Course description form (syllabus form) – for 1st and 2nd cycle studies

**A. General data**

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| **Name of the field** | | **Content** |
| Course title | | Management Information Systems (MIS) |
| Organizational unit: | | Faculty of Management |
| Organizational unit where the course is offered: | | International Business Program (IBP) |
| Course ID | | 2600-IBP-MIS |
| Erasmus code / ISCED | | (in Polish) Przedmioty dla 1 roku, 2 sem., stacjonarne, IBP (Nowy Program ważny od 2022/2023)  (in Polish) Przedmioty dla 2 roku, 3 sem., stacjonarne, IBP (Nowy Program ważny od 2022/2023) |
| Course groups | |  |
| Period when the course is offered | | summer term 2023/2024 |
| Short description | | This course provides an in-depth analysis of Management Information Systems (MIS) implemented in various organizations and across different sectors. It also focuses on the integration of cutting-edge technologies within key business domains such as the company's performance and operational efficiency, production, supply and value chains, marketing, sales, customer engagement, and the management of internet users' personal data.  It presents the role of MIS in strategic decision-making in today's data-intensive business environment with a view to optimizing operational efficiency, adapting to and leveraging emerging technologies like AI, IoT, and blockchain, and enhancing executives' leadership and management capabilities. This knowledge is critical for maintaining a competitive edge, as it enables students to apply technology for innovation and market expansion, manage information across diverse markets and understand customer data, facilitating customer-centric strategies. The course also includes an understanding of issues such as cybersecurity and risk management, which is necessary for safeguarding organizational data and navigating the complexities of today's business world. |
| Type of course: | | obligatory courses |
| Full description | | The scope of the course is as follows:   1. The definition, role and place of MIS in organizations. 2. MIS development areas: architecture, functional integration and scope of application. 3. Digitalization and new ICT solutions: artificial intelligence, machine learning, big data, blockchain, IoT, VR and AR, etc. in MIS. 4. The present condition and development of e-commerce and digital consumer trends. 5. The foundations of electronic and mobile banking and payments. New developments in finance and banking: FinTech, Open Finance and DeFi. 6. The necessary conditions and barriers to implementation of MIS in organizations. Effective use of ICT solutions in organizations and industries. 7. Enterprise architecture. IT governance. Cybersecurity. Analyzing data and knowledge management strategies using MIS: selected examples and case studies. 8. Management and application of new ICT technologies – key concepts. 9. Selected methods of the evaluation of ICT solutions: platforms, websites and mobile applications. |
| Prerequisites | Formal |  |
| Initial | Knowledge and understanding of MIS and ICT solutions |
| Learning outcomes | | Upon completion of this course, Student:   * demonstrates knowledge of basic concepts, terminology and research methods related to Management Information Systems (MIS) considering their relevance and application in the fields of management, economics, finance and law (KW01), * demonstrates an understanding of the principles, procedures and practices related to the application Management Information Systems (MIS) in the areas of data processing and analytics, marketing, sales, customer service, production, supply and value chain focusing on leveraging MIS to streamline operations, enhance decision-making processes, and improve overall organizational efficiency (KW02), * identifies new economic phenomena, technologies and their specific applications that support businesses in the field of data analytics involving identifying emerging economic trends, technological advancements, deriving actionable insights from vast datasets, thereby supporting strategic objectives and decision-making (KW06), * identifies the challenges related to the development of Management Information Systems (MIS), evaluates the quality of different types of modern technological solutions (AI, AR, VR, IoT and big data) and the impact they have on businesses, human resources, consumers and their behavior (KU02), * distinguishes between different types of MIS and identifies examples of their practical application in data processing, customer-centric operations: personalization, market segmentation and customer profiling as well as improving performance and efficiency within the company, selecting and using appropriate sources (KU02), * uses English at the level of B2-C2 (CEFR) (KU04), * assesses the feasibility of implementing Management Information Systems (MIS) in different areas of the organization's operations (KK01), * analyzes the usefulness of modern Management Information Systems (MIS) in different areas of activity and the benefits of their application, analyzes examples of the application of modern digital solutions in the context of data collection, processing and analysis as well as the opportunities and threats they bring to the business, sector and the entire economy (KK01), * understands methods of evaluating MIS in terms of data analysis, their effectiveness and usefulness with the consideration of the principles of ethical conduct, data protection, privacy, cybersecurity, copyright and intellectual property (KK03). |
| ECTS credit allocation (and other scores) | | 4.00 |
| Assessment methods and assessment criteria | | Case studies discussed and presented in small groups (3-5 students each).  Final assessment: 40% presentation of the team project and its results and 60% written exam,   * Presentation of the results of a team project prepared in small international teams (30 minutes including discussions). Grade weighting: * End-of-semester written exam (multiple choice test – 45 minutes) on the eKampus platform, (an active student account in the IT infrastructure of the UW Faculty of Management is required). A minimum of 51% score from the final test is required to obtain a credit for the course. Grading scale: 3 (51%-60%), 3+ (61%-70%), 4 (71%-80%), 4+ (81%-90%), 5 (91%-100%) |
| Examination | | Final multiple-choice test and presentation of the results of a team project. |
| Type of class | | obligatory courses, seminar |
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| Language | | English |
| Bibliography | | *Main references:*  *Cantoni, F., Mangia G., Human Resource Management and Digitalization, Routledge, Taylor & Francis Group, 2019.*  *Chmielarz W.: Information Technology Project Management, Wydawnictwo Naukowe WZ UW, Dom Wydawniczy Elipsa, Warsaw, 2015.*  *Cordon C., Garcia-Mila P., Ferreiro Vilarino T., Caballero P., Strategy is Digital. How Companies Can Use Big Data in the Value Chain, Springer, 2016.*  *Dyché, J.: The New IT: How Technology Leaders Are Enabling Business Strategy in the Digital Age, McGraw-Hill, 2015.*  *Johanning V., IT Strategy. Making IT Fit for the Digital Transformation, Springer, 2022.*  *Laudon K. C., Laudon J. P.: Management Information Systems: Managing the Digital Firm, Global Edition 17th Edition, Pearson, 2021.*  *Laudon K. C., Laudon J. P., Traver C. G., Essentials of MIS, Fifteenth edition, Pearson, 2024.*  *Paliszkiewicz J., Guerrero Cusumano J. L., Gołuchowski J., Trust, Digital Business and Technology: Issues and Challenges, Routledge, Taylor & Francis, 2022.*  *Turban E., at al.: Information Technology for Management: Driving Digital Transformation to Increase Local and Global Performance, Growth and Sustainability, 12th Edition, 2021.*  *Stencel J. at al.: CIO Best practices: Enabling Strategic Value with Information Technologies, Wiley and SAS Business Series, 2010.*  *Selected readings from Developments in Information and Knowledge Management Systems for Business Applications, series: Studies in Systems, Decision and Control, Volumes 6 and 7, Springer, 2023.* |
| Internship as part of the course | | not required |
| Coordinators | | **Dr Alicja Fandrejewska** |
| Group instructors | | **Dr Alicja Fandrejewska** |
| Notes | |  |

**B. Detailed data**

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| **Name of the field** | **Content** |
| Group instructors: | **Dr Alicja Fandrejewska** |
| Title | **Management Information Systems (MIS)** |
| Type of class: |  |
| Learning outcomes defined for didactic method used during the course | Upon completion of this course, Student:   * demonstrates knowledge of basic concepts, terminology and research methods related to Management Information Systems (MIS) considering their relevance and application in the fields of management, economics, finance and law (KW01), * demonstrates an understanding of the principles, procedures and practices related to the application Management Information Systems (MIS) in the areas of data processing and analytics, marketing, sales, customer service, production, supply and value chain focusing on leveraging MIS to streamline operations, enhance decision-making processes, and improve overall organizational efficiency (KW02), * identifies new economic phenomena, technologies and their specific applications that support businesses in the field of data analytics involving identifying emerging economic trends, technological advancements, deriving actionable insights from vast datasets, thereby supporting strategic objectives and decision-making (KW06), * identifies the challenges related to the development of Management Information Systems (MIS), evaluates the quality of different types of modern technological solutions (AI, AR, VR, IoT and big data) and the impact they have on businesses, human resources, consumers and their behavior (KU02), * distinguishes between different types of MIS and identifies examples of their practical application in data processing, customer-centric operations: personalization, market segmentation and customer profiling as well as improving performance and efficiency within the company, selecting and using appropriate sources (KU02), * uses English at the level of B2-C2 (CEFR) (KU04), * assesses the feasibility of implementing Management Information Systems (MIS) in different areas of the organization's operations (KK01), * analyzes the usefulness of modern Management Information Systems (MIS) in different areas of activity and the benefits of their application, analyzes examples of the application of modern digital solutions in the context of data collection, processing and analysis as well as the opportunities and threats they bring to the business, sector and the entire economy (KK01), * understands methods of evaluating MIS in terms of data analysis, their effectiveness and usefulness with the consideration of the principles of ethical conduct, data protection, privacy, cybersecurity, copyright and intellectual property (KK03). |
| Assessment methods and assessment criteria for didactic method used during the course | Case studies discussed and presented in small groups (3-5 students each).  Final assessment: 40% presentation of the team project and its results and 60% written exam,   * Presentation of the results of a team project prepared in small international teams (30 minutes including discussions). Grade weighting: * End-of-semester written exam (multiple choice test – 45 minutes) on the eKampus platform, (an active student account in the IT infrastructure of the UW Faculty of Management is required). A minimum of 51% score from the final test is required to obtain a credit for the course. Grading scale: 3 (51%-60%), 3+ (61%-70%), 4 (71%-80%), 4+ (81%-90%), 5 (91%-100%) |
| Examination for didactic method used during the course | Final multiple-choice test and presentation of the results of a team project. |
| Range of content | The scope of the course is as follows:   1. The definition, role and place of MIS in organizations. 2. MIS development areas: architecture, functional integration and scope of application. 3. Digitalization and new ICT solutions: artificial intelligence, machine learning, big data, blockchain, IoT, VR and AR, etc. in MIS. 4. The present condition and development of e-commerce and digital consumer trends. 5. The foundations of electronic and mobile banking and payments. New developments in finance and banking: FinTech, Open Finance and DeFi. 6. The necessary conditions and barriers to implementation of MIS in organizations. Effective use of ICT solutions in organizations and industries. 7. Enterprise architecture. IT governance. Cybersecurity. Analyzing data and knowledge management strategies using MIS: selected examples and case studies. 8. Management and application of new ICT technologies – key concepts. 9. Selected methods of the evaluation of ICT solutions: platforms, websites and mobile applications. |
| Didactic methods | Interactive lectures, case study scenarios, MIS presentations, assigned readings, preparation of a team project. |
| Bibliography | *Main references:*  *Cantoni, F., Mangia G., Human Resource Management and Digitalization, Routledge, Taylor & Francis Group, 2019.*  *Chmielarz W.: Information Technology Project Management, Wydawnictwo Naukowe WZ UW, Dom Wydawniczy Elipsa, Warsaw, 2015.*  *Cordon C., Garcia-Mila P., Ferreiro Vilarino T., Caballero P., Strategy is Digital. How Companies Can Use Big Data in the Value Chain, Springer, 2016.*  *Dyché, J.: The New IT: How Technology Leaders Are Enabling Business Strategy in the Digital Age, McGraw-Hill, 2015.*  *Johanning V., IT Strategy. Making IT Fit for the Digital Transformation, Springer, 2022.*  *Laudon K. C., Laudon J. P.: Management Information Systems: Managing the Digital Firm, Global Edition 17th Edition, Pearson, 2021.*  *Laudon K. C., Laudon J. P., Traver C. G., Essentials of MIS, Fifteenth edition, Pearson, 2024.*  *Paliszkiewicz J., Guerrero Cusumano J. L., Gołuchowski J., Trust, Digital Business and Technology: Issues and Challenges, Routledge, Taylor & Francis, 2022.*  *Turban E., at al.: Information Technology for Management: Driving Digital Transformation to Increase Local and Global Performance, Growth and Sustainability, 12th Edition, 2021.*  *Stencel J. at al.: CIO Best practices: Enabling Strategic Value with Information Technologies, Wiley and SAS Business Series, 2010.*  *Selected readings from Developments in Information and Knowledge Management Systems for Business Applications, series: Studies in Systems, Decision and Control, Volumes 6 and 7, Springer, 2023.* |
| Group limit |  |
| Time span | every Wednesday, 9:00 - 11:30 |
| Location | University of Warsaw, Faculty of Management,  Room A 207, building no. 2034 |