Zał. nr 4 do ZW 64/2012

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| COMPUTER SCIENCE AND MANAGEMENT FACULTY  **SUBJECT CARD**  **Name in Polish Zarządzanie produkcją i usługami**  **Name in English Operations Management**  **Main field of study (if applicable): Management**  **Specialization (if applicable): Enterprise Management**  **Level and form of studies: 1st level, full-time**  **Kind of subject: obligatory**  **Subject code ZMZ1235**  **Group of courses NO** |

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|  | Lecture | Classes | Laboratory | Project | Seminar |
| Number of hours of organized classes in University (ZZU) | **15** | **15** | **15** |  |  |
| Number of hours of total student workload (CNPS) | **60** | **30** | **30** |  |  |
| Form of crediting | **Examination** | **Crediting with grade** | **Crediting with grade** |  |  |
| For group of courses mark (X) final course |  |  |  |  |  |
| Number of ECTS points | **2** | **1** | **1** |  |  |
| including number of ECTS points for practical (P) classes |  | **1** | **1** |  |  |
| including number of ECTS points for direct teacher-student contact (BK) classes | **0,5** | **0,5** | **0,5** |  |  |

\*delete as applicable

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| **PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES**  1. Basic Management |

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| **SUBJECT OBJECTIVES**  C1 Knowledge the essence, objectives and issues of production and service management in the scope of strategic and operating decisions in enterprise.  C2 Understanding the essence and principles of functioning of the market and efficiency oriented operations management systems, using logistics approach to material flow management. |

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| SUBJECT EDUCATIONAL EFFECTS **Relating to knowledge:**  PEK\_W01 Knows the main definitions, objectives and strategies of operations activity management.  PEK\_W02 Has the basic knowledge in structure and functioning of production systems  PEK\_W03 Knows the essence and principles of classical and modern systems of operations management.  **Relating to skills:**  PEK\_U01 Can identify and diagnose of decisions issues of operations activity in enterprise.  PEK\_U02 Can analyze and evaluate of functioning of production and servise management systems  PEK\_U03 Can formulate alternative solutions in operations activity management.  **Relating to social competences:**  PEK\_K01 Understands the role and importance of operations activity in totality of enterprise activity.  PEK\_K02 Understands the role and importance of modern operations management systems in increasing of market effectiveness and operational efficiency of enterprises. |

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| **PROGRAMME CONTENT** | | |
| **Form of classes - lecture** | | **Number of hours** |
| Lec 1 | Operations Management Introduction. Operations Strategies | 3 |
| Lec 2 | Product. Process. Layout. Productions Environments | 2 |
| Lec 3 | Sales and Operations Planning SOP (Aggregate Planning) | 2 |
| Lec 4 | Parameters and Proceedings of Short Term Planning | 2 |
| Lec 5 | Stock Control Systems SCS | 2 |
| Lec 6 | Master Production Scheduling MPS (Operational Planning) | 2 |
| Lec 7 | Material Requirements Planning MRP | 2 |
|  | Total hours | **15** |

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| **Form of classes - class** | | **Number of hours** |
| Cl 1 | Sales and Operations Plan Optimization without bottle-necks | 3 |
| Cl 2 | Sales and Operations Plan Optimization with bottle-necks | 2 |
| Cl 3 | Inventory Control. FOQ System (EOQ Models + Reorder Point) | 2 |
| Cl 4 | Production Lead Time | 2 |
| Cl 5 | Production Lead Time Reduction | 2 |
| Cl 6 | Material Requirements Planning MRP | 2 |
| Cl 7 | *Credit for a course* | 2 |
|  | Total hours | **15** |

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| **Form of classes - laboratory** | | **Number of hours** |
| Lab 1 | OPT Simulation Game - Sales and Production Control | 3 |
| Lab 2 | OPT Simulation Game - Sales and Production Planning | 2 |
| Lab 3 | Aggregate Production Planning using POM for Windows - Pure and Mixed Planning Strategy | 2 |
| Lab 4 | Aggregate Production Planning using POM for Windows - User Defined Strategy | 2 |
| Lab 5 | Inventory Management using POM for Window. - FOQ System (EOQ Model + Reorder Point) | 2 |
| Lab 6 | Inventory Management using POM for Windows - FOQ System (Variants of EOQ Model) | 2 |
| Lab 7 | *Credit for a course* | 2 |
|  | Total hours | **15** |

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| **Form of classes - project** | | **Number of hours** |
| Proj 1 |  |  |
| Proj 2 |  |  |
| Proj 3 |  |  |
|  | Total hours |  |

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| **Form of classes - seminar** | | **Number of hours** |
| Sem 1 |  |  |
| Sem 2 |  |  |
| Sem 3 |  |  |
|  | Total hours |  |

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| **TEACHING TOOLS USED** |
| N1. Lecture: multimedia presentation  N2. Classes: computing tasks, case studies  N3. Laboratory classes: training software, laboratory reports |

**EVALUATION OF SUBJECT EDUCATIONAL EFFECTS ACHIEVEMENT**

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| **Evaluation** F – forming (during semester), P – concluding (at semester end) | Educational effect number | Way of evaluating educational effect achievement |
| F1 | PEK\_W03, PEK\_U03, PEK\_K02 | attendance at classes exercises and points limit |
| F2 | PEK\_W02, PEK\_W03, PEK\_U03, PEK\_K02 | attendance at classes exercises and points limit |
| P | PEK\_W01, PEK\_W02, PEK\_W03, PEK\_U01, PEK\_U02, PEK\_U03,  PEK\_K01, PEK\_K02 | exam |
| **C** (lecture) = P = 1  **C** (class) = F1 = 1  **C** (laboratory) = F2 = 1 | | |

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| **PRIMARY AND SECONDARY LITERATURE** |
| **PRIMARY LITERATURE:**   1. Balter J.F., Zbroja T., *Zarządzanie logistyczne w przedsiębiorstwie*, Oficyna Wydawnicza CL Consulting i Logistyka, Wrocław 2003. 2. Waters D., *Zarządzanie operacyjne. Towary i usługi*, PWN, Warszawa 2001. 3. Zbroja T., *Zarządzanie produkcją. Podręcznik*, WSO WL*,* Wrocław 2015.   **SECONDARY LITERATURE:**   1. Bozarth C.C., Handfield R.B., *Wprowadzenie do zarządzania operacjami i łańcuchem dostaw: kompletny podręcznik logistyki i zarządzania dostawami*, Helion, Gliwice 2007. 2. Heizer J., Render B., *Operations Management*, Pearson Education, Inc.,Upper Saddle River, New Jersey 2006. 3. *Zarządzanie produkcją w praktyce*, Wydawnictwo „Wiedza i Praktyka”, Warszawa 2006. |
| **SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)** |
| **Dorota Kuchta,** [**dorota.kuchta@pwr.edu.pl**](mailto:dorota.kuchta@pwr.edu.pl) |

MATRIX OF CORRELATION BETWEEN EDUCATIONAL EFFECTS FOR SUBJECT

**OPERATIONS MANAGEMENT**

AND EDUCATIONAL EFFECTS FOR MAIN FIELD OF STUDY **MANAGEMENT**

AND SPECIALIZATION **ENTERPRISE MANAGEMENT**

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| **Subject educational effect** | **Correlation between subject educational effect and educational effects defined for main field of study and specialization (if applicable)\*\*** | **Subject objectives\*\*\*** | **Programme content\*\*\*** | **Teaching tool number\*\*\*** |
| **PEK\_W01** (knowledge) | K1\_ZARZ\_W09, K1\_ZARZ\_U02, K1\_ZARZ\_U03, K1\_ZARZ\_U04, K1\_ZARZ\_U15, K1\_ZARZ\_U16, K1\_ZARZ\_U17, K1\_ZARZ\_K01 | C1 | Lec1 | N1 |
| **PEK\_W02** (knowledge) | K1\_ZARZ\_W13, K1\_ZARZ\_U08, K1\_ZARZ\_U11, K1\_ZARZ\_K01 | C1 | Lec2  Cl1 – Cl2  Lab1 – Lab2 | N1  N2  N3 |
| **PEK\_W03** (knowledge) | K1\_ZARZ\_W13, K1\_ZARZ\_U07, K1\_ZARZ\_U08, K1\_ZARZ\_U11, K1\_ZARZ\_U15, K1\_ZARZ\_U16, K1\_ZARZ\_U17, K1\_ZARZ\_K01 | C2 | Lec3 – Lec7  Cl3 – Cl6  Lab3 – Lab6 | N1  N2  N3 |
| **PEK\_U01** (skills) | K1\_ZARZ\_W09, K1\_ZARZ\_U02, K1\_ZARZ\_U03, K1\_ZARZ\_K01 | C1 | Lec 1 | N1 |
| **PEK\_U02)** (skills) | K1\_ZARZ\_W13, K1\_ZARZ\_U02, K1\_ZARZ\_U03, K1\_ZARZ\_K01 | C1, C2 | Lec2 - Lec7  Cl1 – Cl6  Lab1 – Lab6 | N1  N2  N3 |
| **PEK\_U03** (skills) | K1\_ZARZ\_W13, K1\_ZARZ\_U04, K1\_ZARZ\_U07, K1\_ZARZ\_U08, K1\_ZARZ\_U11, K1\_ZARZ\_U15, K1\_ZARZ\_U16, K1\_ZARZ\_U17, K1\_ZARZ\_K01 | C2 | Lec2 - Lec7  Cl1 – Cl6  Lab1 – Lab6 | N1  N2  N3 |
| **PEK\_K01** (competences) | K1\_ZARZ\_W13, K1\_ZARZ\_U02, K1\_ZARZ\_U03, K1\_ZARZ\_U04, K1\_ZARZ\_K01 | C1 | Lec1 – Lec2  Cl1 – Cl2  Lab1 – Lab2 | N1  N2  N3 |
| **PEK\_K02** (competences) | K1\_ZARZ\_W13, K1\_ZARZ\_U07, K1\_ZARZ\_U08, K1\_ZARZ\_U11, K1\_ZARZ\_K01 | C2 | Lec3 – Lec7  Cl1 – Cl6  Lab1 – Lab6 | N1  N2  N3 |

\*\* - enter symbols for main-field-of-study/specialization educational effects

\*\*\* - from table above