



SYLLABUS
Forecasting in Tourism
Academic Year 2025-2026

1. Information regarding the program

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

2. Information regarding the discipline

2.1. Name of the discipline	Forecasting in Tourism			Discipline code	IME0035		
2.2. Course coordinator	Ioan Cristian CHIFU, PhD						
2.3. Seminar coordinator	Ioan Cristian CHIFU, PhD						
2.4. Year of study	1	2.5. Semester	2	2.6. Type of evaluation	E	2.7. Discipline regime	Compulsory

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)					28
Preparation for seminars/labs, homework, papers, portfolios and essays					28
Tutorship					2
Evaluations					4
Other activities:					18
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	classroom with computer and projector;
5.2. for the seminar /lab activities	classroom with computer and projector;



6.1. Specific competencies acquired

Professional/ essential competencies	C5. Drawing up various reports/ studies useful for the running of a hospitality/ tourism unit and the provision of consultancy in the field
Transversal competencies	CT1. Promoting the principles, norms and values of professional ethics in conditions of professional autonomy and independence.

6.2. Learning outcomes

Knowledge	<p>The graduate has complex knowledge of accounting, processing, and analysis of economic and financial information required for an effective organization and management of businesses in the hospitality industry and international tourism.</p> <ul style="list-style-type: none"> ✓ know how to use spreadsheet data creation and editing software tools to perform mathematical calculations, organize data and information, create data-driven charts, and retrieve them. ✓ know how to use dedicated software for data analysis, including statistics, spreadsheets and databases. Explore the possibilities to prepare reports for administrators, superiors or customers.
Skills	<p>The graduate demonstrates a high ability to understand the complexity of macroeconomic policies and is, thus, able to infer their implications for businesses in the hospitality industry and international tourism.</p> <ul style="list-style-type: none"> ✓ assesses the state of a business on its own and in relation to the competitive field of activity, conducts research, putting data in the context of the company's needs and determining areas of opportunity
Responsibility and autonomy:	The graduate is able to perform complex professional tasks, under conditions of autonomy and professional independence.

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

7.1 General objective of the discipline	<ul style="list-style-type: none"> • learning the econometrics principles and understanding its principles as a tool for quantitative analysis
7.2 Specific objective of the discipline	<ul style="list-style-type: none"> • the ability to use statistical and econometrical language and acquire knowledge and skills in an area with a very large application at macro and micro level: econometrics • develop skills of data analysis that describes an economic phenomenon • development of communication skills in econometric language.

8. Content

8.1 Course	Teaching methods	Remarks
1. Introductory course – research methods in tourism	interactive discussion, problematization	1 course
2. Data analysis in tourism and hospitality	interactive discussion	1 course



<ul style="list-style-type: none"> The nature of data in tourism and hospitality Estimators Hypothesis testing Comparison of samples 		
<p>3. Time series analysis</p> <ul style="list-style-type: none"> Component factors of time series Analysis of the evolution of a time series Smoothing methods – moving average method, exponential smoothing 	interactive discussion	1 course
<p>4. The linear regression model: two-variable model</p> <ul style="list-style-type: none"> Population regression function Sample regression function Estimation of parameters: The method of ordinary least squares Hypothesis testing Coefficient of correlation. Coefficient of determination Forecasting Considerations on the ordinary least squares method 	interactive discussion	1 course
<p>5. Multiple linear regression</p> <ul style="list-style-type: none"> The three-variable linear regression model Estimation of parameters Hypothesis testing in multiple regression Coefficient of determination Removing explanatory variables from the model Adding explanatory variables to the model Forecasting 	interactive discussion	1 course
<p>6. Other types of regression</p> <ul style="list-style-type: none"> Models that reduce to the simple linear model Choosing the best model Models reduced to multiple linear model Least squares method with restrictions 	interactive discussion	1 course
<p>7. Least-Squares Trend Fitting and Forecasting</p> <ul style="list-style-type: none"> The Linear Trend Model The Quadric Trend Model The exponential Trend Model Model Selection The principle of parsimony 	interactive discussion	1 course
<p>8. Time series forecasting of seasonal data</p> <ul style="list-style-type: none"> ✓ Least square forecasting with monthly or quarterly data 	interactive discussion	1 course
<p>9. Regression on dummy explanatory variables</p> <ul style="list-style-type: none"> ANOVA models ANCOVA models 	interactive discussion	1 course
<p>10. Logit and probit models</p>	interactive discussion	1 course



11. Dynamic economic models <ul style="list-style-type: none"> Autoregressive models Distributed lag models 	interactive discussion	1 course
12. Autocorrelation <ul style="list-style-type: none"> The nature of autocorrelation Consequences of autocorrelation Detection of autocorrelation Remedial measures 	interactive discussion	1 course
13. Models with simultaneous equations <ul style="list-style-type: none"> Estimating models with simultaneous equations The problem of identification 	interactive discussion	1 course
14. Review and Project Presentation	interactive discussion	1 course
Bibliography: <ol style="list-style-type: none"> Bereson, M.L., Levine, D.M., Krehbiel, T.C., Basic Business Statistics, Pearson, Prentice Hall, NJ, 2009. Gujarati, D., Porter, D.C., Basic Econometrics. New York: McGraw-Hill, 2009 Ruud, P.A., Classical Econometric Theory, Oxford University Press, 2000. Wooldridge, J.M., Introductory Econometrics, South-Western College Publishing, 2000. Reader_Forecasting_2025_2026 (Course's Teams class) 		
8.2 Seminar / laboratory	Metode de predare	Observații
1. Introductory course – research methods in tourism	interactive discussion, problematization	1 seminar
2. Data analysis in tourism and hospitality <ul style="list-style-type: none"> The nature of data in tourism and hospitality Estimators Hypothesis testing Comparison of samples 	interactive discussion	1 seminar
3. Time series analysis <ul style="list-style-type: none"> Component factors of time series Analysis of the evolution of a time series Smoothing methods – moving average method, exponential smoothing 	interactive discussion	1 seminar
4. The linear regression model: two-variable model <ul style="list-style-type: none"> Population regression function Sample regression function Estimation of parameters: The method of ordinary least squares Hypothesis testing Coefficient of correlation. Coefficient of determination Forecasting Considerations on the ordinary least squares method 	interactive discussion	1 seminar
5. Multiple linear regression <ul style="list-style-type: none"> The three-variable linear regression model Estimation of parameters Hypothesis testing in multiple regression Coefficient of determination 	interactive discussion	1 seminar



<ul style="list-style-type: none"> • Removing explanatory variables from the model • Adding explanatory variables to the model • Forecasting 		
6. Other types of regression <ul style="list-style-type: none"> • Models that reduce to the simple linear model • Choosing the best model • Models reduced to multiple linear model • Least squares method with restrictions 	interactive discussion	1 seminar
7. Least-Squares Trend Fitting and Forecasting <ul style="list-style-type: none"> • The Linear Trend Model • The Quadric Trend Model • The exponential Trend Model • Model Selection • The principle of parsimony 	interactive discussion	1 seminar
8. Time series forecasting of seasonal data <ul style="list-style-type: none"> • Least square forecasting with monthly or quarterly data 	interactive discussion	1 seminar
9. Regression on dummy explanatory variables <ul style="list-style-type: none"> • ANOVA models • ANCOVA models 	interactive discussion	1 seminar
10. Logit and probit models	interactive discussion	1 seminar
11. Dynamic economic models <ul style="list-style-type: none"> • Autoregressive models • Distributed lag models 	interactive discussion	1 seminar
12. Autocorrelation <ul style="list-style-type: none"> • The nature of autocorrelation • Consequences of autocorrelation • Detection of autocorrelation • Remedial measures 	interactive discussion	1 seminar
13. Models with simultaneous equations <ul style="list-style-type: none"> • Estimating models with simultaneous equations • The problem of identification 	interactive discussion	1 seminar
14. Review and Project Presentation	interactive discussion	1 seminar
Bibliography: <ol style="list-style-type: none"> 1. Bereson, M.L., Levine, D.M., Krehbiel, T.C., Basic Business Statistics, Pearson, Prentice Hall, NJ, 2009. 2. Gujarati, D., Porter, D.C., Basic Econometrics. New York: McGraw-Hill, 2009 3. Ruud, P.A., Classical Econometric Theory, Oxford University Press, 2000. 4. Wooldridge, J.M., Introductory Econometrics, South-Western College Publishing, 2000. 5. Reader_Forecasting_2025_2026 (Course's Teams class) 		



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 course content is in correspondence with what is done in other universities in the country and abroad.
- To meet the market demands of the contents, meetings were held with representatives of the business community.

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	<ul style="list-style-type: none"> • correct logical and coherent application of the concepts learned • logical and accurate explanation and interpretation of the results; 	Final Exam (during the exam session)	50%
10.5 Seminar/laboratory	<ul style="list-style-type: none"> • the ability to apply concepts learned in practice • correct logical and coherent application of the concepts learned • economic explanation of the results 	Project (during the semester)	30% (20% project+10% presentation)
	<ul style="list-style-type: none"> • interest in individual preparation throughout the whole semester 	solving tasks (during the semester)	20%
10.6 Minimum standard of performance			
For the minimum grade (5), students must			
<ul style="list-style-type: none"> • Knowledge of the fundamental concepts and their applicate examples. • The economic interpretation of the results. 			

11. Labels ODD (Sustainable Development Goals)¹

N/A

Date:
13.03.2025

Signature of course coordinator
Ioan Cristian CHIFU, PhD

Signature of seminar coordinator
Ioan Cristian CHIFU, PhD

Date of approval:
10.04.2025

Signature of the head of department
Ioan Cristian CHIFU, PhD

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.”.