

INDUSTRIAL ENGINEERING

INTERNSHIP REPORT

 

**Student Information**

Photograph

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| --- | --- | --- |
| Student Number |  | |
| Name, Surname |  | |
| Department -  (1st program for Double Major students) |  | |
| Last Registered Semester (4/5/6/7/8) |  | |
| Phone Number |  | |
| Message Address |  | |
| Internship Type | **Production** | **Management** |
| Official Start Date of the Internship |  | |
| Official End Date of the Internship |  | |
| Total Number of Internship Days Worked (excluding Saturday-Sundays and holidays) |  | |

Internship Enterprise Information

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| --- | --- |
| Company Title |  |
| Address |  |
| Phone No. |  |
| Fax No. |  |
| Web Address |  |
| Signature of the Internship Place Official and Business Stamp |  |

Internship Commission Review

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| --- | --- | --- | --- |
|  | Name, Surname | Signature | Date |
| President |  | | |
| Member |  | | |
| Member |  | | |

 

SUMMARY TABLE OF INTERNSHIP WORKING DAYS

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| Work Day No. | Date | Description/Name of the Work Performed |
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PRODUCTION INTERNSHIP

Using the scoring scale provided below, evaluate the qualifications of the company listed in the table by marking an X in the appropriate slot:

1. Very poor 2. Poor 3. Sufficient 4. Good 5. Very good

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| --- | --- | --- | --- | --- | --- |
| Attributes | 1 | 2 | 3 | 4 | 5 |
| 1. Contribution to improving my ability to set goals and objectives |  |  |  |  |  |
| 2. Contribution to the development of my time management and planning skills |  |  |  |  |  |
| 3. Contribution to enhancing my desire to learn |  |  |  |  |  |
| 4. Contribution to identifying my areas of weakness |  |  |  |  |  |
| 5. Contribution to increasing my willingness to take responsibility |  |  |  |  |  |
| 6. Contribution to improving my ability to express my views and knowledge verbally and in writing |  |  |  |  |  |
| 7. Contribution to improving my ability to work within a team |  |  |  |  |  |

1. Indicate the business title, address, date of establishment, capital structure, number of blue-collar and white-collar personnel, the sector it operates in, and its market position among competitors (status and market share compared to competitors). Draw/attach the organizational chart.
2. Evaluate the location of the enterprise in terms of proximity to raw materials, proximity to the market, transportation options, water and energy supply, availability of personnel, environmental impact, and climate suitability.
3. Introduce the products produced by the enterprise, including the latest annual capacity values and capacity utilization rates for each product, and provide information on the raw material supply methods. Provide information about the product distribution system and, if applicable, the after-sales service system.
4. Provide information on the following aspects related to the turning process carried out in the workshop. [Types and characteristics of the turning lathe, cutting tools used in the turning lathe, assemblies for connecting parts in the turning lathe, a process flow chart drawing of the entire process (including the processed part, lathe preparation, and operation steps) from lathe setup to the completion of the process for one turning operation performed with the lathe.]
5. Provide information on the following aspects related to the milling process carried out in the workshop. [Types and characteristics of the milling machine, cutting tools used in the milling machine, assemblies for connecting parts in the milling machine, a process flow chart drawing of the entire process (including the processed part, machine preparation, and operation steps) from machine setup to the completion of the process for one milling operation performed with the machine.]
6. Provide information on the following aspects related to the drilling process carried out in the workshop. [Types and characteristics of the drilling machine, cutting tools used in the drilling machine, assemblies for connecting parts in the drilling machine, a process flow chart drawing of the entire process (including the processed part, machine preparation, and operation steps) from machine setup to the completion of the process for one drilling operation performed with the machine.]
7. Provide information on the following aspects related to the welding process carried out in the workshop. (types of welding, equipment used, explanation of one welding application, including the operation steps of the entire process, with the help of a figure)
8. In addition to the above operations, please provide information about one of the other machining processes, such as casting, rolling, pressing, extrusion, coating, sandblasting, planing/shaping, grinding, broaching, etc., if applicable.
9. Provide a sketch showing the layout of the workbench, materials, and other machines in the workshop. Provide a recommendation on how to improve this layout.
10. Provide information about the quality control practices (control methods, locations, etc.) used in the workshop. Provide information about the measuring instruments used (caliper, micrometer, shore durometer, etc.).
11. Provide information about the maintenance and repair practices implemented in the workshop. Provide information about the equipment used for maintenance and repair.
12. Provide information about the material transport vehicles used in the workshop.
13. Create a material flow diagram for a main part that constitutes one of the basic products produced in the enterprise, including the total distance covered by the part during its manufacturing process (in meters). Ensure the diagram covers all production stages and provide suggestions for improving the efficiency of the material flow. Display the entire process (storage, processing, quality control, etc.) from the supply of this part as raw material to its delivery to the customer in a flow chart. Provide a recommendation to improve the performance of this process.
14. Explain a process you observed on a machine of your choice, including a figure, drawing, and other relevant information about the workpiece, how it is connected to the workbench, the tools used, the processing technology, and the parameters involved.
15. Provide information about the production technology (part processing, assembly operations, material handling, storage, packaging, intermediate and final inspections etc.) used in the enterprise. Discuss alternative technologies and their applicability within the enterprise, comparing them with the current technology in use.
16. Select three business activities (such as Production, Purchasing, Sales, Accounting, Human Resources, IT, R&D, etc.) and indicate their development over the last three periods (e.g., year, month, week) using three sample productivity indicators for each.
17. Conduct a method study to simplify the work at a workstation of your choice. Calculate the hourly production capacity by determining the standard time of an operation using the stopwatch method.
18. Examine a workstation from an ergonomic perspective. Develop a new design to address the existing ergonomic issues. Explain this using pictures and diagrams.
19. Provide information about occupational safety (occupational safety practices in use, safety measures taken, methods, documentation, training, etc.). Provide information about the equipment used. Develop a preventive measure for an activity area of your choice and explain it. If available, specify the general occupational accident statistics of the enterprise and explain the distribution of these data.
20. Provide information about the documents used in the workshop (work order, fault report form, quality control form, etc.). Provide information about the information-document flow system of the enterprise. Indicate the types of computer programs and software packages used for specific tasks. Draw a flowchart for a process of your choice.
21. Briefly explain with examples how statistical methods can be applied in the enterprise.
22. Explain in detail any works that have been assigned to you in the enterprise, independent of the internship-related tasks.

MANAGEMENT INTERNSHIP

Using the scoring scale provided below, evaluate the qualifications of the company listed in the table by marking an X in the appropriate slot:

1. Very poor 2. Poor 3. Sufficient 4. Good 5. Very good

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| --- | --- | --- | --- | --- | --- |
| Attributes | 1 | 2 | 3 | 4 | 5 |
| 1. Contribution to improving my ability to set goals and objectives |  |  |  |  |  |
| 2. Contribution to the development of my time management and planning skills |  |  |  |  |  |
| 3. Contribution to enhancing my desire to learn |  |  |  |  |  |
| 4. Contribution to identifying my areas of weakness |  |  |  |  |  |
| 5. Contribution to increasing my willingness to take responsibility |  |  |  |  |  |
| 6. Contribution to improving my ability to express my views and knowledge verbally and in writing |  |  |  |  |  |
| 7. Contribution to improving my ability to work within a team |  |  |  |  |  |

1. Indicate the business title, address, date of establishment, capital structure, number of personnel, the sector it operates in, and its market position among competitors (status and market share compared to competitors).
2. Draw/add the organization chart of the business. Evaluate the basis on which segmentation is conducted (functional, customer-based, geographic-based, product-based, etc.), the management structure of the enterprise (autocratic, democratic, etc.), and specify its problems and well-functioning aspects.
3. Evaluate the place of establishment of the business, if any, and its branches in terms of proximity to resources (financial centers, etc.) and customers.
4. Describe the services produced by the business (types of services, target audience, cooperating organizations, etc.).
5. Create a material flow diagram for a main part that constitutes one of the basic products produced in the enterprise, including the total distance covered by the part during its manufacturing process (in meters). Ensure the diagram covers all production stages and provide suggestions for improving the efficiency of the material flow.
6. Provide information about the products produced by the business, including annual capacity values and capacity utilization rates for each product, and methods of raw material supply.
7. Provide information and examples on how the annual production plan and the monthly or shorter production schedules are created in the enterprise and how the workbench loads are allocated.
8. Provide information about the quality control processes in the enterprise. At what stages of the production process are the inspections carried out? Show on a diagram.
9. Summarize the maintenance-repair activities in the facility. Compile the fault statistics for a machine of your choice over the last two years.
10. Conduct a modeling exercise (linear programming, dynamic programming, CPM, simulation, etc.) for a business problem of your choice within the scope of operations research and solve this model.
11. Conduct a job evaluation study for five tasks of your choice. For these tasks, perform a remuneration assessment according to a remuneration system of your choice. Provide information about the incentive-based compensation systems (premiums, piece rates etc.) used in the enterprise.
12. Create a flowchart for a process of your choice and provide suggestions for improving it. Identify three performance metrics that can be used to assess improvement.
13. Provide information about the IT activities within the enterprise and the information-document flow system. Introduce the package programs used and discuss their places of use and functions.
14. Provide information about the product costing system of the enterprise. Create budget, profit-loss, and balance sheets for short periods. (The numbers used do not need to be real values.)
15. If an investment is planned for the enterprise, indicate the factors considered in its feasibility and the engineering economy techniques applied. Additionally, perform one engineering economy application on your own.
16. Examine the workplace design from an ergonomic perspective. Develop a new design to address the existing ergonomic issues. Explain this using pictures and diagrams.
17. Briefly explain with examples how statistical methods can be applied in the enterprise.
18. Provide information about the customer relations and advertising efforts of the enterprise.
19. Provide information about the criteria and evaluation systems used in the enterprise to assess the performance of individuals, departments, and the company, as well as motivational measures to enhance individual performance.
20. Provide information about the business's long-term plans (vision, mission, strategies, etc.) and illustrate the relationships between them in a figure.
21. Specify the job description, authority, and responsibilities of the human resources department. Provide information about management and/or operational projects that have been completed or are planned in the business.
22. Explain in detail any works that have been assigned to you in the enterprise, independent of the internship-related tasks.

 

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| DATE |  | WORKING DAYS |  |
| NAME/DESCRIPTION OF THE WORK PERFORMED |  | | |

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| Name, Surname/Title of Internship Place Official | Signature and Stamp |
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