Iame of the module/subject     Code       Organization of Production Preparation     1011101351011120185       ield of study     Profile of study (general academic, practical)     Year /Semester       Engineering Management - Full-time studies - Clective path/specialty     Profile of study (general academic, practical)     Year /Semester       Elective path/specialty     -     Polish     Course (compulsory, elective elective       Eventure:     15     Classes:     15     Laboratory:       Ao. of hours     -     Project/seminars:     -     3       e.ecture:     15     Classes:     15     Laboratory:     -     No. of credits       tatus of the course in the study program (Basic, major, other)     (university-wide, from another field)     university-wide       echnical sciences     3     100%       Technical sciences     3     100%       rendii: aleksandra.kawecka-endler email: aleksandra.kawecka-endler@put.poznan.pl     drinž. Roma Marczewska-Kuzma		
Engineering Management - Full-time studies -       (general academic, practical) general academic       3 / 5         Elective path/specialty       Subject offered in: Polish       Course (compulsory, elective elective         2ycle of study:       Form of study (full-time, part-time)       Enclasses:       15         ko. of hours       Form of study (full-time, part-time)       No. of credits         accture:       15       Classes:       15         tatus of the course in the study program (Basic, major, other)       (university-wide, from another field)       No. of credits         ecture:       15       Classes:       15       Laboratory:       -         etatus of the course in the study program (Basic, major, other)       (university-wide, from another field)       ECTS distribution (number and %)         etatus of the course and fields of science and art       ECTS distribution (number and %)       3       100%         echnical sciences       3       100%       3       100%         Responsible for subject / lecturer:       dr inż. Roma Marczewska-Kuźma email: roma.marczewska-kuźma @put.poznan.pl       dr inż. Roma Marczewska-kuźma @put.poznan.pl		
Lective path/specialty       Subject offered in: Polish       Course (compulsory, elective elective         bycle of study:       Form of study (full-time,part-time)       Elective         First-cycle studies       full-time         ko. of hours       full-time         Lecture:       15       Classes:       15         Lecture:       15       Classes:       15       Laboratory:       -         Bitatus of the course in the study program (Basic, major, other)       (university-wide, from another field)       No. of credits         Course (compulsory, elective       0       ECTS       3         Education areas and fields of science and art       ECTS distribution (number and %)       3         echnical sciences       3       100%       3         Technical sciences       3       100%       3         prof. dr hab. inż. Aleksandra Kawecka-Endler       dr inż. Roma Marczewska-Kuźma       email: roma.marczewska-kuźma @put.poznan.pl		
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email: aleksandra.kawecka-endler@put.poznan.pl email: roma.marczewska-kuzma@put.poznan.pl		
tel. 61- 6653370 tel. 61-6653364 Wydział Inżynierii Zarządzania Wydział Inżynierii Zarządzania		
ul. Strzelecka 11 60-965 Poznań ul. Strzelecka 11 60-965 Poznań		
Prerequisites in terms of knowledge, skills and social competencies:		
Knowledge Student has knowledge of business processes, design, organization and implementation of the production processes, as well as in the area of design, evaluation, verification and implementation of production		
2 Skills Student is able to use knowledge acquired during courses of other subjects		
3 Social Student is responsible and can interact with others and work in a team		
competencies Student understands the need for lifelong learning and acting in accordance with the rules		
Assumptions and objectives of the course: Presenting knowledge of theoretical and practical problems connected with organization of production preparation and relected methods applied in this scope.		
Study outcomes and reference to the educational results for a field of study		
Knowledge:		
. Has the basic knowledge on the structure of the process of production, organizational units of production preparation - K01-InzA_W01, K02-InzA_W01, K04-InzA_W02]		
2. Knows principal methods and instruments for amassing, processing and selecting data within range of processes occurring the properties of the production - [K06-InzA_W04]		
5. Knows principal methods and instruments for modeling processes and phenomena taking place in production - [K05- nzA_W03, K1A_W09, K1A_W20]		
8. Knows principal methods and instruments for modeling processes and phenomena taking place in production - [K05-		
<ul> <li>B. Knows principal methods and instruments for modeling processes and phenomena taking place in production - [K05-nzA_W03, K1A_W09, K1A_W20]</li> <li>B. Has the knowledge on legal standards and their sources and nature, of changes in the sphere of forming the product?s</li> </ul>		
<ul> <li>B. Knows principal methods and instruments for modeling processes and phenomena taking place in production - [K05-mzA_W03, K1A_W09, K1A_W20]</li> <li>B. Has the knowledge on legal standards and their sources and nature, of changes in the sphere of forming the product?s juality - [K07-InzA_W5]</li> <li>Skills:</li> <li>Is able to forecast economic processes and phenomena by using standard methods and instruments from the sphere of</li> </ul>		
<ul> <li>B. Knows principal methods and instruments for modeling processes and phenomena taking place in production - [K05-mzA_W03, K1A_W09, K1A_W20]</li> <li>B. Has the knowledge on legal standards and their sources and nature, of changes in the sphere of forming the product?s juality - [K07-InzA_W5]</li> <li>Skills:</li> </ul>		
Knows principal methods and instruments for modeling processes and phenomena taking place in production - [K05- nzA_W03, K1A_W09, K1A_W20]     Has the knowledge on legal standards and their sources and nature, of changes in the sphere of forming the product?s uality - [K07-InzA_W5]     Skills:     Is able to forecast economic processes and phenomena by using standard methods and instruments from the sphere of conomic science and management - [K01-InzA_U5, K01-InzA_U6]		

1. Is able to complete and improve own knowledge - [K1A\_K01]

2. Is able to notice causal dependencies in the realization of fundamental objectives and determine the importance of alternative or competitive tasks within the technical preparation of the production - [K01-InzA\_K2]

3. Is determined to think and act in an enterprising and effective way - [K1A\_K07]

## Assessment methods of study outcomes

Forming assessment:

a) Classes: Current assessment of activity during classes

b) Lecture: basing on questions asked during the lecture, which refer to previous lectures on the subject

Final assessment:

a) Classes: colloquium

b) Lectures: final test

# **Course description**

Production process components, range of tasks. Production process management, technical humanization and economical aspects. Product traits, quality and reliability. Objectives, tasks and functions of product production preparation in industrial company. Constructive, technological and organizational preparation of the production? planning and designing, far-reaching and current activity. Notion and significance of technology of products construction. Technological processes of assembly. Computer aid CAD and CAD/RAM. Curve of product life cycle. Costs of the production preparation. Documentation of production preparation and flow. Organization structure of product preparation units. Designing unit, serial and mass production; group technology, Flexible Manufacturing System. Starting new production. Innovative processes in activity of industrial company.

## Basic bibliography:

1. Organizacja technicznego przygotowania produkcji prac rozwojowych, Kawecka-Endler A., Politechniki Poznańskiej, Poznań, 2004

2. Inżynieria produkcji, Karpiński T., WNT, Warszawa, 2007

3. Przygotowanie produkcji, Szatkowski K., PWN, Warszawa, 2013

### Additional bibliography:

1. Inżynieria zarządzania. Strategia i projektowanie systemów produkcyjnych cz.2, Durlik I., Agencja Wydawnicza Placet, Warszawa, 2005

### Result of average student's workload

Activity	Time (working hours)
1. Lecture	15
2. Classes	15
3. Preparation for classes	15
4. Consultations	15
5. Preparation for final test	10
6. Final test	5

#### Student's workload

Source of workload	hours	ECTS
Total workload	75	3
Contact hours	50	2
Practical activities	15	1