



SYLLABUS
Tourism Information Systems
Academic year 2025-2026

1. Information regarding the program

1.1. Higher education institution	Universitatea Babeș Bolyai
1.2. Faculty	Business
1.3. Department	Hospitality Services
1.4. Field of study	Business Administration
1.5. Study cycle	Master
1.6. Study programme/Qualification	Business Administration in International Hospitality and Tourism /Master
1.7. Form of education	Full time

2. Information regarding the discipline

2.1. Name of the discipline		Tourism information systems				Discipline code		IME0034			
2.2. Course coordinator			Assoc. Prof. Rozalia Veronica Rus								
2.3. Seminar coordinator			Assoc. Prof. Rozalia Veronica Rus								
2.4. Year of study		I	2.5. Semester		2	2.6. Type of evaluation		C	2.7. Discipline regime		Mandatory

3. Total estimated time (hours/semester of didactic activities)

3.1. Hours per week	3	of which: 3.2 course	2	3.3 seminar/laboratory	1
3.4. Total hours in the curriculum	42	of which: 3.5 course	28	3.6 seminar/laborator	14
Time allotment for individual study (ID) and self-study activities (SA)					hours
Learning using manual, course support, bibliography, course notes (SA)					28
Additional documentation (in libraries, on electronic platforms, field documentation)					20
Preparation for seminars/labs, homework, papers, portfolios and essays					48
Tutorship					2
Evaluations					4
Other activities:					6
3.7. Total individual study hours					108
3.8. Total hours per semester					150
3.9. Number of ECTS credits					6

4. Prerequisites (if necessary)

4.1. curriculum	
4.2. competencies	

5. Conditions (if necessary)

5.1. for the course	The course will be held in the IT laboratory. Students need a Microsoft institutional account, Microsoft Teams application, computer, Internet connection, Microsoft Office 365, access to Oracle Hospitality OPERA, Protel, eXpresSoft Check, eXpresSoft Master), eXpresSoft myBusiness, Breeze, KeepApp, Power BI Desktop, and Power BI app.
5.2. for the seminar /lab activities	Internet access, software, Microsoft Office (Excel), Oracle Hospitality OPERA, Protel, eXpresSoft Check, eXpresSoft Master,



eXpresSoft myBusiness, POS for Restaurant, Breeze, KeepApp, Power BI Desktop and, Power BI app.

6.1. Specific competencies acquired

Professional/essential competencies	<ul style="list-style-type: none">C4. Drawing up decision-based strategies/ alternatives specific to hospitality/ tourism units by means of modern information technology toolsC5. Drawing up various reports/ studies useful for the running of a hospitality/ tourism unit and the provision of consultancy in the field
Transversal competencies	<ul style="list-style-type: none">CT2. Identification of roles and responsibilities in a team and their implementation within various hospitality and tourism-based businesses

6.2. Learning outcomes

Knowledge	<ul style="list-style-type: none">the student distinguishes the characteristics and functions of the various IT systems used in tourism - such as Property Management Systems, Restaurant Management Systems, Decision Support Systemsthe student identifies the basics of software packages used in tourism, their main features and how to use powerful software products to solve problems in the field of hospitality and tourism.
Skills	<ul style="list-style-type: none">the student makes efficient use of software applications to manage individual and group bookings, to manage restaurant orders and to obtain the necessary reports for decision-making,
Responsibility and autonomy:	<ul style="list-style-type: none">the student independently uses Property Management Systems, Restaurant Management Systems, and Decision Support Systems to solve various problems in hospitality and tourism.



7. Objectives of the discipline (outcome of the acquired competencies)

7.1 General objective of the discipline	This course is designed to introduce students to Information Systems used in Tourism Industry and will give students a fundamental understanding of these types of information systems and a practical experience with different types of information systems for tourism: Property Management Systems, Point of Sales, Restaurant Management Systems, Customer Relationship Management Systems, Event Management Systems, Decision Support Systems, Business Intelligence.
7.2 Specific objective of the discipline	<ul style="list-style-type: none"> • identify common use of ICT in Tourism; • understand the role of Tourism Information Systems; • describe how the different sectors of the tourism industry are being affected by IT and how they apply IT in their operations; • describe the basic functions performed by hospitality information systems: Property Management Systems, Restaurant Management Systems, Customer Relationship Management Systems, Event Management Systems, Decision Support Systems, Business Intelligence, etc. • use Opera PMS to add reservations, payments, preview reports, etc; • use a cloud-based Hotel Management Software (Protel); • use of restaurant management software: eXpresSoft Check, eXpresSoft Master; • use of event management software: Medallion Banqueting Module; • use of cloud-based restaurant management solutions: eXpresSoft myBusiness, Breeze, KeepApp; • use of POS for sales and reporting; • identify modalities to use ICT to improve the decision-making process.

8. Content

8.1 Course	Teaching methods	Remarks
Information Systems – Introduction (Information system's definitions, Types of information systems in Tourism). The components of Information Systems in Tourism. Information system design (Hardware, Software, Human resources, Data, Procedures. Information system life cycle, Information systems development methodologies, System Development Life Cycle)	Interactive lecture, multimedia (video projector), discussion	1 course
New Information and Communication Technologies in Tourism Industry. Artificial Intelligence tools.	Interactive lecture, step-by-step training	1 course
Property Management Systems (Overview of PMS: main characteristics; interfaces with other systems. On-premises vs. cloud-based systems).	Interactive lecture, step-by-step training	1 course
Property Management Systems (User interface. Main features of Oracle Opera and Protel. Individual and group reservation. Advanced search. Client history. Customer Management Systems (CRM)).	Interactive lecture, step-by-step training	2 courses
Property Management Systems (Check-in – Check-out, payments, invoices, rooms)	Interactive lecture, step-by-step training	2 courses



management, housekeeping, rate management. Reports. Night audit.)		
Information systems for Food Service Sector (POS and Restaurant Management Systems. eXpresSoft Check and eXpresSoft Master – characteristics, utilization). Cloud-based solutions for Food Service Sector: eXpresSoft myBusiness, Breeze, KeepApp. SaaS (Software as a service): Breeze Professional and Keep App. Information systems for Events management (Main characteristics and usage: Medallion Banqueting Module).	Interactive lecture, step-by-step training	2 courses
Management information systems in Tourism (Decision support systems; Executive Information Systems; Expert Systems). Spreadsheet based DSS.	Interactive lecture, step-by-step training	1 course
Business Intelligence. Data analytics.	Interactive lecture, step-by-step training	1 course
Transportation and Information Technology (Airline Reservation Systems, Revenue Management Systems, Geographic Information System (GIS), Intelligent Transportation Systems)	Interactive lecture, step-by-step training	1 course
Tourist Experiences and Information Technology	Interactive lecture, step-by-step training	1 course
Bibliography 1. Benckendorff, Pierre J., Zheng Xiang, and Pauline J. Sheldon (2019). Tourism information technology, 3rd edition. Cabi. 2. Sigala, M., Rahimi, R. and Thelwall Mike (2019), Big Data and Innovation in tourism, travel and hospitality: managerial approaches, techniques and applications, Springer. 3. Bélanger F., Van Slyke, C., Clossler, R. E. (2016), Information Systems for Business, An Experiential Approach, Prospect Press. 4. Collins, G. R., Cobanoglu, C., (2013), Hospitality Information Technology: learn how to use it, Kendall Hunt Pub. 5. Nyheim, Peter, and Daniel Connolly (2011), Technology strategies for the hospitality industry, Prentice Hall Press. 6. Tesone, D. V., (2006) Hospitality Information Systems and E-Commerce, John Wiley&Sons, New Jersey. 7. Turban, Efraim, Carol Pollard, and Gregory Wood (2021). Information Technology for Management: Driving Digital Transformation to Increase Local and Global Performance, Growth and Sustainability. John Wiley & Sons. 8. ***, eXpresSoft Check user guide. 9. ***, eXpresSoft Master user guide. 10. ***, Opera user guide. 11. ***, eXpresSoft myBusiness user guide 12. ***, Protel user guide.		
8.2 Seminar / laboratory	Metode de predare	Observații
Information Systems – Introduction	step-by-step training, didactic exercise, case studies.	1 laboratory
New Information and Communication Technologies in Tourism Industry. Artificial Intelligence tools – Power automate.	step-by-step training, didactic exercise, case studies.	1 laboratory



Property Management Systems	step-by-step training, didactic exercise	5 laboratories
Information systems for Food Service Sector. Information systems for Events management.	step-by-step training, didactic exercise	2 laboratories
Developing Spreadsheet-based DSS in Excel. Optimization and Linear programming. Solving problems related to: Determining Product Mix, Employee Scheduling Problem, Transport problem. Goal Seek. What-If.	step-by-step training, didactic exercise	1 laboratory
Business Intelligence. Data analytics. Power BI Desktop and, Power BI app.	step-by-step training, didactic exercise	1 laboratory
Transportation and Information Technology	step-by-step training, didactic exercise	1 laboratory
Tourist Experiences and Information Technology	step-by-step training, didactic exercise	1 laboratory
Bibliography		
<ol style="list-style-type: none"> 1 Benckendorff, P.J., Sheldon, P.J., Fesenmaie, D. R. (2014), Tourism Information Technology, CABI. 2 Benckendorff, Pierre J., Zheng Xiang, and Pauline J. Sheldon (2019). Tourism information technology, 3rd edition. Cabi. 3 Sigala, M., Rahimi, R. and Thelwall Mike (2019), Big Data and Innovation in tourism, travel and hospitality: managerial approaches, techniques and applications, Springer. 4 Bélanger F., Van Slyke, C., Clossler, R. E. (2016), Information Systems for Business, An Experiential Approach, Prospect Press. 5 Collins, G. R., Cobanoglu, C., (2008), Hospitality Information Technology: learn how to use it, Kendall Hunt Pub. 6 Nyheim, Peter D., McFadden, Francis M., Connolly, D. J. (2005), Technology Strategies for The Hospitality Industry, Pearson Prentice Hall. 7 Tesone, D. V., (2006) Hospitality Information Systems and E-Commerce, John Wiley&Sons, New Jersey. 8 Turban, Efraim, Carol Pollard, and Gregory Wood (2021). Information Technology for Management: Driving Digital Transformation to Increase Local and Global Performance, Growth and Sustainability. John Wiley & Sons. 9 ***, eXpresSoft Check and eXpresSoft Master user guide. 10 ***, Opera user guide. 11 ***, eXpresSoft myBusiness user guide. <p>***, Protel user guide</p>		



9. Corroborating the content of the discipline with the expectations of the epistemic community, professional associations and representative employers within the field of the program

- The content of the course is correlated with the content of similar courses offered by universities from our country and from abroad.
- ICT knowledge and skills are necessary for the Tourism Industry.
- To adapt the content of this course to the labor market needs we had discussions with students, alumni, hotels and restaurants' business representatives and with the representatives of Property Management Systems developers and suppliers. The software products used in this course are provided by ExpresSoft Technology and BitSoftware (Oracle and Protel exclusive representative in Romania).

10. Evaluation

- The same evaluation criteria are maintained for all exams sessions. The components of the evaluation process carried out during the semester cannot be recovered/redone in the examination sessions.
- To be able to accumulate the points obtained during the semester, it is mandatory to obtain a minimum of 5 (five) in the final exam (written/oral).

Activity type	10.1 Evaluation criteria	10.2 Evaluation methods	10.3 Percentage of final grade
10.4 Course	understanding the terminology	Final evaluation: Multiple choice test - theory	40 %
10.5 Seminar/laboratory	ability to use specific software solutions;	<ul style="list-style-type: none"> • First assignment - Property Management Systems, team assignment - 25% • Second assignment - Restaurant Management Systems, team assignment - 15% • Third assignment - Decision Support Systems/Business Intelligence - team assignment - 20% <p>The assignments will be sent at deadlines, during the semester. You must hand in at list 1 assignment.</p> <p>1 team should not have more than 3 members.</p>	60 %
10.6 Minimum standard of performance			
<ul style="list-style-type: none"> • Basic knowledge of theory and ability to use all the software solutions studied 			



11. Labels ODD (Sustainable Development Goals)¹

	General label for Sustainable Development							

Date:
03.04.2025

Signature of course coordinator
Assoc. Prof. Rozalia Veronica Rus

Signature of seminar coordinator
Assoc. Prof. Rozalia Veronica Rus

Date of approval:
10.04.2025

Signature of the head of department
Assoc. Prof. Marius Bota

¹ Keep only the labels that, according to the [Procedure for applying ODD labels in the academic process](#), suit the discipline and delete the others, including the general one for *Sustainable Development* – if not applicable. If no label describes the discipline, delete them all and write „Not applicable.”.