**Syllabus**

**1. Name of a subject:** Innovative technologies and new products in international banking (in English)

**2. Mapping of learning outcomes (list of competences), with the relevant indicators described and subject learning outcomes indicated**

The section lists the graduates’ coded competencies that are to be developed during the learning process, indicators that show their development (generalized descriptions of specific actions performed by the graduate that clarify and reveal the competence content), learning outcomes (knowledge, skills) with indicators of competence development (in the form of a table):

Table 1

|  |  |  |  |
| --- | --- | --- | --- |
| Competence code | Competence | Competence development indicators[[1]](#footnote-1) | Learning outcomes (skills[[2]](#footnote-2), and knowledge) and indicators that show competence development |
| DKN-2 | The ability to effectively use modern information technologies and systems to analyze statistical and other data, ratings, indicators in studying of international financial market | 1.Applies modern innovative technologies and data analysis systems in international financial market research  2. Uses methodological tools to assess financial market effectiveness of functioning to work out recommendations for improving the technologies and strategies used. | Knowledge of the basics of organization of  banking and the causes for its change nowadays.  Ability to analyze the effectiveness of banking  activities and to determine the directions of its improvement.  Knowledge of indicators of effectiveness of banking activities.  Ability to determine which modern technologies and strategies will improve the efficiency of banking |
| DKN-3 | Ability to develop and implement models of financial strategies in investment, engineering and other operations on international financial market using financial technologies and new financial products, including derivatives and cross-products of the international financial market. | 1.Develops financial models and strategies in investment and other operations on international and Russian financial markets  2. Applies and uses financial technologies and innovative financial products, including derivatives and cross-products of the financial market. | Knowledge of financial models and strategies’ specifics in investment and other operations on international and Russian financial markets.  Ability to integrate modern financial models in investment and other operations on international and Russian financial markets into the strategy of banking activity development.  Knowledge of modern innovative technologies and financial products.  Ability to apply modern innovative technologies and financial products, including derivatives and cross-products of the financial market to improve bank’s efficiency |
| DKN-5 | Ability to take part in international negotiations on monetary, financial and investment cooperation, to develop proposals on terms of international monetary and financial contracts. | 1. Uses modern methods of conducting international negotiations on monetary, financial and investment cooperation  2. Develops proposals to set terms of international monetary and financial contracts | Knowledge of basic  terminology in foreign  language in innovative technologies and products in international banking activity.  Ability to easily perceive, analyze and critically evaluate oral and written  information in foreign  language on innovative technologies and products in international banking.  Knowledge of specifics of international monetary and financial contracts for distinct operations.  Ability to include in international monetary and financial contracts provisions that maximally protect their side and give advantages to their side in their implementation |
| PKN-3 | Ability to use innovative  technologies, system analysis methods and modeling economic processes at staging and solving economic challenges | 1. Applies modern mathematical models and information technologies to predict trends in economic development, to resolve economic problems at the macro, meso and micro levels, to assess the consequences of management decisions  2. Knows how to rank the strategic and tactical goals of economic development at the macro-, meso- and micro levels; to use factual (statistical and economic-mathematical) methods for analysis and systemic assessments | Knowledge of scientific analysis’s basics of modern development trends of international banking activities; evaluation criteria and mechanisms of implementation of innovative technologies and new products developed in the banking industry.  Ability to effectively apply and adapt modern methods of analysis of economic processes and phenomena in international banking activities; to develop  programs of implementation of new products used in  international banking activities; to effectively apply and to adapt foreign experience of innovative technologies implementation in the banking sector.  Knowledge of the strategic and tactical goals of economic development at macro, meso and micro levels  Ability to use factual (statistical and economic-mathematical) methods for analysis and system assessments |

**3. Place of the subject in the curriculum**

The discipline "Innovative technologies and new products in international banking" (in English) is the discipline of the module of the direction of the master's program "The World Financial Market: Strategies and Technologies". The discipline is based on the knowledge gained while studying the disciplines "Banking", "Actual problems of organizing and reforming the modern world financial market.".

**4. Workload in credits and academic hours, with class work (lectures and seminars) and self-study indicated**

The total workload of the course is 5 credit units (180 hours). The discipline stipulates a home creative work in module 3. The formative assessment type is exam.

Table 2

|  |  |  |  |
| --- | --- | --- | --- |
| **Type of work** | **Total**  **(in credits and hours)** | **Semester (Module)3 (in hours)** | **Semester**  **(Module)2**  **(in hours)** |
| **Overall workload** | **5 credit units; *180 hours*** | *180* |  |
| ***Class work*** | *54* | *54* |  |
| *Lectures* | *18* | *18* |  |
| *Seminars, practicals* | *36* | *36* |  |
| ***Self study*** | *126* | *126* |  |
| Formative assessment |  | Home creative work |  |
| Summative assessment |  | exam |  |

**5. Subject content (with the thematic components indicated).**

**Theme 1. Reasons for changes in the activities of banks in modern conditions.**

Global trends in the economy, the impact of innovation on various sectors of the economy. Internal and external causes of changes in the activities of banks in modern conditions. Archetypes of innovation.

The banking system of Russia at the beginning of the XXI century and the main trends of its development

**Theme 2. The main changes in approaches to banking**

Bank as an ecosystem of banking and non-banking products.

What remains in banks from traditional business. The activities of fintech companies undermine the role of banks as intermediaries in the movement of money resources and reliable partners of other economic agents in settlement and credit operations. Behavior models of banks using financial technologies and with fintech companies. Small banks are looking for their niche between large and online banks.

**Theme 3. Internal changes in banks.**

Трансформация структуры банковских затрат./

Providing the best service to customers and accelerating access to banking products. Deeper risk management and analysis of prospects for working with a specific client. Increased flexibility and speed in the market. Speeding up operations and strengthening internal control over them. Risk management of the entire structure of a growing and increasingly complex bank software for data storage.

Transformation of the structure of bank costs.

**Theme 4. Technological innovations driving changes in banks.**

The use of cloud computing capacity. Big data and analytics. Artificial intelligence and machine learning.

Robotization and automation of banking processes. Using blockchain technology. Use of application programming interfaces to expand the functionality of their own operating banking systems.

**Theme 5. Innovations in banking retail**

Elimination of friction in communication with individuals. Enhanced use of customer data analytics. Multi-channel communication with customers.

Personification of the services offered. Simplify customer access to banking products. Offering non-banking services.

**Theme 6. Changes in corporate banking**

Increased competition for a reliable borrower. Requirements for a deeper study of the specifics of corporate clients. Large banks pay more attention to medium and small businesses to increase margins. Reduced workflow, simplified access to banking services, increased security, desire to improve customer satisfaction with the banking service, which maximally covers his needs not only in banking products.

Maximum digitalization of the processes of communication between the bank and the client

**Theme 7. Issues of regulation of banking operations**

"Cryptocurrencies" and its regulation.

EU Payment Service Directive (PSD2).

Focuses of central banks' attention:

- new technologies introduce new risks to the reliability of operations by banks,

- fintech companies are engaged in banking operations,

- ensuring the safety of personal data of customers,

- remote customer identification,

- risk management in the new environment.

**6. List of teaching and methodological materials needed for the students self-study**

**6.1. List of questions for student self-study and types of out-of-class activities**

The section lists types of out-of-class activities that correspond to items in the subject content description.

There is a list of questions the students should answer while working independently.

Table 3

|  |  |  |
| --- | --- | --- |
| **Itemized subject content** | **Questions the students should answer within the self-study process** | **Types of out-of-class activities** |
| 1 | Specifics of the technological revolution in the modern world. | Home study |
| 2 | Specifics of the activities of banks in modern conditions | Home study |
| 3 | Specifics of the activities of fintech companies | Home study |
| 4 | Conflict or cooperation of banks with fintech companies | Home study |
| 5 | Formation of innovative business models of banks | Home study |
| 6 | Banking services, products and technologies as objects of innovation | Home study |
| 7 | What does a modern bank’s client want? | Home study |
| 8 | The impact of new technologies on lending activities of banks | Home study |
| 9 | How do central banks regulate the activities of fintech companies? | Home study |
| 10 | Technological innovations and new products in Russian banks. | Home study |
| 11 | Quasi-money market: dead end branch of development or future world currency? | Home study |
| 12 | Electronic Transaction Security Issues: Possible  solutions | Home study |
| 13 | Risks of Internet banking: problems and solutions. | Home study |

**6.2. List of questions/assignments/topics for students’ preparation to formative assessment**

1. The role of innovation in modern economic development.

2. Shifts in the global financial system based on information technology.

3. Development of the world banking industry in terms of emerging new economy.

4. The banking system of Russia at the beginning of the XXI century and the main

trends in its development.

5. Innovation as a tool to improve business efficiency.

6. Banking services, products and technologies as objects of innovation.

7. Conceptual foundations of the bank's innovative activity.

8. Evolution and structural analysis of banking innovation products and services of the late XX - early XXI centuries.

9. Characteristics of innovation as technologies of info communication type.

10. The specifics of the process of diffusion of innovations in banking

business.

11. Formation of innovative bank business models.

12. Innovation process: management principles, concept "performance efficiency", its indicators.

13. Principles and criteria for improving bank’s performance using innovations.

14. Methods for assessing the effectiveness of the implementation of information

technologies.

15. Classification of banking risks and how its manifest when banks implement

innovations.

16. Risk management system formation and influence innovations on it

**7. Mandatory and optional reading list**

Legal regulations. The list of legal regulations adopted at the international and federal levels, including international treaties ratified by the Russian Federation, Constitution of the Russian Federation, codes, laws of the Russian Federation, federal laws, decrees of the President of Russia, resolutions of the Government of Russia, etc. The list should not exceed 10 entries.

Mandatory reading list.

1. Инновационный менеджмент: учебник / под ред. В.Я. Горфинкеля, Т.Г. Попадюк. - Москва: Вузовский учебник, 2014, 2015. - 380 с. - Магистратура. –Текст непосредственный.- То же - 2019. –ЭБС ZNANIUM.com. - URL: http://znanium.com/catalog/product/1003543 (дата обращения: 01.10.2019). – Текст : электронный.

Optional reading list

1. Global Corporate Banking 2018: Unlocking Success Through Digital - © 2019 Boston Consulting Group

<https://www.bcg.com/ru-ru/publications/2018/global-corporate-banking-2018-unlocking-success-through-digital.aspx>

2. Building the corporate bank of the future - © 2019 McKinsey & Company

<https://www.mckinsey.com/industries/financial-services/our-insights/building-the-corporate-bank-of-the-future>

3. 2019 Banking Industry Outlook - © 2019. Deloitte Touche Tohmatsu Limited

<https://www2.deloitte.com/global/en/pages/financial-services/articles/gx-banking-industry-outlook.html>(*чтобы получить обзор, надо нажать на открывшейся странице кнопку "Download the PDF"* )

4. 2019 Banking and Capital markets outlook. Reimagining transformation. - © 2019. Deloitte Touche Tohmatsu Limited <https://www2.deloitte.com/content/dam/Deloitte/global/Documents/Financial-Services/gx-fsi-dcfs-2019-banking-cap-markets-outlook.pdf>

5. Cyber Risk for the Financial Sector: A Framework for Quantitative Assessment. By Antoine Bouveret - IMF Working Papers. WP/18/143 (*чтобы получить обзор, надо загрузить в поиск указанное название статьи*)

6. Digital Banking Transformation - Trestle Group, 2018

[<https://www.trestlegroup.com/wp-content/uploads/2018/04/Digital-Banking-Transformation-WP-arial.pdf>](https://www.trestlegroup.com/wp-content/uploads/2018/04/Digital-Banking-Transformation-WP-arial.pdf)

7. [Top 10 Trends in Retail Banking: 2019 - Capgemini, 2019](https://www.capgemini.com/resources/top-10-trends-in-retail-banking-2019/) <https://www.capgemini.com/resources/top-10-technology-trends-in-retail-banking-2018/>[(](https://www.capgemini.com/resources/top-10-trends-in-retail-banking-2019/)*[чтобыполучитьобзор, надо нажать на открывшейся странице кнопку "Retail Banking Top 10 Tr... "справа внизу)](https://www.capgemini.com/resources/top-10-trends-in-retail-banking-2019/)*

8 . Discover the pattern in personality - Copyright © 2019 Accenture. Global Financial Services Consumer Study.

<https://www.accenture.com/_acnmedia/pdf-95/accenture-2019-global-financial-services-consumer-study.pdf>

**8. List of IT resources, incl. the list of software, information and reference systems (as appropriate).**

**8. 1. Software:**

1. Windows, Microsoft Office software;

2. ESET Endpoint Security antivirus software; etc.

**8.2. Databases and information and reference systems**

E.g.

1. Garant information and reference system;

2. Consultant Plus legal information system;

3. <http://ru.wikipedia.org/wiki/Wiki> e-encyclopedia;

4. <http://www.skrin.ru/> database; etc.

5. [www.imf.org](http://www.imf.org)

6. [www.oecd.org](http://www.oecd.org)

7. [www.un.org](http://www.un.org)

8. [www.unctad.org](http://www.unctad.org)

9. [www.undp.org](http://www.undp.org)

10. [www.worldbank.org](http://www.worldbank.org)

11. [www.wto.org](http://www.wto.org)

12. Электронная библиотека Финансового университета (ЭБ) http://elib.fa.ru/

13. Электронно-библиотечная система BOOK.RU http://www.book.ru

14. Электронно-библиотечная система «Университетская библиотека ОНЛАЙН» http://biblioclub.ru/

15.Электронно-библиотечная система Znanium http://www.znanium.com

16.Электронно-библиотечная система издательства «ЮРАЙТ» https://www.biblio-online.ru/

17. Деловая онлайн-библиотека Alpina Digital http://lib.alpinadigital.ru/

**8.3. Certified software/hardware used for information protection**

If no such software/hardware is used, there is a special mark.

**Title page template**

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(subject name)

**SYLLABUS**

***Level of Study:*** *Bachelor’s Degree / Master’s Degree / Postgraduate Degree \*to be chosen\**

***Field of Study:*** *\*to be defined\**

***Study Program:*** *\*to be defined\**

1. To be filled in when the updated Financial University educational standards and federal state educational standards of higher education “3++” are implemented. [↑](#footnote-ref-1)
2. Skills are described when the Financial University educational standards of the 1st generation and federal state educational standards of higher education “3+” are implemented. [↑](#footnote-ref-2)