing products' defects and ways to eliminate all of them, thus he or she must acquire ability and proficiency in operating these equipment.

In process of working with master craftsmen and employees, students will become able to maintain technological regimes, use of machinery and processing of raw materials, principle of working shifts, will acquire methods of raw materials and semi-finished products' gradation. In the case of student failing to complete his or her internship or the student's internship final report fails to meet the requirements and he or she cannot defend the report and earn allocated credit for the course.

### ***General information about the factory***

1. Operational activity, organizational and functional structure of the Management, Quality, and other operations and department of the factory, and its work
2. Factory's perspectives and innovations
3. Location of the factory, storage sizes of raw materials and line of transporting raw materials to warehouses, processing of ready-made products.
4. Characteristics, features, types, and amount of the manufactured products
5. Total capacity of the factory, annual, quarterly and daily operation plan of the factory
6. Total number of employees of the factory and manpower consumption

### ***Models Designing Bureau***

1. Models and design of knitted products, their color trends
2. Drawing of draft pictures

3. Methodology for developing of the basic model design by using standard and dimensions of the physique.
4. Calculation and accounting of the cross and lengthwise density of the texture of various knitwear materials
5. Carrying out the calculation of knitting technology and uploading it into software program
6. Steps for introducing of new designs into production
7. Features of individually exported products, amount of after-knitted and ready made products
8. Specific features of knitwear product of the company compared to other factories' products

### ***Technology process of knitting***

1. Linear density, type, classification, quantity and quality standard of yarn that is used in knitwear production process
2. Special design and model features of the knitwear products, product types and quantity
3. Characteristics of quality for the knitwear products, methodology of performing laboratory analysis and its standard parameters
4. Types and classification of the knitting workshop equipment and machinery, their brands, technical specifications, productivity and factors affecting these
5. Classification and stages of knitting technological process, its features and advanced achievements

### ***Activities on final processing***

1. Executive technological lines and equipment aimed at execution of processing; brands, technical specifications, and productivity of machinery.
2. Types of chemicals used for washing and softening, its side effects, standard amount of usage.
3. Changes occurred before and after the production are completed.
4. Product damage, its causes, and ways to eliminate
5. Standards and methods for product quality assessment

### ***Special assignment***

To carry out this assignment, the students' creativity and independence will be important and this will help the students to independently solve any problems that are occurring in the industrial field. The assignment is expected to be completed within a short period of time. The assignment can be completed in the form of conducting research or surveys and writing a paper that addresses the

issues of improving product quality, new techniques and technology, conducting calculation for kinematic and technological calculations of some equipment.

***Requirements for industrial training (internship) final report***

The final report for industrial training (internship) is a form of creative work of a future engineer or technologist. The performance of completing the report shows how the student is applying his or her theoretical knowledge in practice.

For this reason, each student shall write the report individually. The report should not only include all the aspects of academic program but it also determines the skills and knowledge acquired during the internship. The report must contain a scheme of the technological processing line, description of some features of the special equipment and machinery, kinematics scheme and calculations. The report must illustrate all the knowledge and skills gained during the internship in written form with a clear technical language and vocabulary.

The report, together with graphic images, shall be written within 20-30 pages and it can also have 3-6 pages of annex. If the student observed any mistakes or lacks in the operation and process of technology at the factory, the student can write a reflection about it. The industrial training (internship) final report must be first approved by both supervisors at school and factory and then it will be defended at the faculty commission that consists of the faculty professors. With the decision of the Commission, the industrial training final report will be graded.

***Guideline on report writing***

Every student who are taking the Industrial training (internship) course shall keep a daily journaling. The students shall receive an orientation of internship that describes the process of internships, expected assignments, assignment completion, occupational health and safety regulations, and other required information. The university student handbook should contain the information on the assignments to complete, working plan, and schedule of theoretical lessons. On his or her daily journaling notebook, the student is take notes of his or her learning process. Once the student stars the internship at industrial setting, he or she needs to be registered in the managerial office of the factory. Prior to starting the industrial training (internship), the student is expected to immediately inform his or her internship supervisor about the address of the factory, planned tasks to complete, name and position of his industrial internship supervisor.

Daily journaling should include brief descriptions of the performed work which may include graphs, schemes, pictures, etc. It should be written in a clear way and the student may also take a note of new ideas and best practices for increasing productivity and efficiency. The daily journaling should

clearly describe the detailed daily work performed, the technical specification of the work performed and a brief technical report about the practice.

The industrial training report should contain schemes, tables, pictures, photos, etc. and it must describe the work performed and knowledge, skills, and experience gained as result of the internship. The report apart of graphs and illustrations, and written text may contain annex. The report must be based on observations made by the student during the period of internship on practices on operational processes of equipment and machinery and work organization, on strategic critical thinking, and, finally, on new and rational ideas, best practices that will affect the effectiveness and efficiency of the industrial production.

The report should be reviewed and critiqued by both supervisors at school and the industrial setting. The student is expected to include the following in his or her final report.

1. It is highly recommended for the student to share in his or her ideas about how to improve the efficiency of industrial practice in the future in his or her final report.
2. The industrial training final report will be defended in the meeting of the Commission that consists professors for the respective department. It is recommended that one of the members of The Commission to be a supervisor from the industrial setting.
3. The student does not earn the credit for the industrial training (internship) course in the case of failing to keep the daily journaling notebook or losing them, and in case of getting a unsatisfactory grades.
4. Both the daily journaling notebook and the industrial training (internship) final report will be further kept in the respective department.