

**Ministry of Higher Education and Scientific Research**

**Scientific Supervision and Scientific Evaluation Apparatus**

**Directorate of Quality Assurance and Academic Accreditation**

**Accreditation Department**

**Academic Program and Course Description Guide Academic Program and Course Description Guide**

**Academic Program and Course Description Guide**

**2024**

**Introduction:**

The educational program is a well-planned set of courses that include procedures and experiences arranged in the form of an academic syllabus. Its main goal is to improve and build graduates' skills so they are ready for the job market. The program is reviewed and evaluated every year through internal or external audit procedures and programs like the External Examiner Program.

The academic program description is a short summary of the main features of the program and its courses. It shows what skills students are working to develop based on the program's goals. This description is very important because it is the main part of getting the program accredited, and it is written by the teaching staff together under the supervision of scientific committees in the scientific departments.

This guide, in its second version, includes a description of the academic program after updating the subjects and paragraphs of the previous guide in light of the updates and developments of the educational system in Iraq, which included the description of the academic program in its traditional form (annual, quarterly), as well as the adoption of the academic program description circulated according to the letter of the Department of Studies T 3/2906 on 3/5/2023 regarding the programs that adopt the Bologna Process as the basis for their work.

In this regard, we can only emphasize the importance of writing an academic programs and course description to ensure the proper functioning of the educational process.

**Concepts and terminology:**

**Academic Program Description**: The academic program description provides a brief summary of its vision, mission and objectives, including an accurate description of the targeted learning outcomes according to specific learning strategies.

**Course Description**: Provides a brief summary of the most important characteristics of the course and the learning outcomes expected of the students to achieve, proving whether they have made the most of the available learning opportunities. It is derived from the program description.

**Program Vision:** An ambitious picture for the future of the academic program to be sophisticated, inspiring, stimulating, realistic and applicable.

**Program Mission:** Briefly outlines the objectives and activities necessary to achieve them and defines the program's development paths and directions.

**Program Objectives:** They are statements that describe what the academic program intends to achieve within a specific period of time and are measurable and observable.

**Curriculum Structure:** All courses / subjects included in the academic program according to the approved learning system (quarterly, annual, Bologna Process) whether it is a requirement (ministry, university, college and scientific department) with the number of credit hours.

**Learning Outcomes:** A compatible set of knowledge, skills and values acquired by students after the successful completion of the academic program and must determine the learning outcomes of each course in a way that achieves the objectives of the program.

**Teaching and learning strategies:** They are the strategies used by the faculty members to develop students’ teaching and learning, and they are plans that are followed to reach the learning goals. They describe all classroom and extra-curricular activities to achieve the learning outcomes of the program.

**Academic Program Description Form**

**University Name: Basrah**

**Faculty/Institute: College of Administration and Economics**

**Scientific Department: Statistics**

**Academic or Professional Program Name: Bachelor's degree in Statistics.**

**Final Certificate Name: Bachelor's degree in Statistics.**

**Academic System: semester**

**Description Preparation Date: 22/2/2024**

**File Completion Date: 22/2/2024**

**Signature:**

**Head of Department Name:**

**Prof. Dr. Bahaa abdul Razaq Kasiem**

**Date:**

**Signature:**

**Scientific Associate Name:**

**Assis Prof. Dr. Ammar Yousif Dhicher**

**Date:**

**The file is checked by:**

**Department of Quality Assurance and University Performance**

**Director of the Quality Assurance and University Performance Department:**

**Date:**

**Signature:**

**Approval of the Dean**

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| 1. **Program Vision** |
| The College of Administration and Economics at the University of Basra aspires to be among the ranks of distinguished colleges globally in the economic, administrative, accounting, statistical and financial fields and to be distinguished scientifically and administratively and in the quality of service it provides to society and stakeholders at the national, Arab and international levels and to be committed to the academic professional culture among the ranks of academics and employees. In addition to pursuing development prospects in the university academic aspects (education, research, and service). |

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| 1. **Program Mission** |
| The College of Administration and Economics at the University of Basra seeks to provide the best service to the community and parties that exchange interests and benefits with it, and with the university through accurate diagnosis of their current and future needs and achieving an effective and efficient response to these needs and expectations by ensuring the quality of all university operations and practices (educational, research, advisory, and administrative) according to the following:   1. The best investment of the college’s resources and energies through effective commitment to implementing the provisions of the quality assurance and academic accreditation system. 2. Improving the performance of human resources (academic and functional) through participation in specialized and advanced teaching and development courses inside and outside the country. 3. 3. Preparing plans and programs that include using the resources (material, financial, and technical) available to the college to improve the college’s overall performance. |

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| 1. **Program Objectives** |
| The College of Administration and Economics at the University of Basra seeks to provide the best service to the community and parties that exchange interests and benefits with it, and with the university through accurate diagnosis of their current and future needs and achieving an effective and efficient response to these needs and expectations by ensuring the quality of all university operations and practices (educational, research, advisory, and administrative) according to the following:   1. The best investment of the college’s resources and energies through effective commitment to implementing the provisions of the quality assurance and academic accreditation system. 2. Improving the performance of human resources (academic and functional) through participation in specialized and advanced teaching and development courses inside and outside the country 3. Preparing plans and programs that include using the resources (material, financial, and technical) available to the college to improve the college’s overall performance. |

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| 1. **Program Accreditation** |
| **none** |

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| 1. **Other external influences** |
| **none** |

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| 1. **Program Structure** | | | | |
| **Program Structure** | **Number of Courses** | **Credit hours** | **Percentage** | **Reviews\*** |
| **Institution Requirements** | **none** |  | **none** |  |
| **College Requirements** | **none** |  | **none** |  |
| **Department Requirements** |  |  |  |  |
| **Summer Training** |  |  |  |  |
| **Other** | **Time series2–Semester2** | **3** | **97%** |  |

\* This can include notes whether the course is basic or optional.

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| 1. **Program Description** | | | | |
| **Year/Level** | **Course Code** | **Course Name** | **Credit Hours** | |
| **theoretical** | **practical** |
| **2023-2024/ The**  **Fourth stage** |  | **Time Series2** | **2** | **-** |

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| 1. **Expected learning outcomes of the program** |
| **knowledge** |
| The course aims to forecast using exponential smoothing methods, learn about the stability of time series, test the stability of time series using drawing as well as using autocorrelation and partial autocorrelation functions as well as other statistical tests, transform data and take differences in the case of instability of time series, stages of forecasting using the Box method. Jenkins for time series, using the initial estimation method with moments and the maximum likelihood method, comparing models for prediction.. |
| **Skills** |
| The ability to apply quantitative methods in many important fields for the purpose of developing solutions to the problems that the researcher encounters during the process of conducting the experiment, as well as familiarity with the most important applied statistical programs such as Eview and others. |
| **Ethics** |
| Developing the student’s academic personality in the field of mathematical statistics so that he has the ability to think, analyze, and make decisions regarding statistical and non-statistical issues. |

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| 1. **Teaching and Learning Strategies** |
| 1. Adopting the theoretical basis and providing the student with all the vocabulary of the curriculum.  2. Adopting the discussion method by presenting some ideas during the lecture so that it develops the student’s ability to understand the topic directly.  3. Providing applied examples through digital examples that simulate the topics covered in theory so that the student’s knowledge picture is complete in theory and practice.  4. Adopting the immediate examination method (written and analytical) to develop the spirit of competition among students.  5. Adopting the assignment method after completing any topic within the specified academic vocabulary |

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| 1. **Evaluation methods** |
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| 1. **Faculty** | | | | | | |
| **Faculty Members** | | | | | | |
| **Academic Rank** | **Specialization** | | **Special Requirements/Skills (if applicable)** | | **Number of the teaching staff** | |
| **General** | **Special** | **Knowledge and understanding of the course topics and the ability to apply them by adopting statistical programs** | | **Staff** | **Assistant Professor** |
| Assistant Professor | Statistics | Applied Statistics |  |  | A permanent Staff |  |

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| **Professional Development** |
| **Mentoring new faculty members** |
| Briefly describes the process used to mentor new, visiting, full-time, and part-time faculty at the institution and department level. |
| **Professional development of faculty members** |
| Briefly describe the academic and professional development plan and arrangements for faculty such as teaching and learning strategies, assessment of learning outcomes, professional development, etc. |

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| 1. **Acceptance Criterion** |
| (Setting regulations related to enrollment in the college or institute, whether central admission or others) |

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| 1. **The most important sources of information about the program** |
| Chains and record numbers /Dr. Abdul Latif Hassan Shoman and Dr. Nizar Mustafa Al-Sarraf |
| Time series Analysis/ James D. Hamilton |
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| 1. Program Development Plan |
| The possibility of making the student have the ability to apply time series analysis in the field by collecting data and then using statistical programs to derive results and make decisions. |

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| **Program Skills Outline** | | | | | | | | | | | | | | | |
|  | | | | **Required program Learning outcomes** | | | | | | | | | | | |
| **Year/Level** | **Course Code** | **Course Name** | **Basic or optional** | **Knowledge** | | | | **Skills** | | | | **Ethics** | | | |
| **A1** | **A2** | **A3** | **A4** | **B1** | **B2** | **B3** | **B4** | **C1** | **C2** | **C3** | **C4** |
| **2023-2024** |  | **Time Series** | **Basic** |  |  |  |  |  |  |  |  |  |  |  |  |
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* **Please tick the boxes corresponding to the individual program learning outcomes under evaluation.**

**Course Description Form**

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| 1. Course Name: Time Series 1 | | | | | | | |
| Exponential smoothing methods in forecasting. The concept of stability of time series, types of stability, autocorrelation function and partial autocorrelation function, tests of stability of time series, transformation and taking of variances of data, stages of using the Box-Jenkins method, methods of estimating Box-Jenkins models, comparison between models. | | | | | | | |
| 1. Course Code: | | | | | | | |
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| 1. Semester / Year: | | | | | | | |
| 2023-2024 | | | | | | | |
| 1. Description Preparation Date: | | | | | | | |
| 22-2-2024 | | | | | | | |
| 1. Available Attendance Forms: | | | | | | | |
| Semesters - Semesters 2 | | | | | | | |
| 1. Number of Credit Hours (Total) / Number of Units (Total) | | | | | | | |
| 30 and 2 unite | | | | | | | |
| 1. Course administrator's name (mention all, if more than one name) | | | | | | | |
| Name: Assis Prof. Dr Raissan A. Zalan  Email: [ressan.zalan@uobasrah.edu.iq](mailto:ressan.zalan@uobasrah.edu.iq) | | | | | | | |
| 1. Course Objectives | | | | | | | |
|  | | | | | * + **Building students’ cognitive abilities on the importance of time series methods, methods of analyzing them, and the importance of their broad applications, especially in forecasting.**   + **Enabling students to use time series tools and apply them to find solutions to many problems in all fields** | | |
| 1. Teaching and Learning Strategies | | | | | | | |
| 1. **Presenting the concepts, methods and areas of their application within the financial, banking and general reality.** 2. **Brainstorming education strategy.** 3. **Teaching strategy by adopting direct discussion in the classroom**. | | | | | | | |
| 1. Course Structure | | | | | | | |
| **Week** | **Hours** | **Required Learning Outcomes** | **Unit or subject name** | | | **Learning method** | **Evaluation method** |
| 1 | 3 | Adopting the discussion method by presenting some ideas during the lecture so that it develops the student’s ability to understand the topic directly.  • Providing applied examples through digital examples that simulate the topics covered in theory so that the student’s knowledge picture is complete theoretically and practically.  • Adopting the immediate examination method (written and analytical) to develop the spirit of competition among students | Double exponential smoothing (Brown's method), Double exponential smoothing (Holt's method) | | | In classrooms | Daily exams, direct discussion questions and monthly exams |
| 2 | 3 | Triple exponential smoothing (Winter seasonal method), case studies using the computer | | |
| 3 | 3 | Stability in mean and variance | | |
| 4 | 3 | Transformations on data, autocorrelation function and partial autocorrelation | | |
| 5 | 3 | Box-Jenkins method in time series analysis | | |
| 6 | 3 | Stages of building the Box-Jenkins model and diagnosis | | |
| 7 | 3 | Using autocorrelation and partial autocorrelation functions to diagnose the Box-Jenkins model | | |
| 8 | 3 | Appreciation | | |
| 9 | 3 | Using the initial estimation method with moments and the maximum potential method | | |
| 10 | 3 | Check model fit | | |
| 11 | 3 | Use the Box-Price test and the Gun-Box and Dickey-Fuller tests to determine the stability of the series | | |
| 12 | 3 | Forecasting | | |  |
| 13 | 3 | Case studies using computers | | |  |
| 14 | 3 | Case studies using computers | | |  |
| 15 | 3 | Final class exam | | |  |
| 1. Course Evaluation | | | | | | | |
| 25 marks for the first month’s exam, including (20) marks for the monthly exam and (5) marks for daily activities  25 marks for the second month’s exam, including (20) marks for the monthly exam and (5) marks for daily activities.  Final pursuit score (50) marks | | | | | | | |
| 1. Learning and Teaching Resources | | | | | | | |
| Chains and record numbers | | | | **Dr. Abdul Latif Hassan Shoman and Dr. Nizar Mustafa Al-Sarraf** | | | |
| Time series Analysis | | | | **James D. Hamilton** | | | |
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