

## حامعة الزيتونة الأردنية Al-Zaytoonah University of Jordan

كلية الاعمال **Faculty of Business** 

قسم نظم المعلومات الإداربة



" عراقة وجودة" **Tradition and Quality** 

"Entrepreneurship and Innovation

in Business"

| Brief course description- Course Plan Development and Updating Procedures<br>Management Information Systems Department |                    |                       | QF05/0409-3.0E   |    |   |
|--|--------------------|-----------------------|--|----|---|
| Faculty  | Business           | Academic Department   | Management Informa<br>Systems/Masters o<br>Business Analytic | of | Number of the<br>course plan<br>(2021-2022) |
| Number of major<br>requirement<br>courses  | 18 credit<br>hours | Date of plan approval | 23/8/2021  |    | (2021-2022)                                 |

This form is just for the Major requirement courses

| Course number  | Credit hours     | Title of the course                                      | Prerequisite-   |  |
|--|------------------|--|-----------------|--|
|  |                  |  | co-requisite    |  |
| 0501700  | 3                | Applied Statistical Modelling for Business               |                 |  |
| This is a postgrad   | luate advanced   | course in applied statistical modelling designed to equi | p students with |  |
| highly sought after employability skills in data analysis. The course will cover a wide range of statistical |                  |  |                 |  |
| models including a revision of introductory statistics, linear regression, logistic regression, multinomial  |                  |  |                 |  |
| logistic regression, log-linear models, models for rates (Poisson regression), and ordinal logistic          |                  |  |                 |  |
| regression. Some theory behind the methods will be covered, although the emphasis is on the practical        |                  |  |                 |  |
| application of these methods using statistical software. In this respect, students will be introduced to the |                  |  |                 |  |
| statistical softwar  | e of their choic | e as: Stata, SPSS or R.                                  |                 |  |

| Course number   | Credit hours | Title of the course         | Prerequisite-<br>co-requisite |  |
|---|--------------|-----------------------------|-------------------------------|--|
| 0506711   | 3            | Advanced Business Analytics | 1                             |  |
| This service sizes to provide students with a concred introduction to the concents and principles of data |              |                             |                               |  |

This course aims to provide students with a general introduction to the concepts and principles of data analytics and exploration. It also aims to teach students basic concepts to explore and analyze relationships and knowledge extracted from structured or unstructured data. Review the analysis, data and convert it into useful information to extract knowledge from it. The topics raised are methods of statistical regression analysis, data classification, forecasting methods, relationships between data, data collection, discovery of extreme values, and processing and managing data. Also, this course Introduce the basic concepts and modern technology in giant or big data management including organizing, managing, controlling huge amounts of organized and unstructured data. In addition, this course including storage systems (Hadoop), methods for processing large amounts of data (cartographic data reduction, data compression), database systems (relational database systems), integrating Hadoop with statistical programs such as SAS.

| Course number  | Credit hours     | Title of the course                                      | Prerequisite-    |
|--|------------------|--|------------------|
|  |                  |  | co-requisite     |
| 0506712  | 3                | <b>Business Intelligence Systems</b>                     |                  |
| This course will   | examine Busin    | less Intelligence (BI) technologies that help a company  | to improve its   |
| business. It discusses BI topics from both managerial and technical perspectives. Managerial               |                  |  |                  |
| perspectives discuss how BI affects the organization's decision-making process, while technical            |                  |  |                  |
| perspectives discuss the foundation for an intelligent system. The course will discuss key issues starting |                  |  |                  |
| from BI as a process and architecture, Warehousing, Online Analytical Processing, Data Mining,             |                  |  |                  |
| different data mining algorithms such as decision tress, KNN and K-means, Association rules and            |                  |  |                  |
| Neural Networks  | ). Practical exe | rcises and projects will be assigned to enhance students | s' experience in |



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business intelligent systems.

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|---|--|--|------------------|
|   |  |  | co-requisite     |
| 0506713   | 3  | <b>Big Data for Business</b>                             |                  |
| This block cour   | rse provides a   | basic introduction to big data and correspondir          | ng quantitative  |
| research methods  | s. The objective o   | f the course is to familiarize students with big data ar | alysis as a tool |
| for addressing su   | bstantive research   | n questions. The course begins with a basic introduct    | tion to big data |
| and discusses wh  | at the analysis of   | f these data entails, as well as associated technical,   | conceptual and   |
| -   | -  | mitations of big data research are discussed in dep      | -                |
| world examples.   | Students then en   | ngage in case study exercises in which small grou        | ips of students  |
| develop and pre-  | develop and present a big data concept for a specific real-world case. This includes practical |  |                  |
| exercises to familiarize students with the format of big data. It also provides a first hands-on experience |  |  |                  |
| in handling and analyzing large, complex data structures. The block course is designed as a primer for      |  |  |                  |
| anyone interested   | in attaining a bas   | ic understanding of what big data analysis entails.      |                  |

| Course number   | Credit hours  | Title of the course                     | Prerequisite- |  |  |
|---|---|---|---------------|--|--|
|   |   |   | co-requisite  |  |  |
| 0506721   | 3   | <b>Decision Analysis &amp; Modeling</b> |               |  |  |
| This course help  | This course helps students learn to integrate personal judgment and intuition in realistic business |   |               |  |  |
| situations with the most widely applicable methodologies of decision and risk analysis, probability and |   |   |               |  |  |
| statistics, competitive analysis, and management science. Topics include an introduction to decision    |   |   |               |  |  |
| analysis and modelling; spreadsheet engineering and error reduction; framing decision analysis          |   |   |               |  |  |
| problems; framework for analyzing risk; data analysis; resource allocation with optimization models;    |   |   |               |  |  |
| multi-period deterministic models; multi-factor deterministic models; regression modelling; strategic   |   |   |               |  |  |
| interactive decision  | ons; and interpre   | ting models, data, and decisions.       |               |  |  |

| Course number  | Credit hours | Title of the course                   | Prerequisite- |
|--|--------------|---------------------------------------|---------------|
|  |              |                                       | co-requisite  |
| 0506722  | 3            | Data Mining for Business Applications |               |
| The course is an advanced course in data mining. The course provides knowledge to address various          |              |                                       |               |
| data science problems and datasets. Focus lies on advanced machine learning techniques for                 |              |                                       |               |
| classification, regression, clustering, and anomaly detection, for example decision trees, random forests, |              |                                       |               |
| neural networks, including Support Vector Machines and Deep Learning, Expectation Maximization             |              |                                       |               |
| (EM), Markov models, and Bayesian networks.  |              |                                       |               |

| Course number  | Credit hours   | Title of the course                                   | Prerequisite-   |
|--|----------------|---|-----------------|
|  |                |   | co-requisite    |
| 0506727  | 3              | Information Resources Management                      |                 |
| This course reviews the theoretical background of Enterprise systems, their principles, tools, and           |                |   |                 |
| modern practices in their application and use. The course includes the following axes: an introduction to    |                |   |                 |
| Enterprise systems and their definition, the structure and architecture of these systems, the process of     |                |   |                 |
| integrating multiple applications in enterprises and their integration in order to achieve the objectives of |                |   |                 |
| the enterprise, ty   | pes of institu | tional systems or Enterprise systems, including enter | prise resources |



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planning systems, customer relationship management systems, supply chain management systems and other systems. The course also includes a review of the life cycle of these systems from development and implementation to use and evaluation.

| Course number  | Credit hours       | Title of the course                                      | Prerequisite-   |
|--|--------------------|--|-----------------|
|  |                    |  | co-requisite    |
| 0506724  | 3                  | Advanced Statistical Analysis for Business               |                 |
| The course prese   | ents basic quant   | itative methods; the main goal is to provide a basic     | c foundation of |
| statistical methods to students with different education backgrounds and work experiences. The           |                    |  |                 |
| sequence of the topics is slightly different than the one presented in standard textbooks; we put more   |                    |  |                 |
| emphasis on inference and regression. The course starts with a brief refresher of college-level calculus |                    |  |                 |
| and the graphical and quantitative analysis of sample data. Basic probability theory and several models  |                    |  |                 |
| for random variables (discrete uniform, Bernoulli, binomial, and normal) are covered in depth. The       |                    |  |                 |
| sequence conclud   | es with estimation | on and hypothesis testing, before introducing regression | 1.              |

| Course number   | Credit hours  | Title of the course                                       | Prerequisite-     |
|---|---|---|-------------------|
|   |   |   | co-requisite      |
| 0506728   | 3   | Practical Project in Business Analysis                    |                   |
| In this course, in  | line with the   | Project Management Body Of Knowledge guideline            | s issued by the   |
| Project Managemen   | nt Institute, we  | introduce the project management life cycle and we co     | ompare selected   |
| state-of-the-art life   | e cycle model   | s for effective project management, such as tradition     | onal, agile and   |
| extreme project m   | anagement. St   | udents will engage in a small sized project and de        | velop hands-on    |
| experience of man   | aging a proje   | ct life cycle. In addition, they will develop team m      | anagement and     |
| leadership skills. I  | in this course,   | we introduce the project management life cycle and        | nd we compare     |
| selected state-of-th  | e-art life cycle  | e models for effective project management, such as t      | raditional, agile |
| and extreme project   | t management  | ; we also introduce selected state-of-the-art tools for e | effective project |
| management, such  | as PERT and   | CPM. We also provide an overview of business an           | alysis activities |
| throughout the life   | throughout the life of a project such as stakeholder analysis, requirement analysis, risk analysis, |   |                   |
| business process and data analysis, implementation, validation, deployment and assessment. For these,   |   |   |                   |
| we introduce a toolbox of selected state-of-the-art business analysis tools such as mind maps, use case |   |   |                   |
| diagrams, business  | process diagra  | ms etc.   |                   |

| Approved by<br>department council | Dr. Enas Musa Allozi | Date of approval |  |
|-----------------------------------|----------------------|------------------|--|
| 1                                 |                      |                  |  |