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Skoltech Doctoral Programs

Student Orientation

26 October 2017

What is in the very end ?

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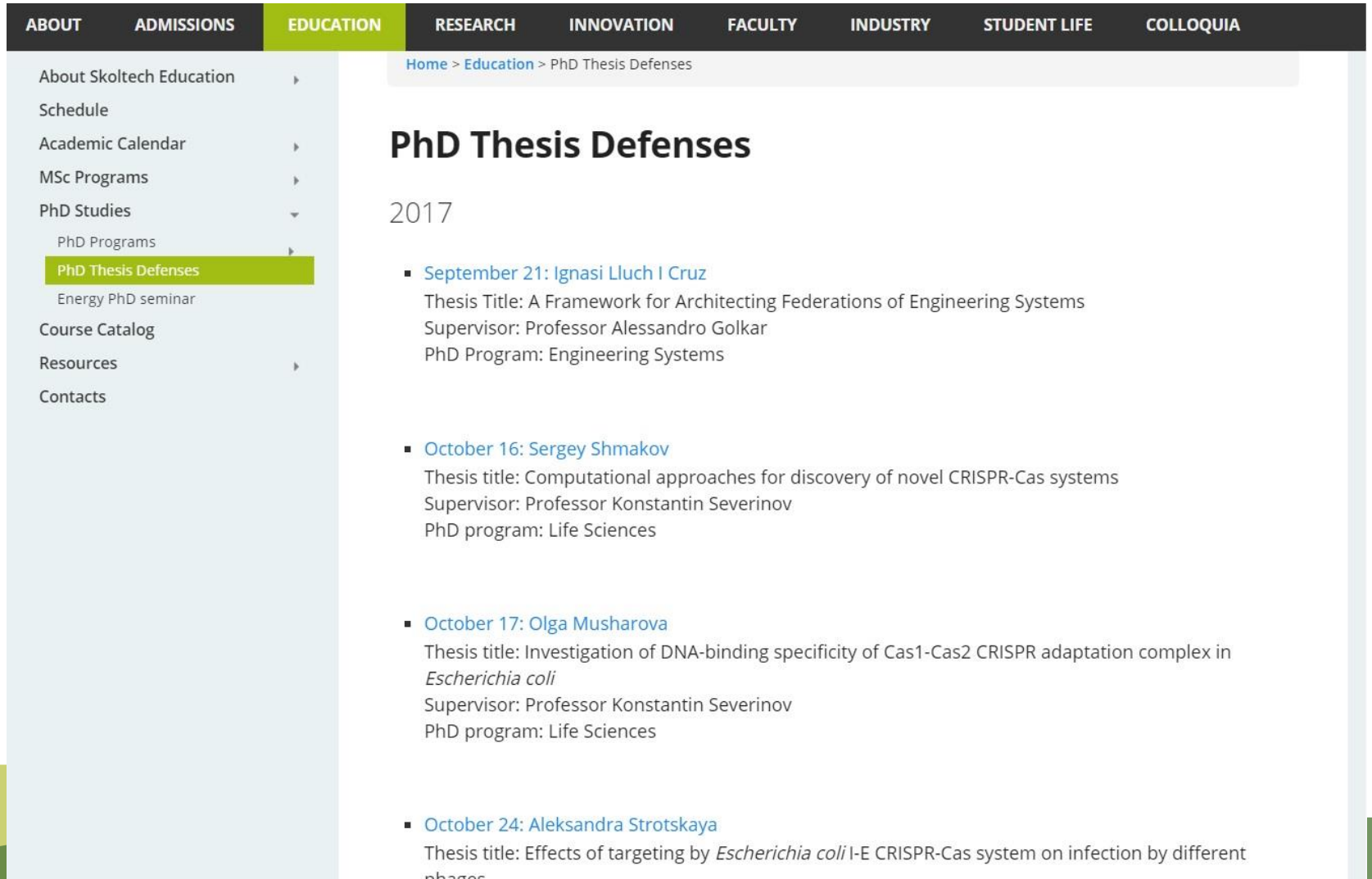
PhD Thesis Defense

http://www.skoltech.ru/en/education/phd-defenses/



Diploma. PhD Degree

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THE SKOLKOVO INSTITUTE OF SCIENCE AND TECHNOLOGY
UPON THE RECOMMENDATION OF THE FACULTY HEREBY CONFERS ON

IGNASI LLUCH I CRUZ

THE DEGREE OF
DOCTOR OF PHILOSOPHY
IN RECOGNITION OF SCIENTIFIC AND RESEARCH ACHIEVEMENTS IN THE FIELD OF
ENGINEERING SYSTEMS

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WITH ALL THE RIGHTS AND PRIVILEGES THERETO PERTAINING
GIVEN AT SKOLKOVO, MOSCOW REGION, RUSSIAN FEDERATION
ON SEPTEMBER 21, 2017

Skoltech

ALEXANDER KULESHOV
PRESIDENT

ANNA DEREVNINA
ASSOCIATE PROVOST, DEAN OF EDUCATION

№ #: 2017-03-0001

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What about ‘candidate of science’ degree ?

Doctoral Degree and Diploma in Skoltech

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PhD Program	• Skoltech Degree • Doctor of Philosophy in the field of XXX
Aspirantura	• Russian State Diploma • “Researcher. Lecturer-Researcher”
Defense in (Partner’s) VAK Committee	• State Degree • “Candidate of science” in physics and math sciences, bio, chemistry..

What are the requirements ?

PhD Thesis Requirements

A. Course credits requirement **- 30 ECTS**

B. Thesis Research (incl. Thesis Proposal Defense etc.) **- 198 ECTS**

C. Pedagogical Experience (Teaching Assistance) – **3 ECTS**

D. Qualifying Exam – **3 ECTS**

E. Thesis Defense – **6 ECTS**

F. Publish at least two papers with Skoltech affiliation in WoS
(Requirement may vary within different educational programs)

G. 2 conference talks with Skoltech affiliation at the International reputable conferences

There are many programs. Who is responsible ?

Ph.D. Program Committee

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Academic Governance : admission, individual doctoral committees, thesis proposal and qualifying exam, annual progress review, Juries for PhD thesis defense

PhD Program	PhD Program Committee
Mathematics and Mechanics	**Chair - Igor Krichever** Andrei Marshakov, Mikhail Bershtein, Mikhail Finkelberg, Alexander Gaifullin, Grigory Olshanski, Evgeny Feigin
	Co-Chair – Iskander Akhatov , **Oleg Vasiliev**
Physics	**Chair - Mikhail Skvortsov** Nikolay Gippius, Vladimir Drachev, Vasili Perebeinos, Alexey Buchachenko,
Materials Science and Engineering	**Chair - Alexei Buchachenko** Keith Stevenson, Artem Abakumov, Pavel Troshin, Andriy Zhugayevich, Sergei Tretyak, Albert Nasibulin, Fardad Azarmi, Sergey Abaimov
Life Sciences	**Chair - Konstantin Severinov** Co-chair - Mikhail Gelfand, Georgii Bazykin, Dmitry Pervouchine, Yuri Kotelevtsev, Petr Sergiev
Computational and Data Science and Engineering	**Chair - Maxim Fedorov** Alexander Bernshtein, Evgeny Burnaev, Grigory Kabatyansky, Stamatios Lefkimmiatis, Ivan Oseledets
Engineering Systems	**Chair - Clement Fortin** Alessandro Golkar, Dzmitry Tsetserukou, Zeljko Tekic, Ighor Uzhinsky, Kelvin Willoughby, Michael Chertkov, Aldo Bischi
Petroleum Engineering	**Chair – Mikhail Spasennykh** Alexey Cheremisin, Yuri Popov, Artyem Myasnikov, Marwan Charara, Andrey Osiptsov, Dmitry Koroteev

Ph.D. Programs Map

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PhD Program	Aspirantura	Research Area	CREI
Mathematics and Mechanics	01.06.01 – Mathematics and Mechanics	01.01.03 Mathematical Physics 01.01.04 Geometry and Topology 01.02.05 Fluid and Gas Mechanics	CAS CDMM
Physics	03.06.01 – Physics and Astronomy	01.04.02 Theoretical Physics 01.04.05 Optics 01.04.07 Condensed Matter Physics	CPQM
Materials Science and Engineering	04.06.01 - Chemistry 22.06.01 - Materials Technology	02.00.04 Physical Chemistry 05.16.09 Materials Science	CEES CDMM
Life Sciences	06.06.01 – Biological Sciences	03.01.03 Molecular Biology 03.01.07 Molecular Genetics 03.01.09 Bioinformatics	CDIBB CBR
Computational and Data Science and Engineering	09.06.01 – Computer Science	05.12.13 Telecommunication Equipment, Systems and Networks 05.13.01 System Analysis and Information Processing 05.13.11 Mathematics and Software for Computers and Networks 05.13.17 Theoretical Foundations of Informatics 05.13.18 Mathematical Modeling, Numerical Methods and Software	CDISE
Engineering Systems	27.06.01 – Control in Technical Systems	05.13.01 System Analysis and Information Processing 05.13.06 Automation and control of technological processes 05.13.18 Mathematical Modeling, Numerical Methods 05.07.10 Innovative Technologies in Aerospace	CSR CEI CDMM CES
Petroleum Engineering	21.06.01 - Geology	25.00.10 Geophysics 25.00.17 Development and Exploitation of Oil and Gas 25.00.20 Geomechanics	CHR

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Courses ?

PhD Course Catalog

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General Doctoral Courses - 18 ECTS:

Philosophy of Science, Technology and Innovation (6 ECTS) *;

Pedagogy (3 ECTS)

Innovation Studies (6 ECTS);

Research Methodology (3 ECTS); (Research Seminar)

Advanced Major-Field Courses - 12 ECTS:

Advanced Major-Field Course 1 (6 ECTS)

Advanced Major-Field Course 2 (6 ECTS)

Recommended Elective - 3 ECTS:

English (3ECTS) *

* - pass English and Philosophy candidate exams for State Diploma

PhD Course Catalog

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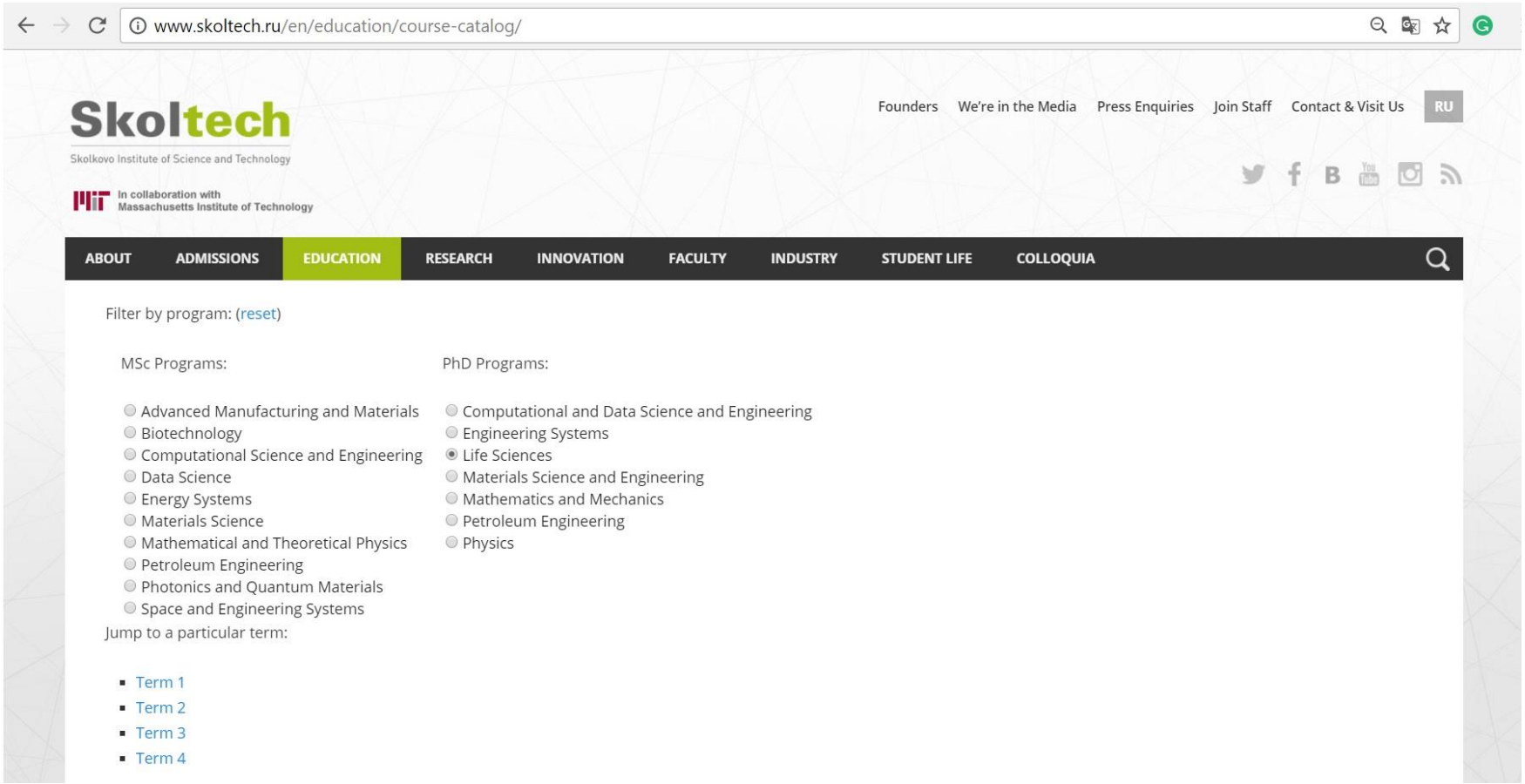
http://www.skoltech.ru/en/education/course-catalog/



How should I plan all these ?

Individual Plans

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online link is :

is.gd/phd_ip4

Individual Plans

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Individual Plan / Индивидуальный план

Standard credit load is 60 credits per year. The following table should be a summary of your credits distribution. Below the table we will ask you to clarify some points.

Distribute Credits Among Terms / Распределите кредиты по семестрам

Term	Advanced Major Field Courses / Профильные курсы (credits / з.е.: 12)	History and Philosophy of Science / История и философия науки (credits / з.е.: 6)	English / Иностранный язык (credits / з.е.: 3)	Pedagogy / Педагогика Высшей школы (credits / з.е.: 3)	Innovation Studies / Курс по инновациям (credits / з.е.: 6)	Research Methodology / Методология научного иссле-дования (credits / з.е.: 3)	Pedagogical Experience / Педагоги-ческая практика (credits / з.е.: 3)	Thesis Proposal / Защита темы диссертации (credits / з.е.: 6)	Research / Научно-исследова-тельская работа (credits / з.е.: 192)	Qualifying Exam / Государст-венный экзамен (credits / з.е.: 3)	Thesis Defense / Научный доклад (credits / з.е.: 6)
2											
3											
4											
5											
6											
7											
8											
9											

Individual Doctoral Committee

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- responsible for a particular PhD student mentorship including regular monitoring of the PhD student's progress

- **the committee should consist of 3 members (including the supervisor)**, which could be Faculty at Skoltech or external faculty member working closely with a PhD student

- **committee members are assigned by the supervisor**. All Committee members should confirm their involvement

Academic Year Calendar 2017-2018

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http://www.skoltech.ru/en/education/academic-calendar

Term 2 : November – December. **Research & Individual Plan**

Winter Term: January. **Individual Plan Submission**

Term 3 : February – March. **Thesis Proposal Defense**

Term 4: April-May.

Summer Term: June-July.

Term 5: September-October. **Annual Progress Review**

Individual Plans

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Deadline for submission is **February 1, 2018**

General Structure - Example

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Year 1	Year 2	Year 3	Year 4
	Annual progress review within PhD Program Committee	Annual progress review	Annual progress review
Individual study plan submission			
Research (42 ECTS)	Research (45 ECTS)	Research (51 ECTS)	Complete research (54 ECTS)
Minimum course credits requirement (12 ECTS)	Courses (12 ECTS)	Complete course credits requirement (6 ECTS)	
	Qualifying Exam (3 ECTS)	Pedagogical experience (3 ECTS)	Thesis Final Review
Thesis proposal defense (6 ECTS)			Thesis Defense (6 ECTS)
60 ECTS	60 ECTS	60 ECTS	60 ECTS

Other Important Information

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- Grading and Credit System

- How to use SIS/Canvas

Where to Find Information

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- Resources – Student Information System (SIS). Every student has/will have a login/password
- Skoltech website - skoltech.ru
- Education Office – 3rd floor, Open Office Area 337
- E-mail education@skoltech.ru

**This presentation will also be saved in SIS - Resources*

Grading and Credit System

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- Grading scale A-F (or Pass/Fail); No “+” or “-“;
- A-E are passing grades**. Students receive full number of credits;
- F is a failing grade. Students receive 0 credits;
- Fx grade allows improvement of the grade after completion of a particular task (resubmission of assignment, etc.). Max. grade – D/E
- Grading scheme for each class is set by the Course Instructor.
- Course Instructor makes the final decision about the grade.
- Grade appeals may be sent to education@skoltech.ru

Number of credits indicates workload,
Grade – student performance

Term Registration. Drop/Add

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- Start - 3 weeks prior to beginning of the term
- Drop/add date - Monday of week 2

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How to use SIS/Canvas?

Access to SIS/Canvas

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Locate email from IT Helpdesk with your credentials to Skoltech Services (SIS/Canvas).

If you have any issues with your login, please email to IT Helpdesk at helpdesk@skoltech.ru

Access to SIS

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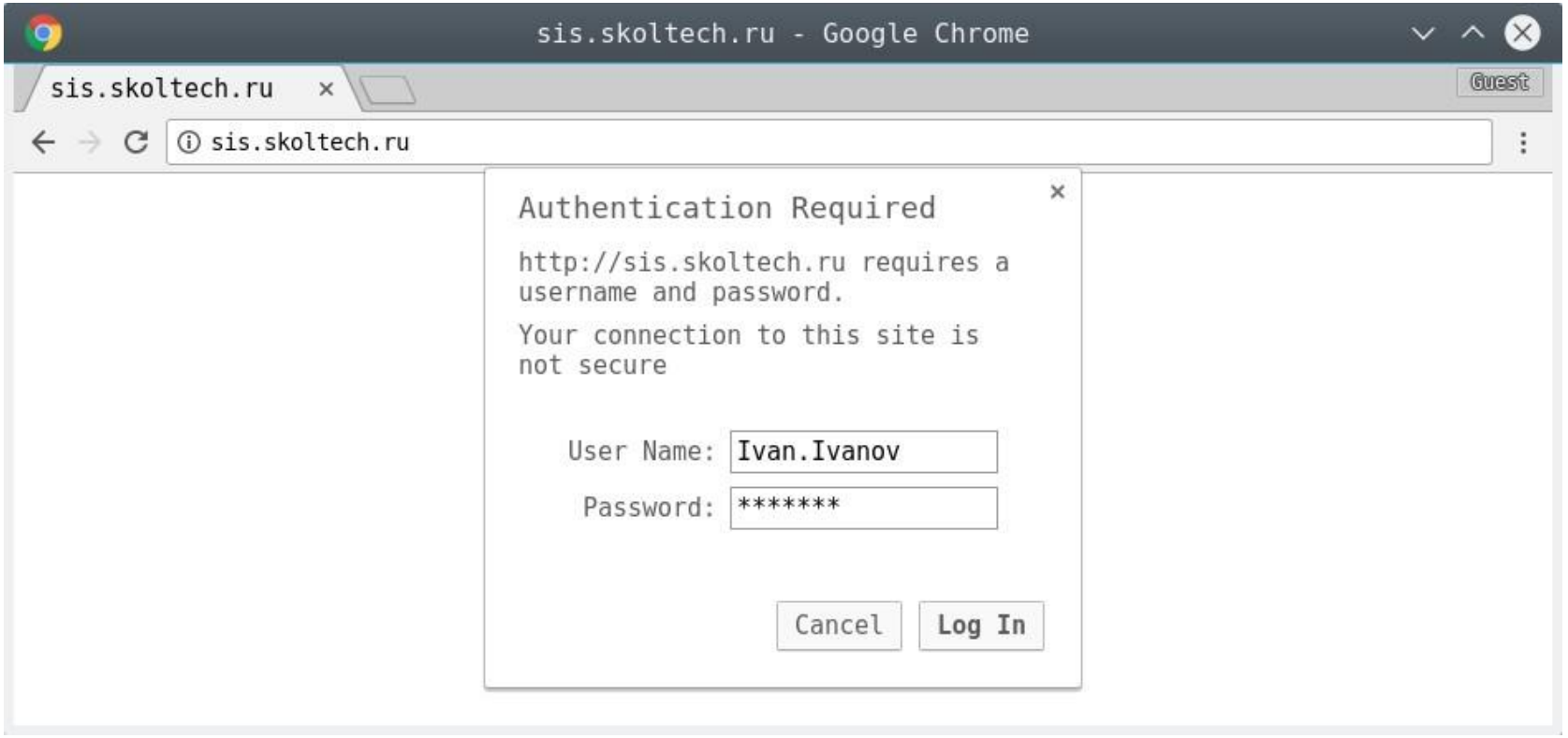

1. Follow the link http://sis.skoltech.ru/
2. Insert your username (you email alias) and password to Skoltech Services

SIS: Enroll / Drop a Course

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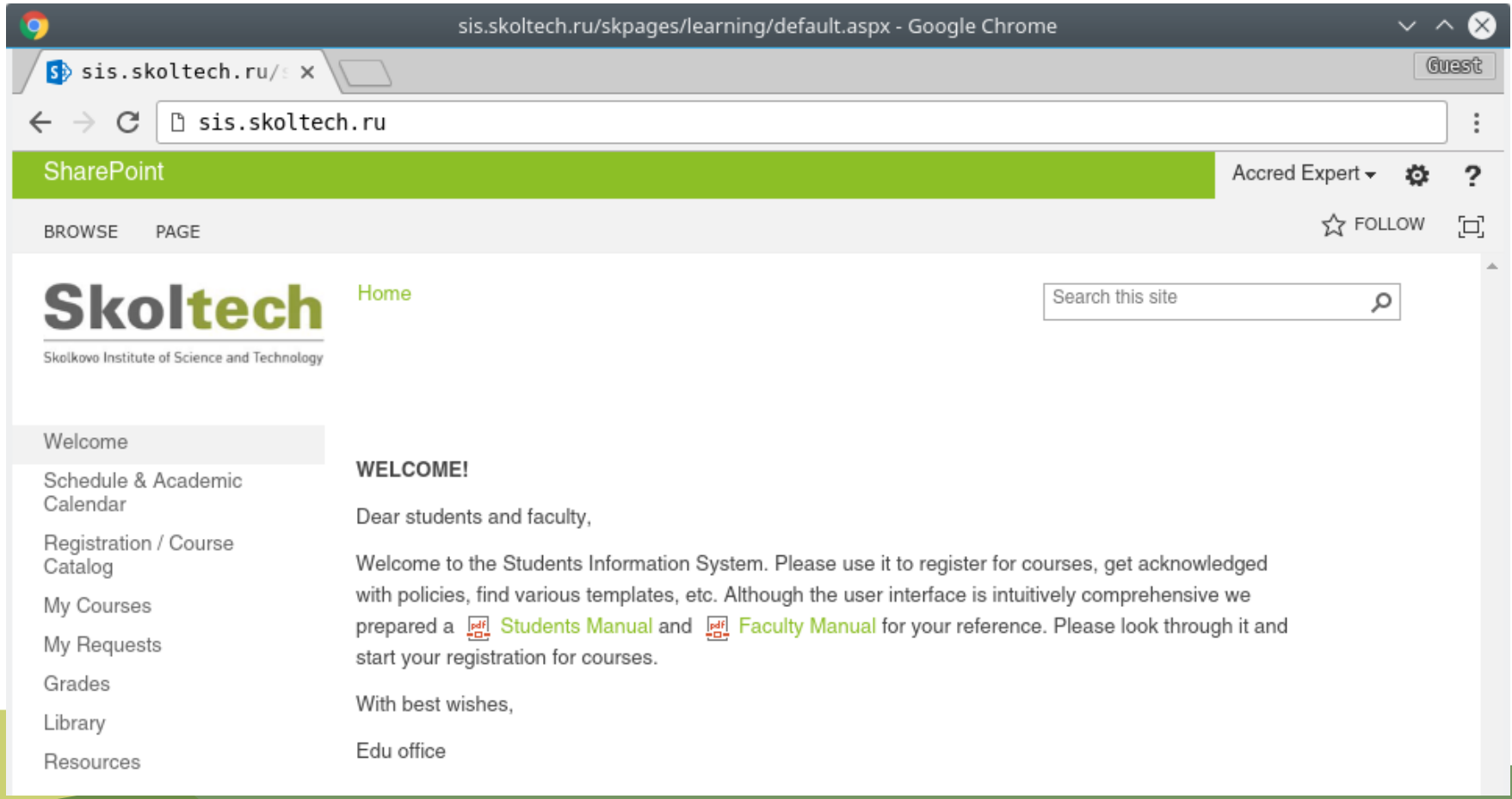
http://sis.skoltech.ru



SIS: Enroll into a Course

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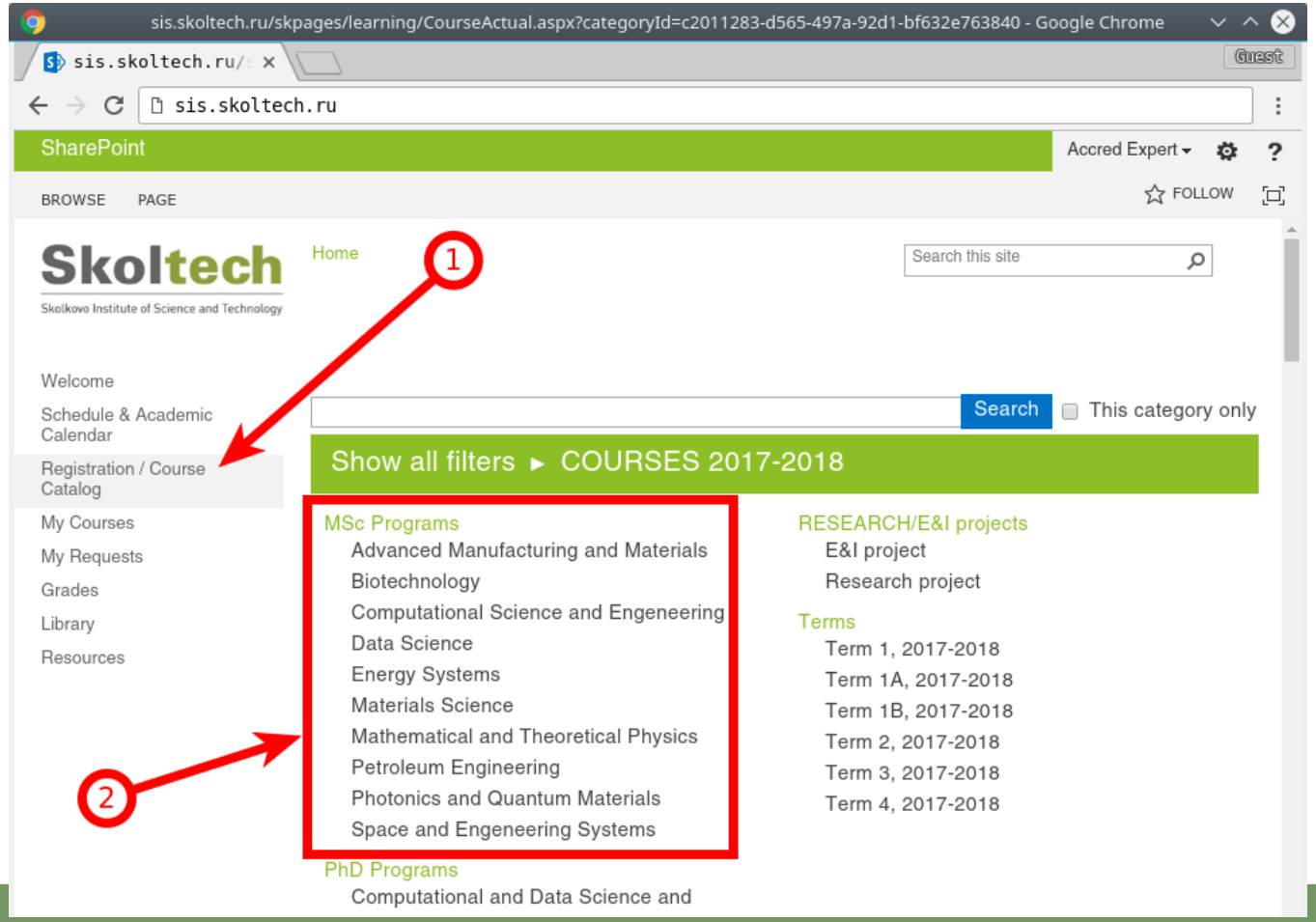
Find your program



SIS: Enroll into a Course

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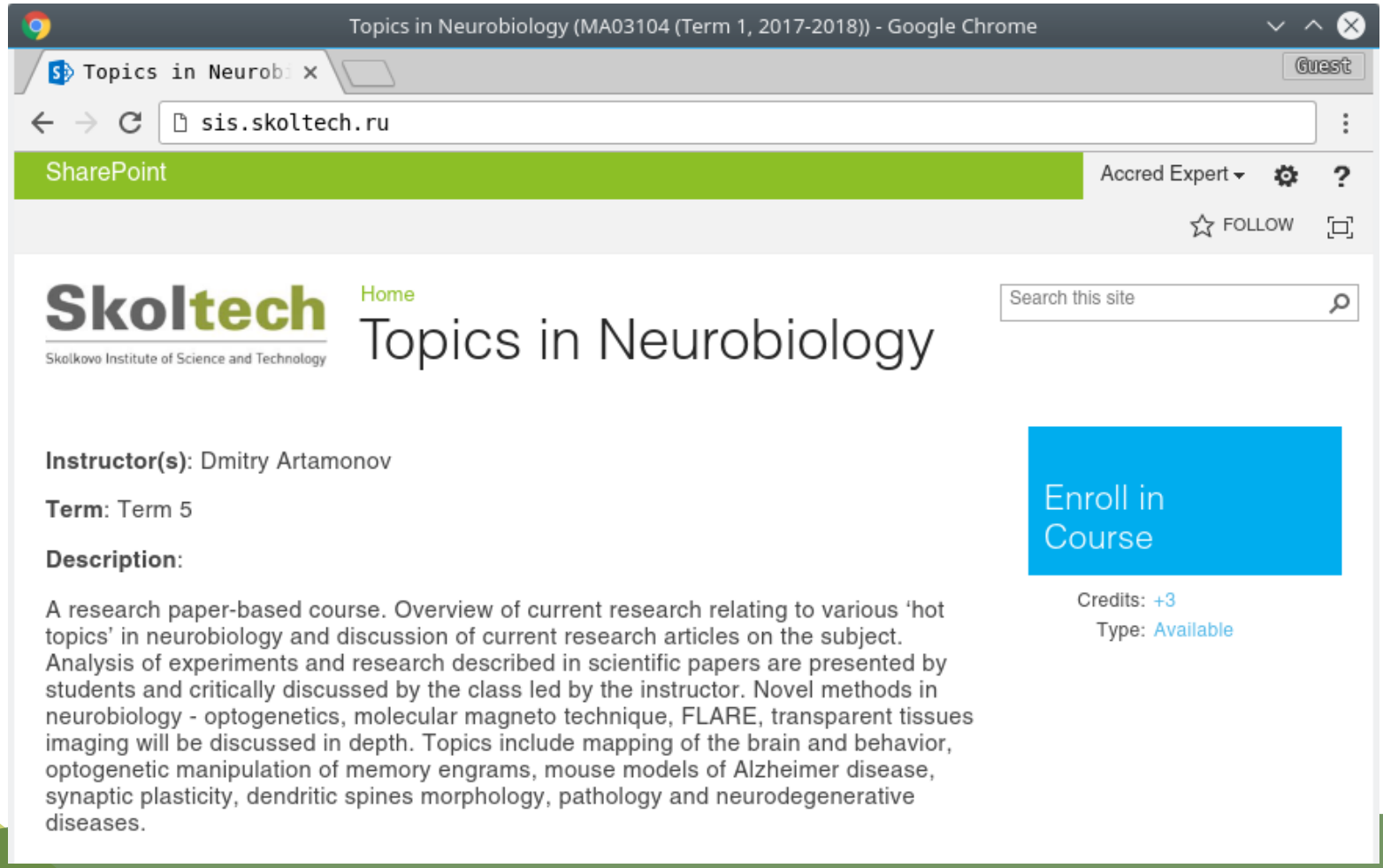
Select course



SIS: Enroll into a Course

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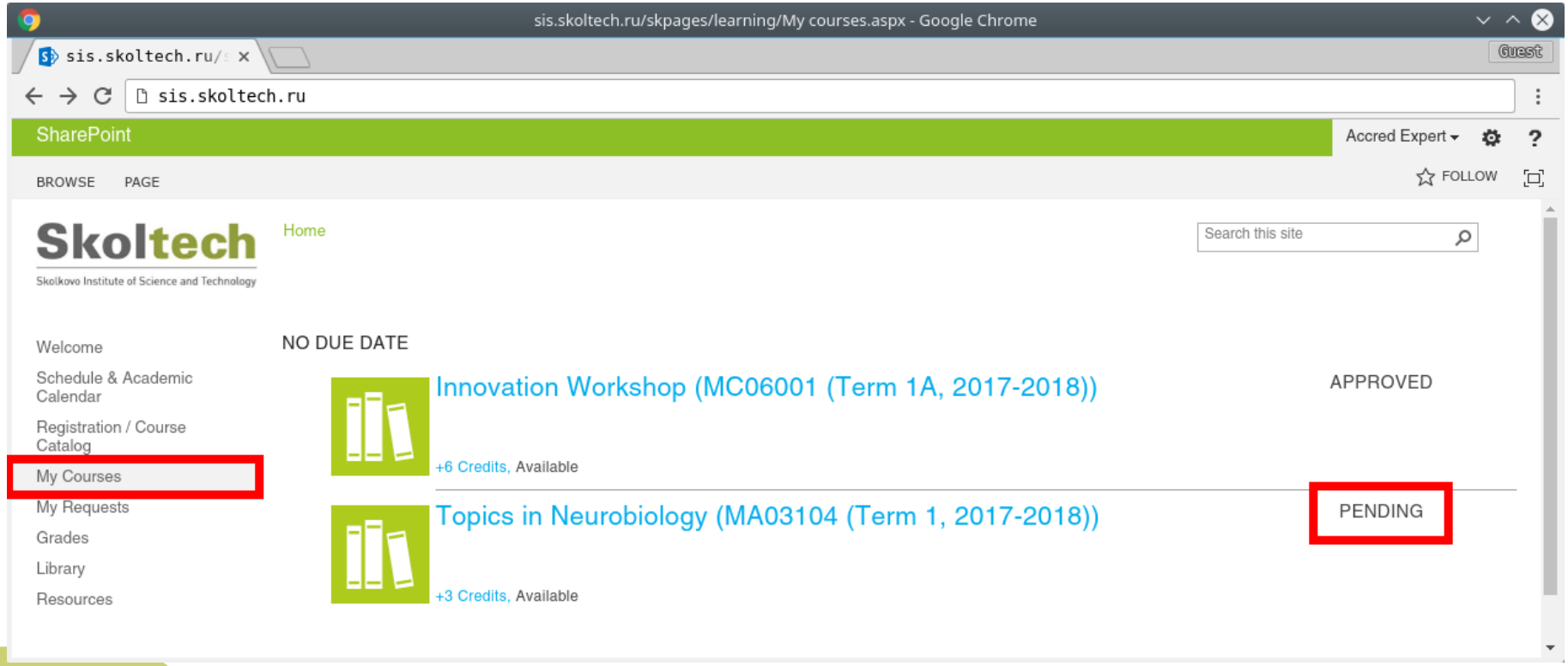
Wait for supervisor approval



SIS: Drop a Course

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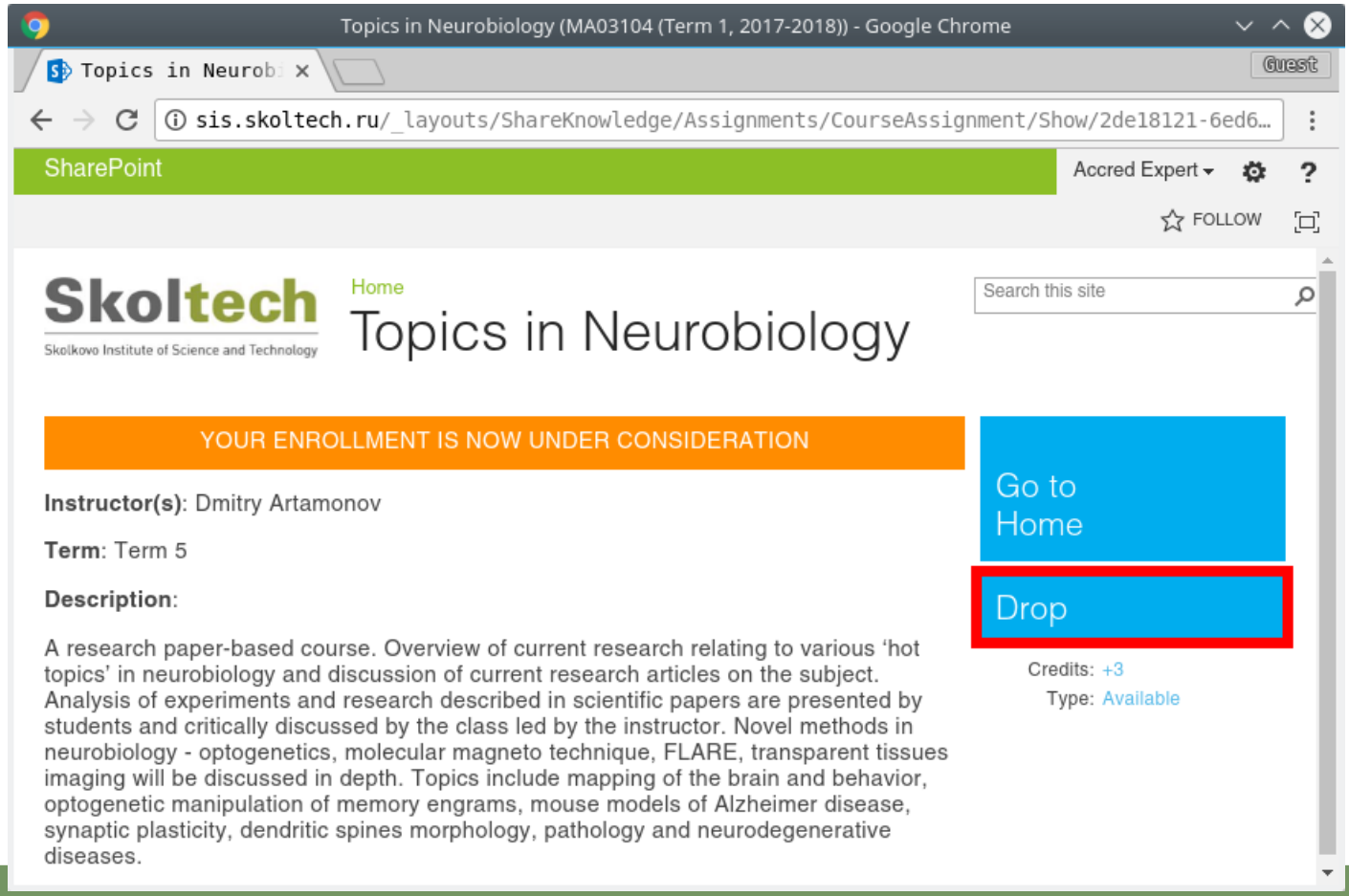
Find course under "My Courses"



Access to Canvas

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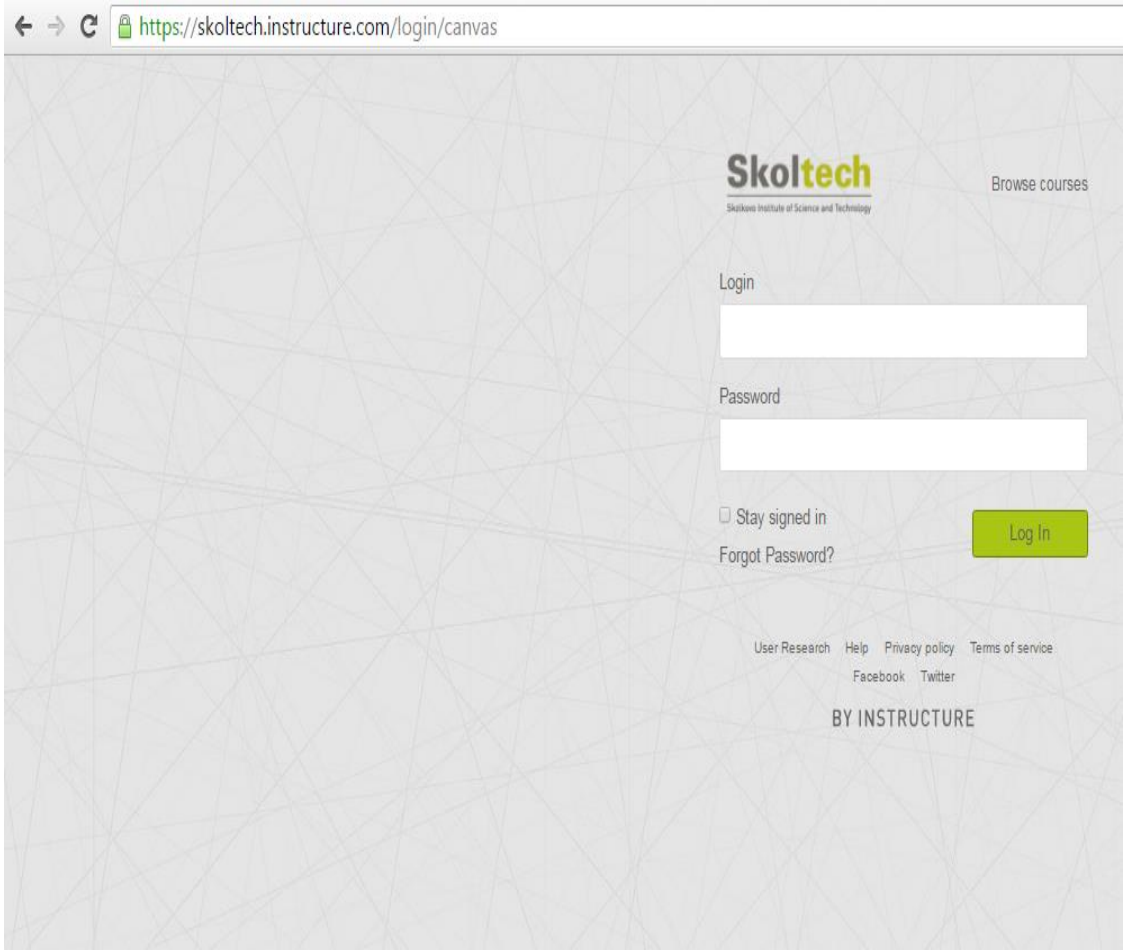

1. Follow the link https://skoltech.instructure.com/login/canvas
2. Insert your username (your email alias) and password to Skoltech Services
3. Review **NOTIFICATION** settings and add **PHOTO**
4. When the terms starts, please check your you **SPAM folder** on daily basis, as your Gmail spam filter can block Canvas notifications

Canvas (LMS): Course Materials

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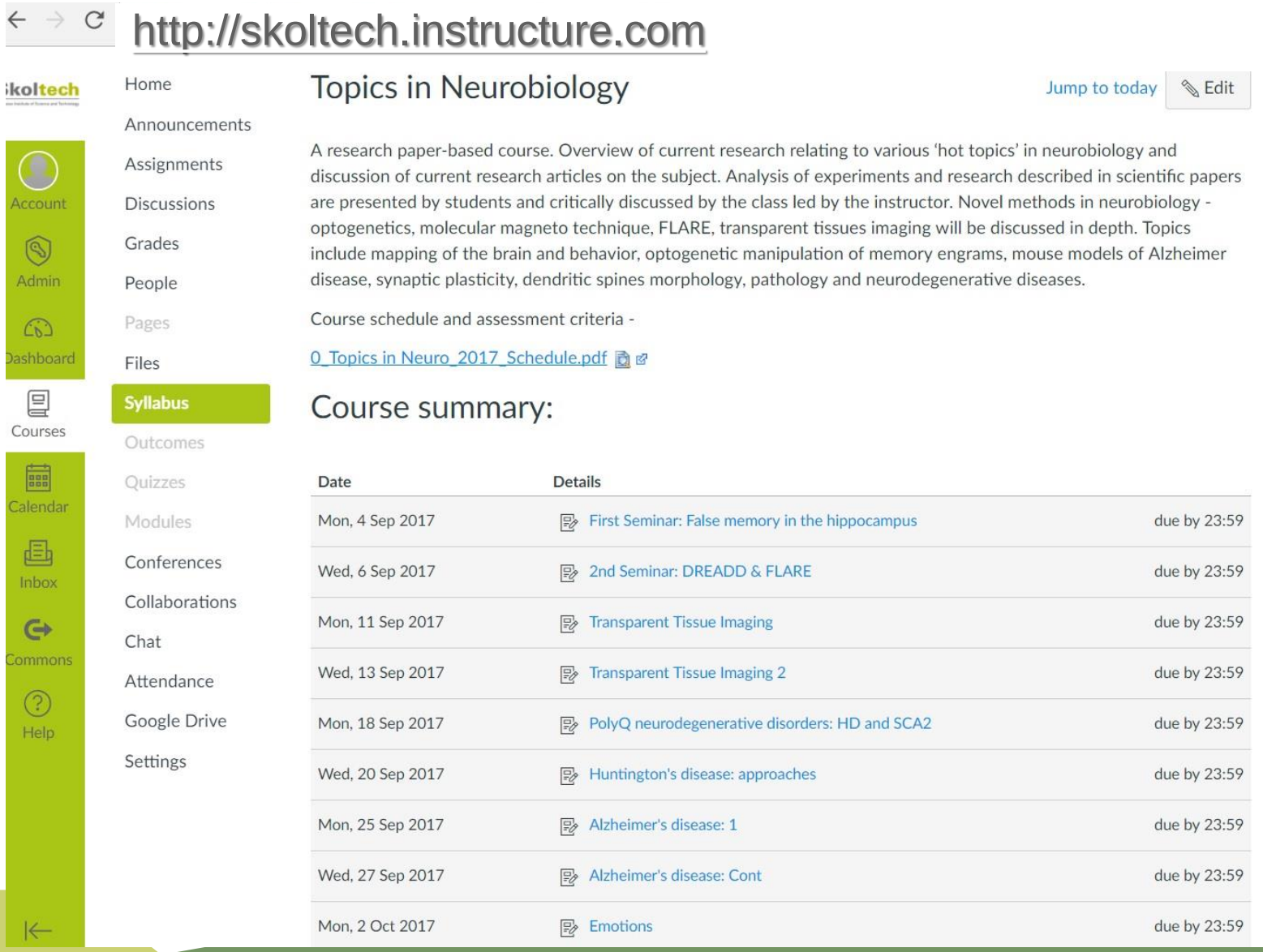
http://skoltech.instructure.com



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Skoltech Library

October 2017

Skoltech library – library page

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www.skoltech.ru/en/education/library/

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- About Skoltech Education
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- Educational Partners
- Academic Calendar
- Course Catalogue
- Academic Term Scheduling
- Energy PhD seminar
- Library
- Software for Students
- Contact

Home > Education > Library Resources

Library Resources

Students have access to the information systems and information and telecommunications networks.

Library catalogue (go to)

Search

Skoltech faculty, students and employees have direct access to following databases:

- IEEE within the Skoltech network
- Scopus within the Skoltech network
- Springer within the Skoltech network
- eLibrary within the Skoltech network
- ScienceDirect. To access ScienceDirect you need to register your own account using Skoltech email address when you are in the Skoltech network at the website.
- Wiley Full Journal collection. Subscription in progress. Please contact the librarian if you need a particular paper. We apologize for the temporary inconvenience.
- HeinOnline within the Skoltech network (click "Login"-"Heinonline")
- Web of Knowledge within the Skoltech network

Seminar: Planets, Comets, Galaxies and Beyond: a Journey Through Our Universe

Presentation of Universal Robots

За гранью дисциплин - Found in Translation

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Skoltech library service – what we do

Answer enquiries

Books borrowing

Help you to use databases and access content

Advise on research including search for particular papers, books and reports

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Services: Physical books library

Based in room 409

Open Mo-Fr 9AM-12PM – Limited open hours

More than 500 books

Library catalogue available at library web page

Librarian (Ivan Smagin) is always accessible via email library@skoltech.ru

or by phone +7 916 555-09-27

Services: Borrowing books

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You may borrow up to 6 books at a time

Standard loans – you can have them up to 4 weeks and renew via email after

One week loans for most required books

Services: databases

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Full text journal databases

ScienceDirect, ·Springer, IEEE, Wiley Full Journal collection, Nature, Institute of Physics, American Physical society, American Institute of Physics, Royal Society of Chemistry, Ebsco Energy & Power Source , HeinOnline

Bibliographic databases

Scopus, Web of Knowledge, MathSciNet, eLibrary

Analytical tools

InCites Journal Citation Reports, InCites Essential Science Indicators

Patent database Cipher

At the page you can also find Skoltech single search access point to our online and print collections. Using single search you can also dynamically rank, filter and categorize your search results.

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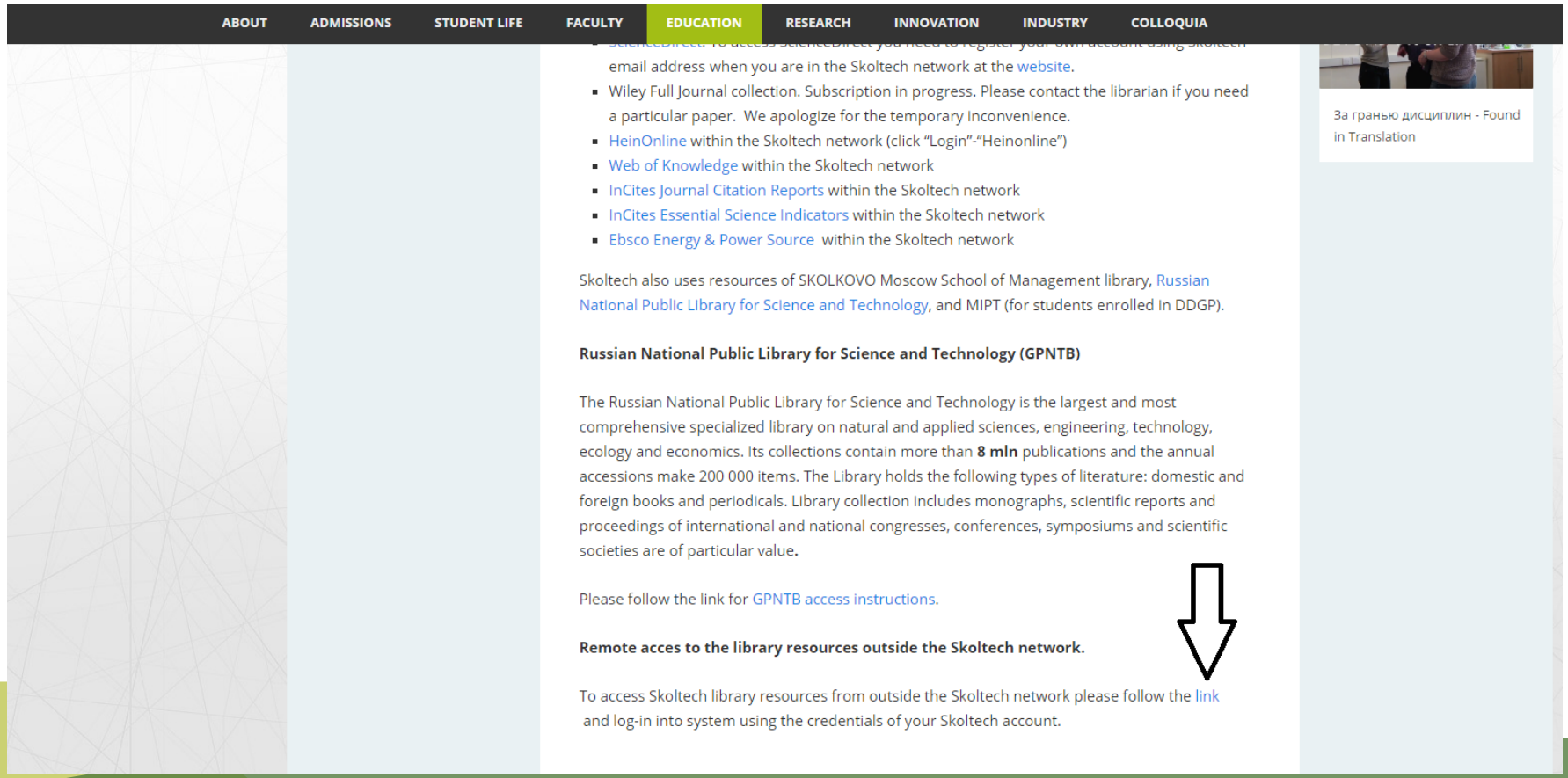
Services: remote access to databases

Remote access via http://proxylib.skoltech.ru:2048/login (log-in using the credentials of your Skoltech account)



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Thank you!

PhD Thesis Requirements

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PhD Program	PhD Degree Requirements
Mathematics and Mechanics	2 papers in WoS indexed journals + 2 reputable conference presentations
Physics	2 papers in WoS indexed journals + 2 reputable conference presentations
Materials Science and Engineering	2 papers in WoS indexed journals + 2 reputable conference presentations
Life Sciences	2 papers in WoS indexed journals + 2 reputable conference presentations IF>2, at least one first/shared first/corresponding author publication. No review papers are accepted towards the requirement.
Computational and Data Science and Engineering	3 peer-reviewed publications from which 2 in WoS/Scopus indexed journals/conference proceedings, 2 publications should be published either (i) in Q1/Q2 journals or (ii) published in conference proceedings having CORE rating A/A* or (iii) belong to the list of journals and conferences specially selected by the PhD program committee, and 1 publication as the main (first/shared first/corresponding) author of the publication
Engineering Systems	3 WoS / Scopus papers (or 2 WoS/Scopus papers and patent) incl. 2 reputable conference presentations
Petroleum Engineering	3 WoS / Scopus papers (or 2 WoS/Scopus papers and patent) incl. 2 reputable conference presentations