

«Затверджую»

Завідувач кафедри управління проектами

_____ /д.т.н., проф. Сергій БУШУЄВ/

«_30_»_04_2024 р.

Розробник силабусу

_____ /д.т.н., проф. Сергій БУШУЄВ /



Syllabus

Business Analysis and Decision Making

назва освітньої компоненти (дисципліни)

1) Шифр за ОП: ВК 6					
2) Навчальний рік: 2024/2025					
3) Освітній рівень: другий рівень вищої освіти (магістр)					
4) Форма навчання: денна/заочна					
5) Галузь знань: 07 «Управління та адміністрування»					
6) Спеціальність, назва освітньої програми: 073 «Менеджмент» ОП «Управління проектами»					
8) Компонента спеціальності: вибіркова					
9) Семестр: 2					
10) Цикл дисципліни: вибіркова компонента ОП					
11) Контактні дані викладача: д.т.н., проф. Сергій БУШУЄВ, Sbushuyev@ukr.net, (044) 245-48-57					
12) Language: English					
Денна форма					
	Лекції	Практичне заняття	Лабораторні заняття	Курсовий проект/ курсова робота РГР/Контрольна робота	Самостійні робота здобувача
	30	30	-	РГР	120
	Заочна форма				
	Лекції	Практичне заняття	Лабораторні заняття	Курсовий проект/ курсова робота РГР/Контрольна робота	Самостійні робота здобувача
	4	24	-	РГР	152

Денна форма

Кількість (кредитів ECTS) – 180(6)

Кількість годин (кредитів ECTS) аудиторного навантаження -60(2)

Заочна форма

Кількість (кредитів ECTS) – 180(6)

Кількість годин (кредитів ECTS) аудиторного навантаження -28(1.8)

13) Prerequisites: "Fundamentals of project-type management", "Strategic management, theory of systems and decision-making in the organization", "Theory and practice of business planning, expertise and audit of projects", "Generation of business ideas: creative technologies, startups"

14) Module goals: This course provides students with the essential knowledge and skills to effectively analyze business problems, make informed decisions, and drive organizational success. Students will learn to use various analytical tools and techniques to assess business opportunities, evaluate risks, and develop effective strategies.

15) Learning Outcomes:

Upon completion of this course, students will be able to:

- Apply various analytical tools and techniques to assess business problems and opportunities.
- Evaluate the financial and non-financial implications of business decisions.
- Develop and implement effective business strategies.
- Communicate complex analytical findings clearly and concisely.

Work effectively in teams to solve business problems.

Course Content. Lectures:

- 1. Introduction to Business Analysis**
 - Definition of business analysis
 - The role of business analysis in organizations
 - Business analysis process
- 2. Data Collection and Analysis**
 - Data collection methods (surveys, interviews, observations)
 - Data cleaning and preparation
 - Descriptive statistics
 - Inferential statistics
 - Data visualization
- 3. Financial Analysis**
 - Financial ratios and their interpretation
 - Cost-benefit analysis
 - Discounted cash flow analysis

- Capital budgeting techniques
- 4. **Strategic Analysis**
 - SWOT analysis
 - PEST analysis
 - Porter's Five Forces analysis
 - Scenario planning
- 5. **Decision Making**
 - Decision-making frameworks (e.g., rational decision-making, bounded rationality)
 - Decision trees
 - Game theory
 - Risk assessment and management
- 6. **Business Modeling**
 - Business process modeling
 - Data modeling
 - System analysis and design

Exercises for Business Analysts and Decision Making

Case Studies

1. **Company Expansion:** A company is considering expanding into a new market. Analyze the potential risks and rewards, conduct a market analysis, and develop a business plan.
2. **Product Launch:** A company is about to launch a new product. Conduct a SWOT analysis, assess the competitive landscape, and develop a marketing strategy.
3. **Process Improvement:** Identify inefficiencies in a company's operations and propose solutions to improve efficiency and reduce costs.
4. **Merger and Acquisition:** Analyze the potential benefits and risks of a proposed merger or acquisition.
5. **Risk Management:** Assess the risks facing a company and develop strategies to mitigate them.

Decision-Making Exercises

1. **Decision Tree Analysis:** Create a decision tree to evaluate different options for a business decision.
2. **Game Theory:** Analyze a business situation using game theory to understand the interactions between different players.
3. **Cost-Benefit Analysis:** Conduct a cost-benefit analysis to evaluate the financial implications of a business decision.
4. **Scenario Planning:** Develop different scenarios for the future and assess the potential impact of each on the business.
5. **Negotiation Exercise:** Practice negotiation skills in a simulated business environment.

Data Analysis Exercises

1. **Data Cleaning and Preparation:** Clean and prepare a dataset for analysis.
2. **Descriptive Statistics:** Calculate descriptive statistics for a dataset and interpret the results.
3. **Hypothesis Testing:** Test hypotheses using statistical methods.
4. **Regression Analysis:** Build and interpret regression models to analyze relationships between variables.
5. **Data Visualization:** Create visualizations (e.g., charts, graphs) to present data effectively.

Group Exercises

1. **Brainstorming:** Generate ideas for a new product or service.
2. **Role-Playing:** Simulate business situations and practice decision-making skills.
3. **Debates:** Debate the pros and cons of different business decisions.
4. **Case Study Competitions:** Compete in teams to analyze and solve business cases.

Additional Exercises

1. **Financial Modeling:** Create financial models to forecast future performance.
2. **Market Research:** Conduct market research to gather information about customers, competitors, and trends.
3. **Process Mapping:** Map out business processes to identify areas for improvement.
4. **Data Mining:** Use data mining techniques to discover patterns and insights in large datasets.
5. **Ethical Decision Making:** Analyze ethical dilemmas in business and develop strategies for ethical decision-making.

Individual Tasks in Business Analysis and Decision Making

Business analysts play a crucial role in organizations by providing insights, recommendations, and solutions to complex business problems. Their individual tasks often involve a combination of analytical, strategic, and communication skills. Here are some common individual tasks that business analysts undertake:

Analytical Tasks

- **Data Collection and Analysis:** Gathering, cleaning, and analyzing data from various sources to identify trends, patterns, and insights.
- **Problem Identification:** Identifying and defining business problems or opportunities.
- **Root Cause Analysis:** Determining the underlying causes of issues or problems.
- **Process Analysis:** Analyzing existing business processes to identify inefficiencies and areas for improvement.
- **Financial Analysis:** Conducting financial analysis to assess the financial implications of business decisions.
- **Market Analysis:** Analyzing market trends, competitor activities, and customer needs.

Strategic Tasks

- **Business Strategy Development:** Developing and implementing business strategies aligned with organizational goals.
- **Risk Assessment:** Identifying and evaluating potential risks associated with business decisions.
- **Scenario Planning:** Developing and analyzing different future scenarios to prepare for uncertainties.
- **Change Management:** Leading and managing organizational change initiatives.

Communication and Collaboration Tasks

- **Stakeholder Engagement:** Identifying and engaging with key stakeholders to gather requirements and ensure buy-in.
- **Requirements Gathering:** Eliciting, analyzing, documenting, and validating business requirements.
- **Solution Design:** Designing and documenting solutions to address business problems.

- **Communication:** Effectively communicating findings, recommendations, and solutions to stakeholders at all levels.
- **Teamwork:** Collaborating with cross-functional teams to achieve business objectives.

Additional Tasks

- **Business Case Development:** Preparing business cases to justify investments and decisions.
- **Project Management:** Managing business analysis projects, including planning, execution, and monitoring progress.
- **Knowledge Management:** Developing and maintaining knowledge repositories.
- **Process Improvement:** Identifying and implementing process improvements to enhance efficiency and effectiveness.
- **Performance Measurement:** Developing and tracking key performance indicators (KPIs) to measure business success.

Assessment:

- Individual assignments (e.g., case studies, reports)
- Group projects (e.g., team presentations, simulations)
- Class participation and discussions
- Final exam

Questions for self-assessment

1. Business analysts A and B are working together on a project to develop a Learning Management System. Business analyst B has prepared the following requirements elicitation approach. What can Business analyst A's suggestion be to improve the requirements elicitation approach?
2. Business analyst C has completed documenting requirements for a Management Information Systems (MIS) project which would enable company B to track sales data, expenses and productivity levels. Which among the following options is a valid consideration for presenting the requirements to stakeholders?
3. BABoK V3 1.2- What is Business Analysis?
4. In Business analyst A's project, the same issues and clarifications have been asked repeatedly by different stakeholders. This is because
5. A land border crossing between two countries tries to balance the need to provide certain types of security with minimizing the time that customers must wait in lines to be inspected. Elements considered when planning such crossings include:
6. Business Analysts, A and B, were discussing requirements documentation for a very large project. Business analyst B would like to use a word processor to maintain the requirements. B is of the opinion that this would allow requirements to be available in a single location. What should be A's reaction?
7. Business analyst A is conducting a requirements workshop. A found that few stakeholders were quite silent during the workshop. What technique can A adopt to elicit requirements from all stakeholders?
8. Business analyst A has just finished a report that showed some problems in the business analysis work for the current project. Specifically, there were several variances from what A expected. What should A do to address the

variances?

9. Business analyst B does not feel the need to assess current performance. B is of the opinion that the new system is far more superior to the old one and stakeholders are anyway going to love the new application. What is the risk that B is running into?

10. Business analyst B uses hierarchical decomposition to break down B's business analysis deliverables into activities and tasks. B then adds the hours needed and can give an accurate estimate of the time needed to complete the BA work. What type of estimation has Business analyst B used?

11. Business analyst A conducted several interviews this week for a project. Several problems have come up. As many issues have come up, A's project manager suggested that A tracks the issues formally in an item tracker. Why?

12. Business analyst A has scheduled a focus group to determine the current attitudes towards a new product that the company is developing. Stakeholder S suggests using the Kano model. Another stakeholder R argues that the group should use the benchmarking approach. What should business analyst A do?

13. Business Analyst A is working on a project to automate several business processes. A just received confirmation of the budget and it is clear that there is enough money to either build an in-house solution or purchase a COTS package. What is the most logical next step for A?

14. A obtained signoff on requirements from three stakeholders; the sponsor, the project manager, and the product manager. The project management office rejected A's requirements for implementation due to insufficient signoffs. What should have A checked for?

15. Works as a business analyst for a project to introduce a new electronic gadget. Projects such as this have been lengthy, involved multiple stakeholders, and included thousands of requirements. When selecting a business analysis approach for the project, which of the following is A most likely to consider?

16. One particular stakeholder is adding unnecessary requirements and expectations into the go/no-go criteria. What should A's approach be before submitting the requirements package?

Reference:

1. A Guide to the Business Analysis Body of Knowledge (BABOK 3 Guide) International Institute of Business Analysis, Toronto, Ontario, Canada. ISBN-13: 978-0-9811292-2-8 (2019)
2. Brian Berenbach; Daniel Paulish; Juergen Katzmeier; Arnold Rudorfer (2009). Software & Systems Requirements Engineering: In Practice. New York: McGrawHill Professional. ISBN 978-0-07-160547-2.
3. Hay, David C. (2003). Requirements Analysis: From Business Views to Architecture (1st ed.). Upper Saddle River, NJ: Prentice Hall. ISBN 0-13-028228-6.
4. Laplante, Phil (2009). Requirements Engineering for Software and Systems (1st ed.). Redmond, WA: CRC Press. ISBN 978-1-4200-6467-4.
5. McConnell, Steve (1996). Rapid Development: Taming Wild Software Schedules (1st ed.). Redmond, WA: Microsoft Press. ISBN 1-55615-900-5.
6. Nuseibeh, B.; Easterbrook, S. (2000). Requirements engineering: a roadmap (PDF). ICSE'00. Proceedings of the conference on the future of Software engineering. pp. 35–46. CiteSeerX 10.1.1.131.3116. doi:10.1145/336512.336523. ISBN 1-58113-253-0.
7. Andrew Stellman & Jennifer Greene (2005). Applied Software Project Management. Cambridge, MA: O'Reilly Media. ISBN 0-596-00948-8.
8. Karl Wiegers & Joy Beatty (2013). Software Requirements (3rd ed.). Redmond,

WA: Microsoft Press. ISBN 978-0-7356-7966-5.

19) Система оцінювання навчальних досягнень (розподіл балів):

Поточне оцінювання		Підсумковий тест (залік)		Сума	
Модуль № 1	40	Модуль № 2	40	20	100

20) Умови допуску до підсумкового контролю: - відвідування лекцій; - виконання практичних робіт; - проходження тестування; - виконання РГР; - дотримання умов академічної доброчесності.

21) Політика щодо академічної доброчесності: розуміння здобувачами вищої освіти етичного кодексу університету та норм академічної доброчесності (вимог щодо оригінальності текстів та допустимого відсотку співпадінь)

22) Посилання на сторінку електронного навчально-методичного комплексу

<https://org2.knuba.edu.ua/course/view.php?id=3056>