

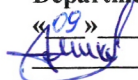
MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE

SUMY NATIONAL AGRARIAN UNIVERSITY

Management Department

«CONFIRMED»

**Head of the Management
Department**

«09» 06 2020
 (A.M. Mikhailov)

CURRICULUM (SYLABUS)

Innovation Management

Speciality: 073 “*Management*”

Educational program: Management (first level (bachelor) of higher education)

Faculty: *Economics and Management*

2020 – 2021 academic year

Curriculum of «Innovation Management» was worked out for the students by specialty 073 «Management»

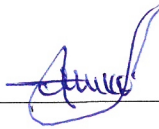
The working program is drawn up:

PhD, senior lecturer of the Management Department Mohylna L.M.


signature

Working curriculum was reviewed by the Management Department
Report «09» 06 2020 № 12

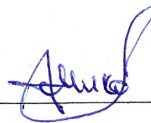
Head of the Management Department,
Doctor of Economics, Professor



(A.M. Mykhailov)

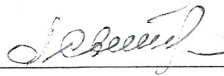
Coordinated by:

Guarantor of the educational program



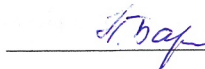
(A.M. Mykhailov)

Dean of Economics and
Management faculty



(N. I. Strochenko)

Methodist of department of quality
of education, licensing
and accreditation



(H. Boyar)

Registered in the electronic database: date: 14.07. 2020 y.

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1. Curriculum description

| Indicators | Branch of knowledge, training direction, qualification level | Characteristics of course | |
|--|--|----------------------------|----------------|
| | | full-time education | correspondence |
| Number of credits – <i>3,0</i> | | <i>Regulatory</i> | |
| Module – <i>2</i> | Speciality: 073 Management | Year of training: | |
| Content modules: <i>4</i> | | 2020-2021 | - |
| Individual scientific research task : abstracts | | course | |
| | | 3 | - |
| Total – <i>90 h</i> | | Semester | |
| | 6 | - | |
| Week classes for full day styding: classes – <i>2,9</i> individual – <i>3,0</i> | Educational degree: Bachelor | Lectures | |
| | | 30 h. | - |
| | | Practical, seminars | |
| | | 14 h. | - |
| | | Laboratory | |
| | | - | - |
| | | Independent work | |
| | | 46 h. | - |
| Individual tasks: | | | |
| Type of control: exam | | | |

Note.

Correlation of numbers of classes to independent and individual work is – 49/51
(44/46)

2. Objectives of the course

2.1 The purpose: provides: providing knowledge of the theoretical and methodological basis of the discipline and possession of tools for evaluating the innovative development of the enterprise, attracting investment in innovation, the formation of the market of scientific developments; ability to substantiate the innovative potential of the enterprise, to justify and implement effective management decisions for economic development on an innovative basis.

2.2. Tasks: study of the conceptual apparatus of the discipline; mastering the methodological foundations of the formation of organizational and economic mechanism of innovative development of the enterprise; study of theoretical bases and mastering of methodical approaches concerning a choice of directions of innovative development of the enterprise; evaluation of the effectiveness of the formation and use of the innovative potential of the enterprise; acquisition of skills to substantiate the directions of priority innovative development and alternative management decisions.

The study of the discipline “Innovation Management” involves the formation of students' competencies:

| № | Type of program competencies | Program competence | Code |
|---|-------------------------------|--|------|
| | General | | |
| 1 | | Ensuring reliability in teams and reliable use of interpersonal interaction in achieving professional goals. | GK 5 |
| | Professional (special) | | |
| 1 | | Ability to manage the organization and its departments through the implementation of management functions. | PK 4 |

2.3 Program learning outcomes

As a result of studying the discipline “Innovation Management” the student must be able to demonstrate the following learning outcomes:

| № | Program learning outcomes | Code |
|----|--|--------|
| 1 | Perform research individually and / or in a group under the guidance of a leader. | PLO 17 |
| 2. | Be able to use modern information technologies, blockchain technologies in the management of resources and databases to justify management decisions on the choice of innovative technologies in agricultural enterprises. | PLO 19 |

3. The program of the course

Approved by the Academic Council SNAU
Report «22.04.19» № 11

Semantic module 1. *Theoretical and methodological aspects of innovation*

Topic 1: Definition of the innovation and its genesis

Definition of the innovation and its classification. Innovations and economical growth. Genesis of innovation theories

Topic 2: Characteristic of the innovation process

Definition of the innovation process. Stages of the innovation process. Features of an innovation process for an organization.

Topic 3: Innovation activity as an object of the innovation management

Definition and stages of innovation activity. Estimation of the innovation potential of the enterprise. Methodology of the product innovation development. Design for innovation.

Topic 4: Governmental governance of innovation

The role of the government in the creating of mechanism for innovation management. Governmental innovation policy. Governmental control of the innovation policy

Topic 5: Management of innovation inside an organization

Main definition, methods and functions. Management of innovation development. Knowledge and innovation.

Semantic module 2. *The role and importance of the human factor for the development of innovation in the enterprises*

Topic 6: Management of innovation development

Marketing approach to development and implementation of innovations. Sources of the innovation ideas and its analysis

Topic 7: Personnel and the innovation management

Features of the personnel management in the innovation activity. Organization structure and the innovation process

Topic 8: Organization innovations as a basis of modern business

Definition of organization innovations. The most important innovations of the 20th century. Implementing Innovation in organizations.

Topic 9: Motivation and stimulation of innovation activity

Motivation mechanism of the innovation activity. Form and methods of stimulation of innovations

Semantic module 3. *Management of innovation projects*

Topic 10: Commercialization of innovation

The essence of commercialization of innovation. Intellectual property and its transformation into the innovative product. Innovation Strategy. Ways of commercialization of an intellectual property.

Topic 11: Innovation management project

Organization structure of the project management. The life cycle of innovation projects. Methods of project management.

Topic 12. Business plans of innovation projects

Definition of a business plan. Structure of a business plan. Risk analysis of the project

Semantic module 4. *Risk management and assessment criteria of economic efficiency of innovations*

Topic 13: Examination of innovative projects

Objectives and basic techniques of examination of innovative projects. Methods of choosing the best innovation project. Sources of Ideas for Organizations. Performance of the innovative projects.

Topic 14: Risk and innovation management

Basics of risk management. Risk classification. Methods of analysis of uncertainty and risk. Quantitative risk assessment

Topic 15: Evaluating the effectiveness of innovation management

Principles of estimation of effectiveness of innovation. Basic indicators of economic efficiency.

4. Structure of the course

| Titles the semantic modules and topics | Volume of hours | | | | | | | | | | | |
|--|---------------------|-----------|-----------|-----|------|-----------|----------------|-----------|-----|-----|------|----|
| | full-time education | | | | | | correspondence | | | | | |
| | Total | including | | | | | Total | including | | | | |
| L | | P | Lab | Ind | I.W. | L | | P | Lab | Ind | I.W. | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| Module 1. | | | | | | | | | | | | |
| Semantic module 1. Theoretical and methodological aspects of innovation | | | | | | | | | | | | |
| Topic 1: Definition of the innovation and its genesis | 8 | 2 | - | | | 6 | | | | | | |
| Topic 2: Characteristic of the innovation process | 4 | 2 | 2 | | | - | | | | | | |
| Topic 3: Innovation activity as an object of the innovation management | 8 | 2 | - | | | 6 | | | | | | |
| Topic 4: Governmental governance of innovation | 4 | 2 | 2 | | | - | | | | | | |
| Topic 5: Management of innovation inside an organization | 8 | 2 | - | | | 6 | | | | | | |
| Total for semantic module 1 | 32 | 10 | 4 | | | 18 | | | | | | |
| Semantic module 2. The role and importance of the human factor for the development of innovation in the enterprises | | | | | | | | | | | | |
| Topic 6: Management of innovation development | 10 | 2 | 2 | | | 6 | | | | | | |
| Topic 7: Personnel and the innovation management | 2 | 2 | - | | | - | | | | | | |
| Topic 8: Organization innovations as a basis of modern business | 2 | 2 | - | | | - | | | | | | |
| Topic 9: Motivation and stimulation of innovation activity | 4 | 2 | 2 | | | - | | | | | | |
| Total for semantic module 2 | 18 | 8 | 4 | | | 6 | | | | | | |
| Total hours | 50 | 18 | 8 | | | 24 | | | | | | |
| Module 2. | | | | | | | | | | | | |
| Semantic module 3. Management of innovation projects | | | | | | | | | | | | |
| Topic 10: Commercialization of innovation | 10 | 2 | 2 | | | 6 | | | | | | |
| Topic 11: Innovation management project | 8 | 2 | - | | | 6 | | | | | | |
| Topic 12: Business plans of innovation projects | 9 | 2 | 2 | | | 5 | | | | | | |
| Total for semantic module 3 | 27 | 6 | 4 | | | 17 | | | | | | |
| Semantic module 4. Risk management and assessment criteria of economic efficiency of innovations | | | | | | | | | | | | |
| Topic 13: Examination of innovative projects | 7 | 2 | - | | | 5 | | | | | | |
| Topic 14: Risk and innovation management | 2 | 2 | - | | | - | | | | | | |
| Topic 15: Evaluating the effectiveness of innovation management | 4 | 2 | 2 | | | - | | | | | | |
| Total for semantic module 4 | 13 | 6 | 2 | | | 5 | | | | | | |
| Total hours | 40 | 12 | 6 | | | 22 | | | | | | |
| Total hours for course | 90 | 30 | 14 | | | 46 | | | | | | |

5. Topics and plan lectures

| № | Topic name | Volume of hours |
|----|---|-----------------|
| 1 | Topic 1: Definition of the innovation and its genesis Plan 1. Definition of the innovation and its classification 2. Innovations and economical growth | 2 |
| 2 | Topic 2: Characteristic of the innovation process. Plan 1. Definition of the innovation process 2. Stages of the innovation process 3. Features of an innovation process for an organization | 2 |
| 3 | Topic 3: Innovation activity as an object of the innovation management Plan 1. Definition and stages of innovation activity 2. Estimation of the innovation potential of the enterprise 3. Methodology of the product innovation development | 2 |
| 4 | Topic 4: Governmental governance of innovation Plan 1. The role of the government in the creating of mechanism for innovation management 2. Governmental innovation policy 3. Governmental control of the innovation policy | 2 |
| 5 | Topic 5: Management of innovation inside an organization Plan 1. Main definition, methods and functions 2. Management of innovation development | 2 |
| 6 | Topic 6: Management of innovation development Plan 1. Marketing approach to development and implementation of innovations 2. Sources of the innovation ideas and its analysis | 2 |
| 7 | Topic 7: Personnel and the innovation management Plan 1. Features of the personnel management in the innovation activity 2. Organization structure and the innovation process | 2 |
| 8 | Topic 8: Organization innovations as a basis of modern business Plan 1. Definition of organization innovations 2. The most important innovations of the 20th century 3. Implementing Innovation in organizations | 2 |
| 9 | Topic 9: Motivation and stimulation of innovation activity Plan 1. Motivation mechanism of the innovation activity 2. Form and methods of stimulation of innovations | 2 |
| 10 | Topic 10: Commercialization of innovation Plan 1. The essence of commercialization of innovation. 2. Intellectual property and its transformation into the innovative product 3. Ways of commercialization of an intellectual property | 2 |
| 11 | Topic 11: Innovation management project | 2 |

| | | |
|----|--|-----------|
| | Plan 1. Organization structure of the project management 2. The life cycle of innovation projects 3. Methods of project management | |
| 12 | Topic 12: Business plans of innovation projects Plan 1. Definition of a business plan 2. Structure of a business plan 3. Risk analysis of the project | 2 |
| 13 | Topic 13: Examination of innovative projects Plan 1. Objectives and basic techniques of examination of innovative projects 2. Methods of choosing the best innovation project 3. Performance of the innovative projects | 2 |
| 14 | Topic 14: Risk and innovation management Plan 1. Basics of risk management 2. Risk classification 3. Methods of analysis of uncertainty and risk 4. Quantitative risk assessment | 2 |
| 15 | Topic 15: Evaluating the effectiveness of innovation management Plan 1. Principles of estimation of effectiveness of innovation 2. Basic indicators of economic efficiency | 2 |
| | Total | 30 |

6. Topics of practical Lessons

| № | Topic name | Volume of hours |
|---|--|-----------------|
| 1 | Topic 1: Characteristic of the innovation process | 2 |
| 2 | Topic 2: Governmental governance of innovation | 2 |
| 3 | Topic 3: Management of innovation development | 2 |
| 4 | Topic 4: Motivation and stimulation of innovation | 2 |
| 5 | Topic 5: Commercialization of innovation | 2 |
| 6 | Topic 6: Business plans of innovation projects | 2 |
| 7 | Topic 7: Evaluating the effectiveness of innovation management | 2 |
| | Total | 14 |

7. Independent work

| № | Topic name | Volume of hours |
|---|---|-----------------|
| 1 | Topic 1. Definition of the innovation and its genesis Plan 1. Genesis of innovation theories | 6 |
| 2 | Topic 2. Innovation activity as an object of the innovation management Plan 1. Design for Innovation | 6 |
| 3 | Topic 3. Management of innovation inside an organization Plan 1. Knowledge and innovation | 6 |
| 4 | Topic 4. Management of innovation development | 6 |

| | | |
|---|--|-----------|
| | Plan 1. Different Types of Innovation | |
| 5 | Topic 5. Commercialization of innovation Plan 1. Innovation Strategy | 6 |
| 6 | Topic 6. Innovation management project Plan 1. Innovation Processes | 6 |
| 7 | Topic 7. Business plans of innovation projects Plan 1. Culture of Innovation in Organizations | 5 |
| 8 | Topic 8. Examination of innovative projects Plan 1. Sources of Ideas for Organizations | 5 |
| | Total | 46 |

8. Individual tasks

1. Preparation of abstracts

Topics of Abstracts:

1. Technological innovation
2. Theories of innovation
3. Strategy and innovation
4. Economic justification and innovation
5. New processes and information technology
6. New products and new services
7. Managing future technologies
8. Individuals and the innovation process
9. The structure of innovations
10. Risk and innovation management
11. Methods of analysis of uncertainty and risk
12. Sources of the innovation ideas and its analysis
13. Governmental control of the innovation policy
14. Knowledge and innovation
15. Market as innovation input
16. Innovation marketing
17. Innovation circle - organizational factors
18. Human resources development in innovation management
19. Innovation management methods
20. Different sorts of corporate innovations

9. Teaching Methods

1. Teaching Methods for Knowledge:

- 1.1. Verbal: narrative, explanation, discussion (heuristic and reproductive), lecture, instruct, work with the book (read, transfer, discharge, scheduling, reviewing, summarizing, making tables, charts, reference compendia etc.).
- 1.2. Visual: demonstration, illustration.
- 1.3. Practical: Practical work, exercise, production practices.

2. Methods for studying the nature of the logic of knowledge.

- 2.1. Analytical

- 2.2. Synthesis
- 2.3. Inductive method
- 2.4. Deductive method
- 2.5. Traduktive method

3. Methods for studying the nature and level of independent mental activity of students.

- 3.1. Problem (problem-information)
- 3.2. Partly-search (heuristic)
- 3.3. Exploratory
- 3.4. Reproductive
- 3.5. Explanatory demonstration

4. Active learning methods - use of technical training, brainstorming, debates, roundtables, business and role-playing games, training, use of problem situations, self-knowledge, the use of educational tests and controlling the use of basic lectures)

5. Interactive learning technology - use of multimedia technologies, spreadsheets, case-study, kahoot, learning dialogue, cooperation Students (cooperation).

10. Methods of control

- 1. Rating control of a 100-point scale assessment ECTS
- 2. An intermediate control during the semester (interim certification)
- 3. Criteria assess of the current work of students:
 - The level of knowledge demonstrated in practical classes;
 - Active in the discussion of issues brought to the class;
 - Quick control during classes;
 - Self study topics in general or specific issues;
 - Perform analytical calculation tasks;
 - Writing essays;
 - Test results;
 - Writing assignments during the tests;
 - Production situations, cases and more.

11. Distribution points that get students

| Current testing and independent work | | | | | | | | | | | | | | | Total for module & I.W. | Attestation | Test | Total | |
|--------------------------------------|---|---|---|---|-------------------------|---|---|---|---------------------------|----|----|--------------------------|----|----|-------------------------|---------------|------|-------|-----|
| Semantic module 1 - 10 p | | | | | Semantic module 2 –10 p | | | | Semantic module 3 – -10 p | | | Semantic module 4 - 10 p | | | | | | | IW |
| T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | | 55 (40+15) | 15 | 30 | 100 |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 15 | | | | |
| 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | | | | | |

Evaluation (points, ECTS, national)

| Total points | ECTS | National rating | |
|--------------|-----------|-----------------------------|--|
| | | Exams, term paper, practice | credit |
| 90 – 100 | A | Excellent | passing |
| 82-89 | B | Good | |
| 75-81 | C | | |
| 69-74 | D | Satisfactory | |
| 60-68 | E | | |
| 35-59 | FX | Unsatisfactory | Not passing, but can have second attempt |
| 1-34 | F | Poor | Not passing, need add training |

12. Methodological literature

1. Stoyanets N.V., Mohylna L.M. «Innovation management». Synopsis of lectures for students of 3-year full-time training direction 073 «Management» level «Bachelor». Sumy 2018 year, 70 p.
2. Stoyanets N.V., Mohylna L.M. «Innovation management». Workbook for practical classes students for students 3-year full-time training direction 073 «Management» level "Bachelor". Sumy 2018 year, 39 p.
3. Stoyanets N.V., Mohylna L.M. «Innovation management». Guidelines for independent study courses for students 3-year full-time training direction 073 "Management" level "Bachelor". Sumy 2018 year, 22 p.
4. Educational and methodical materials based on the Moodle platform. URL: <https://cdn.snau.edu.ua/moodle/course/view.php?id=2416>

13. Suggested Reading

Basic

1. Donald F. Kuratko, Michael G. Goldsby, Jeffrey S. Hornsby. Corporate Innovation: Disruptive Thinking in Organizations. Publisher: Routledge, 2018. 380 p.
2. Jean Storlie, Mimi Sherlock. Once Upon an Innovation: Business Storytelling Techniques for Creative Problem Solving. Publisher: Beaver's Pond Press, 2020. 152 p.
3. Henry Chesbrough. Open Innovation Results: Going Beyond the Hype and Getting Down to Business. Publisher: OUP Oxford, 2019. 215 p.
4. Mark W. Johnson, Clayton M. Christensen, Henning Kagermann. HBR's 10 Must Reads on Business Model Innovation. Harvard Business Review Press, 2019, 176 p.
5. Matt Ridley. How Innovation Works: And Why It Flourishes in Freedom. Publisher: Harper, 2020. 416 p.
6. Melissa Schilling. Strategic Management of Technological Innovation. 2019, 325 p.
7. Lawton Robert Burn. The Business of Healthcare Innovation. Publisher: Cambridge University Press, 2020. 516 p.
8. Patrick Dawson, Costas Andriopoulos. Managing Change, Creativity and Innovation. Publisher: SAGE Publications Ltd, 2017. 664 p.
9. Steve Brown. The Innovation Ultimatum: How six strategic technologies will reshape every business in the 2020s. Publisher: Wiley, 2020, 320 p.
10. Zornitsa Yordanova. The Business INNOVATION Book: The most important that you need to know about INNOVATIONS being part of the innovation era. Publisher: Kindle Edition, 2018, 344 p.

Supplemental

1. T. Klueter, L. F. Monteiro, and D. R. Dunlap, "Standard Vs. Partnership-Embedded Licensing: Attention and the Relationship between Licensing and Product Innovations," *Research Policy* 46, no. 9 (2017).
2. B. J. Rickard, T. J. Richards, and J. B. Yan, "University Licensing of Patents for Varietal Innovations in Agriculture," *Agricultural Economics* 47, no. 1 (2016).
3. P. Belingheri and M. I. Leone, "Walking into the Room with Ip: Exploring Start-Ups' Ip Licensing Strategy," *Management Decision* 55, no. 6 (2017).
4. P. M. Bican, C. C. Guderian, and A. Ringbeck, "Managing Knowledge in Open Innovation Processes: An Intellectual Property Perspective," *Journal of Knowledge Management* 21, no. 6 (2017);
5. A. Cammarano et al., "Open Innovation and Intellectual Property: A Knowledge-Based Approach," *Management Decision* 55, no. 6 (2017).
6. A. Toma, G. Secundo, and G. Passiante, "Open Innovation and Intellectual Property Strategies: Empirical Evidence from a Bio-Pharmaceutical Case Study," *Business Process Management Journal* 24, no. 2 (2018).
7. Deepak Somaya, "Patent Strategy and Management," *Journal of Management* 38, no. 4 (2012).
8. Matthew C. Le Merle and Alison Davis. *Corporate Innovation in the Fifth Era: Lessons from Alphabet/Google, Amazon, Apple, Facebook, and Microsoft*. Publisher: Cartwright Publishing, 2017. 290 p.
9. Tamara Ghandour. *Innovation is Everybody's Business: How to Ignite, Scale, and Sustain Innovation for Competitive Edge*. Publisher: Nicholas Brealey, 2020. 304 p.
10. Marc H. Meyer and Frederick G. Crane. *Venturing: Innovation and Business Planning for Entrepreneurs* Publisher: lulu.com, 2017. 416 p.

14. Information Resources

1. Committee on Education and Science. URL: <http://kno.rada.gov.ua/komosviti/control/uk/publish/article>.
2. State Committee of Statistics. URL: <http://www.ukrstat.gov.ua>.
3. The Cabinet of Ministers of Ukraine. URL: <http://www.kmu.gov.ua>.
4. Ministry of Economy. URL: <http://www.me.gov.ua>.
5. Ministry of Finance. URL: <http://www.minfin.gov.ua>