

# MaCICT

## Current State And Future Work

**Yanka Kupala State University of Grodno**

## WP02

Modernisation of  
the MSc study  
programme in  
ICT

### A.2.3 Developing the structure, contents & materials for the courses

**10 courses (5 professional and 5 soft/transferrable skills courses) are updated/designed**

- Design of Experiment
- Enterprise Informatization Systems
- Database Design and Maintenance
- Information Architecture and Interface Prototyping (new)
- Strategy and Management of IT Projects and Systems (new)
- Rhetoric and Academic Writing (new)
- Commercialization of Research Results (new)
- Intercultural, business and personal communications (new)
- IT Career Management (new)
- Business Presentation Technologies (new)

## A.2.3 Developing the structure, contents & materials for the courses

**Syllabus template is developed and includes:**

- Course outline
- Learning Objectives
- Learning Outcomes
- Course methodology
- Teaching and learning strategies
- Student workload. Form of student activity.
- Assessment Tasks
- Assessment criteria
- Course Literature & References  
(Primary/Supplementary/Internet Sources)

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## A.2.3 Developing the structure, contents & materials for the courses

**Learning outcomes are written using Bloom's Taxonomy**

### WP02

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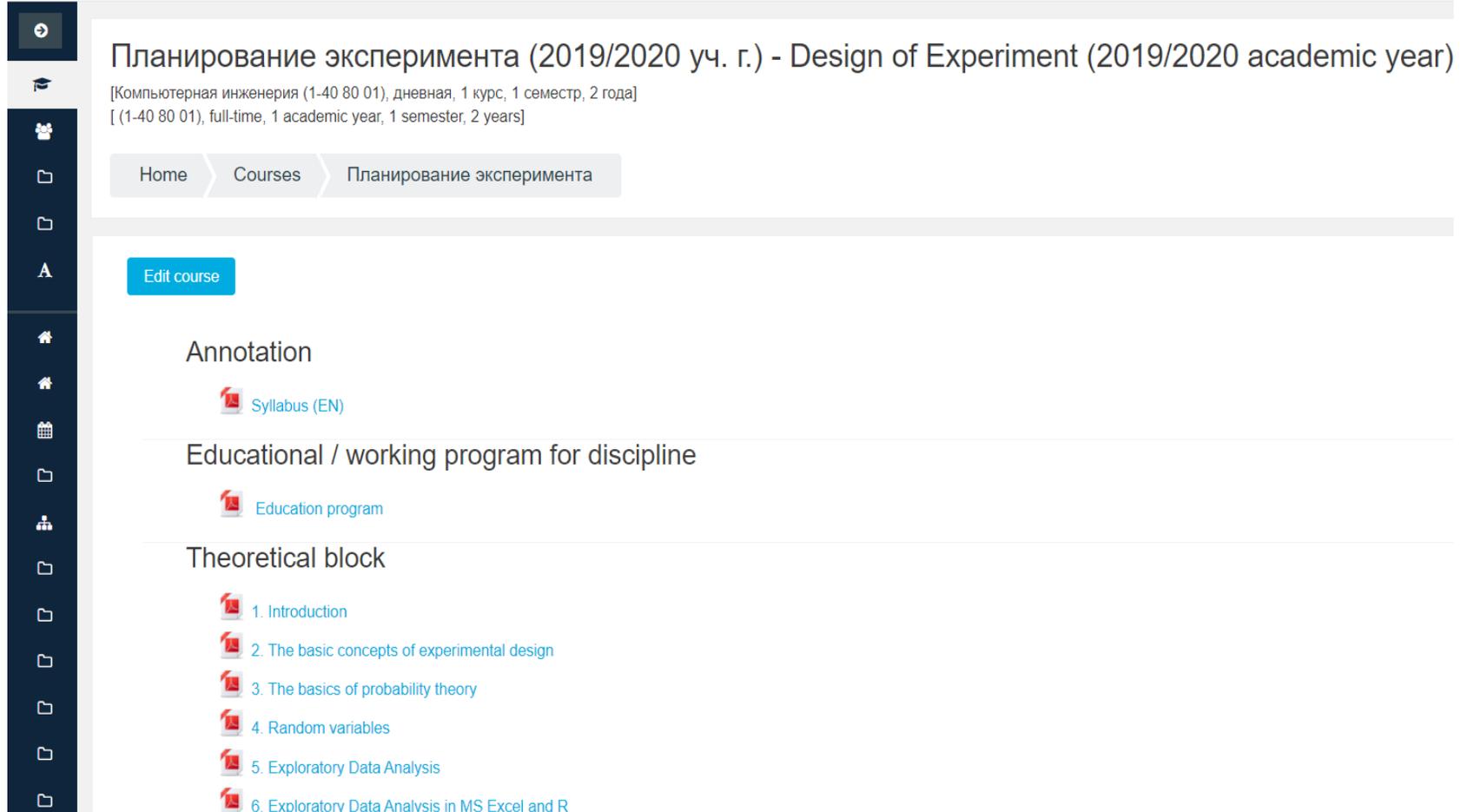
Remembering	Understanding	Applying	Analysing	Evaluating	Creating
<b>Learning outcome</b>		<b>Assessment criteria</b>			
<i>The student will be able to:</i>		<i>The student can:</i>			
1. <b>illustrate</b> the structure of the IT industry in Belarus in the context of at least 5 dimensions		1. <b>classify</b> types of IT companies and explain their business model;			
		2. <b>list</b> at least 5 sectors of companies' activity and provided services;			
		3. <b>outline</b> geographical distribution of companies by country regions;			
		4. <b>name</b> top-5 technologies and programming languages used and demanded in IT-industry;			
		5. <b>state</b> 3 current technological and growth trends of IT-industry.			
2. <b>label</b> major models of IT-career development and <b>distinguish</b> them		1. <b>name</b> at least 2 models of IT-career development: horizontal and vertical growth;			
		2. <b>explain</b> the difference between professional and management career growth;			
		3. <b>identify</b> at least 3 pros and cons of vertical and horizontal model of career development;			
		4. <b>list</b> 4-6 key positions of IT-specialist (Developer, QA Engineer, UI/UX Designer, Business Analyst) and <b>name</b> their 4-6 career levels depending on horizontal or vertical path;			
		5. <b>point out</b> the responsibilities of 8 categories of IT professionals: Developer (frontend / backend / full stack Developer, Build / DevOps Engineer); QA Engineer; Business Analyst; UX/UI/Graphical Designer.			

# A.2.3 Developing the structure, contents & materials for the courses

Learning workspace is organized on base of LMS Moodle

## WPO2

Modernisation of  
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Планирование эксперимента (2019/2020 уч. г.) - Design of Experiment (2019/2020 academic year)  
[Компьютерная инженерия (1-40 80 01), дневная, 1 курс, 1 семестр, 2 года]  
[(1-40 80 01), full-time, 1 academic year, 1 semester, 2 years]

Home > Courses > Планирование эксперимента

Edit course

Annotation

- Syllabus (EN)

Educational / working program for discipline

- Education program

Theoretical block

1. Introduction
2. The basic concepts of experimental design
3. The basics of probability theory
4. Random variables
5. Exploratory Data Analysis
6. Exploratory Data Analysis in MS Excel and R

## WP02

### Modernisation of the MSc study programme in ICT

## A.2.4 Advertising the programme

### To be done:

- Develop 2-page flyers of the "Computer Engineering" MSc programme (RU/EN)
- Print and distribute flyers (Grodno, Grodno region, Partner Universities)
- Upload course syllabuses (after QA review) on the project website as well as on faculty website
- Attract more subscribers to MACICT social accounts (Facebook, Instagram, BK)
- Make a video advertisement of the "Computer Engineering" programme (done, need to be updated)

## WPO3

MSc programme  
(1st intake)

### A 3.1 Enrolment of the 1st intake

15 students enrolled:

- 10 - BY students, teaching language – RU
- 5 – Foreigners (Iraq, China, Turkmenistan), teaching language – RU, EN.

Difficulties identified:

- Foreign students have different background
- Low language skills (RU, EN) among Chinese students
- Insufficient speaking skills (EN) among BY students

# WP03

## MSc programme (1st intake)

### **A 3.2 Piloting the MSc in ICT (1st intake)**

#### **1. Modernized curriculum “Computer Engineering”**

Curriculum consist of 4 components:

- State component (5 courses, 998 hours)
- University component (professional courses, **1730** hours)
- Additional courses (Philosophy, Foreign language, 568 hours)
- Optional courses (Pedagogy and Psychology of HE, 108 hours)

#### **2. 5 soft/transferable skills courses are added:**

- IT Career Management
- Intercultural, business and personal communications
- Commercialization of Research Results
- Rhetoric and Academic Writing
- Business Presentation Technologies

# WP03

MSc programme  
(1st intake)

## A 3.3 Conducting projects in international student groups

### Spring 2019 – Software Development in large teams (ITU)

5 students and 2 teachers involved

### Fall 2020 – Industrial Software Engineering course (ITU)

8 students and 2 teachers involved

2 teams

#### Outcomes:

- Excellent experience of working in teams remotely being in close collaboration with Product Owners
- Excellent example of how to organize such a courses that we are going to apply at YKSUG: forms of student activity, communication and software development tools, etc.
- Students sufficiently improved their professional, communication and language skills
- 5 students are already employed, 2 students got a job offer!!!

## **A.3.4 Preparation for & participation in international ICT Management Conference**

**2 students (China, Belarus)** are currently supervised to present their research results at the conference.

# WP03

MSc programme  
(1st intake)

## WP05

QA guidelines &  
procedures for  
the programme

### A.5.4 Application of the QA to the piloted MSc in ICT

#### To be done:

- Create Evaluation Questionnaire of each course/module (based on Juho proposal, [Google Form](#))
- Collect and analyze students answers

## A.6.1 Internal quality control

**To be done:**

# WP06

QUALITY PLAN:  
Quality of the  
project progress

## WP07

### Dissemination of the project

## A.7.2 Preparing & holding Internal dissemination seminars

### Done:

**January, 2021** - Dissemination seminars “Conducting projects in international student groups”

**Speakers:** students and teachers participated in ITU course

**Goal:** Experience exchange, demonstration of forms and tools used to organize such a distributed course, attract teacher to apply gained experience, show EU best practices.

**Audience:** undergraduate students, master students, faculty staff

# WP07

Dissemination of  
the project

## A.7.3 Organising Information Days

**To be done:**

**March, 2021** – Second Information Day

**Speakers:**

**Goal:**

**Audience:**