

Production and Services Management - opis przedmiotu

Informacje ogólne	
Nazwa przedmiotu	Production and Services Management
Kod przedmiotu	06.9-WM-ER-ZiIP-29_18
Wydział	Wydział Nauk Inżynieryjno-Technicznych
Kierunek	WM - oferta ERASMUS
Profil	-
Rodzaj studiów	Program Erasmus
Semestr rozpoczęcia	semestr zimowy 2023/2024

Informacje o przedmiocie	
Semestr	1
Liczba punktów ECTS do zdobycia	5
Typ przedmiotu	obowiązkowy
Język nauczania	angielski
Sylabus opracował	<ul style="list-style-type: none">prof. dr hab. Taras Nahirnyydr inż. Tomasz Belica

Formy zajęć					
Forma zajęć	Liczba godzin w semestrze (stacjonarne)	Liczba godzin w tygodniu (stacjonarne)	Liczba godzin w semestrze (niestacjonarne)	Liczba godzin w tygodniu (niestacjonarne)	Forma zaliczenia
Wykład	30	2	-	-	Egzamin
Ćwiczenia	30	2	-	-	Zaliczenie na ocenę

Cel przedmiotu

Transfer and consolidation of basic knowledge and acquisition by students of skills and competences in the field of production and service management, which will be used in the further education process and useful in future professional work.

Wymagania wstępne

Management and economics of the enterprise.

Zakres tematyczny

Lecture

- L1. Preliminary issue. Strategy of manufacturing and service activities. SWOT analysis. Operations management and financial management.
- L2. Product: Integrate approach to product development; Design processes and systems; Diversity management: Pareto-ABC analysis.
- L3. Value analysis. Quality. Quality costs, TQM, FMEA
- L4. Product and system reliability. The life cycle of a product or service
- L5. Plant location. Specific Locational Factors. CPM for objects location. Balancing the production line.
- L6. Maintenance of industrial facilities and equipment.
- L7. Production flow design. Product families.
- L8. Fundamentals of work study.
- L9. Statistical control of the production process. Quality control chart.
- L10. Forecasting. Basic time series techniques. Standard linear regression model.
- L11. Calendar planning. Selected weighing methods.
- L12. Inventory Theory and Systems. MRP, Material inventory reduction.
- L13. Production planning and control systems. JiT, Kanban, OPT, bottlenecks.
- L14. Project management. Shortening the project cycle.
- L15. Balance line technique. Final remarks.

Projekt

P1 - P2. Preliminary issues. SWOT analysis in operational management,

P3 - P4. Pareto-ABC analysis,

P5 - P6. Product FMEA,

P7 - P9. Proces FMEA,

P10 - P11. Balancing line production,

P12 - P14. Materials management for fluctuating demand for finished products.

P15. Proofreading and approval of projects.

Metody kształcenia

Conventional lecture.

Classes: problem tasks, group and individual work.

Efekty uczenia się i metody weryfikacji osiągnięcia efektów uczenia się

Opis efektu	Symbole efektów	Metody weryfikacji	Forma zajęć
The student has a structured, theoretically based general knowledge covering key issues of production and service management		<ul style="list-style-type: none">egzamin - ustny, opisowy, testowy i inneprojekt	<ul style="list-style-type: none">WykładĆwiczenia
The student has basic knowledge about the life cycle of equipment and technical systems		<ul style="list-style-type: none">egzamin - ustny, opisowy, testowy i inneprojekt	<ul style="list-style-type: none">WykładĆwiczenia
The student has basic knowledge of management, including quality management		<ul style="list-style-type: none">egzamin - ustny, opisowy, testowy i inneprojekt	<ul style="list-style-type: none">WykładĆwiczenia
Can obtain information from literature and other properly selected sources; integrate the information obtained, interpret it, and draw conclusions regarding production and service management		<ul style="list-style-type: none">projekt	<ul style="list-style-type: none">Ćwiczenia
Able to think and act in an entrepreneurial way		<ul style="list-style-type: none">projekt	<ul style="list-style-type: none">Ćwiczenia
Can assess the usefulness of routine methods characteristic of production and service management to solve a simple engineering task		<ul style="list-style-type: none">projekt	<ul style="list-style-type: none">Ćwiczenia

Warunki zaliczenia

Lecture

Grade based on a written exam that verifies the knowledge of basic issues

Class

The grade is determined on the basis of the evaluating component of skills related to the implementation of project tasks.

Final grade: arithmetic mean of the above grades.

Literatura podstawowa

1. Kumar, S. Anil, and N. Suresh. *Production and operations management*. New Age International, 2006.
2. Chary, S. N. *Production and operations management*. McGraw Hill Education, 2017.
3. Khanna, R. B. *Production and operations management*. PHI Learning Pvt. Ltd., 2015.

Literatura uzupełniająca

Uwagi

Zmodyfikowane przez dr inż. Tomasz Belica (ostatnia modyfikacja: 06-02-2024 19:08)