| | | | |
|---|---|---|---|
| Course title | Controlling (for ERASMUS students) | ECTS code | 4.0.2401 |
| | | ECTS credits | 5 |
| | | max. students | 15 |

| | | | | | |
|---|---|---|---|---|---|
| Name of unit administrating study | KL | Field of study | Economics/MSG** | Field of specialisation | NONE; |
| Teaching staff | Cezary Mańkowski, Associate Professor | | | | |

| Number of hours | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lectures | 0 | Classes | 0 | Tutorials | 0 | Laboratory | 30 | Seminars | 0 | Language classes | 0 |

| | | | |
|---|---|---|---|
| Forma aktywności | | Year&Type of studies* | 2 SS1, 3 SS1, 1 SS2, 2 SS2, |
| Hours with the participation of the academic teacher (including office hours, exams, others): | | Semester: | 4, 6, 2, 4, |
| Hours without the participation of the academic teacher (student's self-study, homeworks): | | Type of course: | optional |
| Total number of hours: | 0 | Language of instruction: | English |

| | |
|---|---|
| Teaching form | in-class learning<br><br>C205 |
| Teaching methods | Work in computer laboratories, Case studies, Individual projects, |

**Prerequisites (required courses and introductory requirements)**

| | |
|---|---|
| Required courses | None |
| Introductory requirements | General knowledge on business processes |

**Assessment method, forms and criteria**

| | |
|---|---|
| Assessment method | Course completion (graded) |
| Assessment criteria | Student is required to perform 3 projects.<br><br>Project 1: a map of controlling system components/structure, which stands for 1/3 of the assessment<br>Project 2: a report on KPI's as targets to keep or achieve, which stands for 1/3 of the assessment<br>Project 3: a ranking of product segments/divisions profitability, which stands for 1/3 of the assessment<br><br>The projects are assessed according to their substantive correctness, and the grading scale is consistent with the study regulations. |

**Course objectives**

The objective of this course is to offer students the knowledge, skills and social competence related to controlling.

**Learning outcomes**

| | | |
|---|---|---|
| Knowledge | E1_W06 | Student knows at an advanced level selected methods and tools for controlling economic processes |
| | MSG1_W17 | Student has advanced knowledge on how to put a business under control |
| | E2_W07 | Student has in-depth knowledge of the economic and financial operation and management of business entities and organizations according to controlling principles |
| | MSG2_W09 | Student has in-depth knowledge of the controlling functions, methods, and tools of a modern enterprise in the national and international environment |

**Verification of learning outcomes - Knowledge**

| Outcomes | written exam | oral exam | test | essay/paper /portfolio | tasks/ homeworks | individual presentation | group presentation | classroom activities | classroom discussion | individual project | group project |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| E1_W06 | | | | | | | | | | X | |
| MSG1_W17 | | | | | | | | | | X | |
| E2_W07 | | | | | | | | | | X | |
| MSG2_W09 | | | | | | | | | | X | |

| | | |
|---|---|---|
| Skills | E1_U08 | Student can observe, understand, and analyse economic and social processes, using appropriately selected controlling methods and tools. |
| | MSG1_U08 | Student can use basic controlling methods and computer programmes as well as tools to acquire and analyse data necessary in his/her professional work to diagnose and assess business processes to make adequate economic decisions. |
| | E2_U08 | Student can independently analyse economic and social processes, and can perform an assessment of such processes, using appropriately selected controlling methods and tools. |
| | MSG2_U10 | Student can accurately select and use sources of controlling information to critically analyse and interpret business processes. |

Verification of learning outcomes - Skills

| Outcomes | written exam | oral exam | test | essay/paper /portfolio | tasks/ homeworks | individual presentation | group presentation | classroom activities | classroom discussion | individual project | group project |
|---|---|---|---|---|---|---|---|---|---|---|---|
| E1_U08 | | | | | | | | | | X | |
| MSG1_U08 | | | | | | | | | | X | |
| E2_U08 | | | | | | | | | | X | |
| MSG2_U10 | | | | | | | | | | X | |

| | | |
|---|---|---|
| Attitudes | E1_K05 | Student correctly identifies, diagnoses and solves dilemmas and alternative solutions related to the profession of business process controller. |
| | MSG1_K05 | Student correctly identifies, diagnoses and solves dilemmas and alternative solutions related to the profession of business process controller. |
| | E2_K05 | Student correctly identifies, diagnoses and solves dilemmas and alternative solutions related to the profession of business process controller. |
| | MSG2_K06 | Student is ready to independly identify, diagnose and responsibly solve dilemmas and alternative solutions related to the profession of business process controller. |

Verification of learning outcomes - Attitudes

| Outcomes | written exam | oral exam | test | essay/paper /portfolio | tasks/ homeworks | individual presentation | group presentation | classroom activities | classroom discussion | individual project | group project |
|---|---|---|---|---|---|---|---|---|---|---|---|
| E2_K05 | | | | | | | | | | X | |
| MSG1_K05 | | | | | | | | | | X | |
| E2_K05 | | | | | | | | | | X | |
| MSG2_K06 | | | | | | | | | | X | |

Course contents

1. Controlling system structure
The idea of controlling (definitions, dimensions, applications, cases). Functions of controlling process. Components of the controlling as a cybernetic system. Attributes and relations between the controlling and the controlled processes. Controlling centers. Case study.
2. Planning key performance indicators (KPI's) as targets to achieve or keep based on flexible budgeting
The idea of KPI's as targets to achieve and to keep. The method of flexible budgeting. The structure of the flexible budget spreadsheet. System of financial and non-financial KPI's. Calculations of KPI's. Case study.
3. Measuring and identifying variance on controlled process including profitability of products or companies based on rolling budgeting
The idea of rolling budgeting. The structure of rolling budgeting spreadsheet. The identification of absolute and relative

variance on controlled indicators. The hierarchy of profitability of products/SBU's. Propositions of corrective decisions based on the hierarchy of products/SBU's profitability. Case study.
4. Variance analysis
Qualitative/quantitative methods and tools to identify the variance significance. The calculation of confidence interval for controlled parameters. The application of statistical test for the identification of variance significance. Case study.
5. Statistical process control (SPC)
Six sigma. Shewhart control charts. Process flow diagram. Ishikawa diagram. Pareto diagram. Check-sheet. Scatter plot. ABC analysis.

| Recommended reading lists |
|---|

**Core literature:**
1. Shim J.K., Siegel J.G., Dauber N.: *Corporate controller's handbook of financial management*. CCH, Inc., 2008.
2. Mańkowski C.: *Planning key logistics indicators as targets to be achieved or kept*. (pages 141-158) Article is available at http://ekonom.ug.edu.pl/web/download.php?OpenFile=1690.

**Additional literature:**
1. Drury C.: *Management and cost accounting*. Cengage Learning EMEA, London 2015.
2. Bragg S.M.: *Controllership: the work of the managerial accountant*. John Wiley & Sons, 2009.

| Contact | cezary.mankowski@ug.edu.pl, |
|---|---|

* SS1- undergraduate studies * SS2 - graduate studies * SDang - doctoral studies
** MSG - International Economic Relations