

Course Syllabus

Course Title

English. Candidate Exam

Course Title (in Russian)

Английский язык. Кандидатский экзамен

Lead Instructor

Tikhomirova, Elizaveta

1. Annotation

Course Description

This is a blended meta-course for the English Qualification Exam needed for the Russian PhD Degree. The Exam is designed as a multidisciplinary conference where the participants present results of their PhD research structured according to the general principles of conference materials submission, peer review, resubmission, presentation, and discussion.

The goal of the Exam is Academic Communication, so the participants should demonstrate the ability to present their research results in front of a multidisciplinary audience and deliver the key ideas in good Academic English in terms of vocabulary, grammar and style.

Pre-exam/ pre-conference activities, such as material submissions and peer reviews, take place fully online. They include: Project proposal V1+ 2 Peer Reviews; a 2-minute video annotation V1 + peer review; and a stack of presentation slides V1+ peer review. Version 2 of the Proposal, video annotation and the slides should be improved using the comments of the Instructor and the peers.

On the Examination Day, students make their presentations and participate in the discussion in person in front of the Examination Committee and a group of peers.

Failure to submit an assignment by the due date may result in the loss of the grade.

The participants will practice a variety of academic skills:

- Planning and designing a well-structured and balanced presentation
- Formulating and negotiating the research ideas through the process of writing and peer editing.
- Communicating research-related ideas to a multi-disciplinary audience.
- Presentation skills: the ability to deliver the message using a variety of rhetorical and stylistic tools.
- Discussion skills: the ability to tackle a variety of questions from the audience. The ability to pose questions to the presenters.

The grade is counted towards the PhD Qualification.

Course Description (in Russian)

Квалификационный экзамен по английскому языку необходим для получения ученой степени Кандидата наук по российскому законодательству. Мета-курс представляет собой междисциплинарную научную конференцию, на которой соискатели докладывают результаты своих диссертационных исследований, и включает соответствующие этапы: подача материалов, рецензирование, подача исправленных материалов, презентация и участие в прениях.

Главная цель экзамена - научная коммуникация на английском языке, так что участники должны

продемонстрировать умение выступать с научным докладом перед междисциплинарной аудиторией, используя академический регистр английского языка (словарный запас, грамматика, стиль).

Предэкзаменационный этап/ подготовка к конференции - подача материалов и рецензирование - проходит полностью онлайн. На этой стадии необходимо подать проект доклада + 2 рецензии; записать двухминутную видео-аннотацию+ рецензию; предоставить слайды презентации и рецензию. Вторая версия материалов исправляется и дополняется на основании замечаний преподавателя и полученных рецензий.

Экзамен для группы соискателей проводится в форме научной конференции (доклад+обсуждение) очно в присутствии экзаменационной комиссии.

Для каждого задания существуют строгие временные рамки, несоблюдение которых может привести к прекращению участия в данном курсе и неудовлетворительной оценке.

Участники будут уметь:

- Планировать и создавать структурированные и визуально сбалансированные презентации;
- Формулировать научные идеи и излагать их в письменной форме;
- Рецензировать работы коллег;
- Выступать с докладом на тему диссертации перед междисциплинарной аудиторией;
- Использовать риторические и стилистические приемы в выступлении;
- Участвовать в обсуждении на английском языке.

2. Basic Information

Course Academic Level PhD

Number of ECTS credits 3

Course Prerequisites / Recommendations

PhD students of years 2, 3 and 4 are encouraged to take the Exam in Terms 1, 2 and 3, 4 and in the Summer term.

PhD students of year 1 may take the Exam no sooner than in term 4, provided they have enough data to report.

Type of Assessment Graded

Mapping from grades to percentage:

A:	80
B:	76
C:	66
D:	56
E:	46
F:	0

Term Term 1 Term 2 Term 3 Term 4
Summer Term

Students of Which Programs do You Recommend to Consider this Course as an Elective?

BSc Programs	Masters Programs	PhD Programs
		All PhD Programs

Maximum Number of Students

	Maximum Number of Students
Overall:	24
Per Group (for seminars and labs):	24

3. Course Content

Topic	Summary of Topic	Contact Hours: Lectures	Contact Hours: Seminars	Contact Hours: Labs	Non-contact Hours: Student's Independent Study
1. PRE-EXAM Assignment. PROJECT PROPOSAL_Version 1	<p>Write a Project Proposal using the template.</p> <p>The ultimate goal is Academic Communication in a cross-disciplinary setting, so the material should be adjusted accordingly.</p>		5		3
2. PRE-EXAM Assignment. Peer Reviews of two Project Proposals.	<p>Peer review two Proposals using Peer Review Guidelines.</p> <p>The goal is to provide constructive criticism of the peer's Proposal which could be used to improve the initial text.</p>		5		3
3. PRE-EXAM Assignment. A two-minutes video-abstract. Version 1 + Peer Review	<p>Make a 2-min video abstract, i.e., an overview of the proposed presentation. The goal is to describe verbally the scope and results of the Project. No visual support is required at this point.</p> <p>Use Presentation Grading Criteria to make a peer review of one video annotation by your peer.</p> <p>The goal is to provide constructive criticism of the peer's video annotation which could be used to improve the video annotation.</p>		5		3
4. Presentation Slides Version 1 + Peer Review	<p>Upload Version 1 of your Presentation Slides for a 7-min presentation. Use Presentation Grading Criteria as a guideline for what is expected in terms of content and layout.</p> <p>Peer Review one presentation using Grading criteria as guidelines for your assessment. The comments should help your colleague to improve their assignment.</p>		5		3
5. PRE-EXAM Assignment. PROJECT PROPOSAL_FINAL Version	<p>Use comments and suggestions from your peers and the feedback from the Instructor to edit the text and produce the Final version of your Proposal.</p>		5		3

Topic	Summary of Topic	Contact Hours: Lectures	Contact Hours: Seminars	Contact Hours: Labs	Non-contact Hours: Student's Independent Study
6. PRE-EXAM Assignment. A two-minute self-video. Final Version	Use the feedback from your peers and the Instructor to perfect the presentation. Make a recording and submit by the due date.		5		3
7. Presentation Slides. Final version.	Use the feedback to polish the Presentation. Upload the Final version of the slides by the due date.		5		3
EXAMINATION_Multidisciplinary Conference	<p>Procedure:</p> <p>Each PhD student should make a presentation (7 minutes) based on his/her research area of interest in front of a multi-disciplinary audience followed by a discussion. The presenter is expected to demonstrate a variety of academic skills:</p> <ul style="list-style-type: none"> - Planning and designing a well-structured and balanced presentation - Formulating and negotiating the research ideas through the process of writing and peer editing. - Communicating research-related ideas to a multi-disciplinary audience. - Presentation skills: the ability to deliver the message using a variety of rhetorical and stylistic tools. - Discussion skills: the ability to tackle a variety of questions from the audience. <p>Content:</p> <p>A topic within the student's broad area of research interests.</p>		10		15

4. Learning Outcomes

Skoltech Learning Outcomes are indicated as per [Skoltech Learning Outcomes Framework](#).

1. FUNDAMENTAL KNOWLEDGE

1.4. INTERDISCIPLINARY THINKING, KNOWLEDGE STRUCTURE AND INTEGRATION

1.5. SOCIAL AND HUMAN SCIENCES

2.1. COGNITION AND MODES OF REASONING

2.1.1. Analytical reasoning and problem solving

2.1.2. System thinking

2.1.3. Creative thinking

2.1.5. Critical thinking and meta-cognition

2.2. ATTITUDES AND LEARNING PROCESS

2.2.3. Responsibility, intensity, perseverance, urgency and will to deliver

2.2.4. Resourcefulness, flexibility and an ability to adapt

2.2.5. Self-awareness and a commitment to self-improvement, lifelong learning and educating

2.3. ETHICS, EQUITY AND OTHER RESPONSIBILITIES

2.3.1. Ethical action, integrity and courage

2.3.3. Equity and diversity

2.3.4. Trust and loyalty

2.3.6. Commitment to social and professional behavior

3.1. COMMUNICATIONS IN INTERNATIONAL ENVIRONMENTS

3.1.1. Communications strategy and structure

3.1.2. Written, electronic and graphical communication

3.1.3. Oral presentation and discussion

3.1.4. Inquiry, listening and dialogue

3.1.5. Communications in English in scientific, business and social settings

3.1.6. Effective interaction in different cultural and international settings

3.3. COLLABORATION AND CHANGE

3.3.2. Appreciating different roles, perspectives and interests

3.3.5. Bringing about intentional change

5. Assignments and Grading

Physical Attendance Requirement 100
(% of classes)

In-person Attendance Requirement Comment

The students are expected to be present during the examination day for the duration of their assigned group exam.

Assignment Type	Assignment Summary	% of Final Course Grade
Other	<p>1. PRE-EXAM Assignment. PROJECT PROPOSAL_Version 1 Write Version 1 of your Proposal using the template and upload by the DUE DATE. The ultimate goal is Academic Communication in a cross-disciplinary setting, so the material should be adjusted accordingly.</p> <p>2. PRE-EXAM Assignment. Peer Reviews of two Project Proposals. Peer review two Proposals using Peer Review Guidelines. The goal is to provide constructive criticism of the peer's Proposal which could be used to improve the initial text.</p> <p>3. PRE-EXAM Assignment. A two-minutes video- abstract. Version 1 + Peer Review Make a 2-min video abstract, i.e., an overview of the proposed presentation. The goal is to describe verbally the scope and results of the Project. No visual support is required at this point. Use Presentation Grading Criteria to make a peer review of one video annotation by your peer. The goal is to provide constructive criticism of the peer's video annotation which could be used to improve the video annotation.</p> <p>4. Presentation Slides Version 1 + Peer Review Upload Version 1 of your Presentation Slides. Use Presentation Grading Criteria as a guideline for what is expected of the slides in terms of content and layout. Peer Review one presentation using Grading criteria as guidelines for your assessment. The comments should help your colleague to improve their assignment.</p> <p>5. PRE-EXAM Assignment. PROJECT PROPOSAL_FINAL Version Use comments and suggestions from your peers and the</p>	50

	<p>feedback from the Instructor to edit the text and produce the Final version of your Proposal.</p> <p>6. PRE-EXAM Assignment. A two-minute self-video. Final Version</p> <p>Use the feedback from your peers and the Instructor to perfect the presentation. Make a recording and submit by the due date.</p> <p>7. Presentation Slides. Final version.</p> <p>Use the feedback to polish the Presentation. Upload the Final version of the slides by the due date.</p>	
Presentation	<p>EXAMINATION_Multidisciplinary Conference</p> <p>Procedure:</p> <p>Each PhD student should make a presentation (7 minutes) based on his/her research area of interest in front of a multidisciplinary audience followed by a discussion. The presenter is expected to demonstrate a variety of academic skills:</p> <ul style="list-style-type: none"> - Planning and designing a well-structured and balanced presentation - Formulating and negotiating the research ideas through the process of writing and peer editing. - Communicating research-related ideas to a multi-disciplinary audience. - Presentation skills: the ability to deliver the message using a variety of rhetorical and stylistic tools. - Discussion skills: the ability to tackle a variety of questions from the audience. <p>Content:</p> <p>A topic within the student's broad area of research interests.</p>	50

6. Assessment Criteria

Assignment 1 Type

Other

Sample of Assignment 1

Project Proposal

Or Upload Sample of Assignment 1

Sample of Assignment 1

Assessment Criteria for Assignment 1

See "Writing Grading Criteria" in FILES

Assignment 2 Type

Other

Sample of Assignment 2

Peer Review

Assessment Criteria for Assignment 2

See Peer Review Guidelines in FILES

Assignment 3 Type

Other

Sample of Assignment 3

Video Abstract is a 2-mi self-video summary of the proposed research. It should contain a brief introduction to the topic, research question, goals, methods, results and discussion elements.

Assessment Criteria for Assignment 3

See Presentation Grading Criteria in FILES

Assignment 4 Type

Other

Sample of Assignment 4

Presentation Slides

Assessment Criteria for Assignment 4

See Presentation Grading Criteria in FILES

7. Textbooks and Internet Resources

You can request at most two required textbooks. Additionally, you can suggest up to nine recommended textbooks.

Required Textbooks	ISBN-13 (or ISBN-10)
English for Academic Research	978-3-319-26094-5

Recommended Textbooks	ISBN-13 (or ISBN-10)
"English For Writing Research Papers" by Adrian Wallwork (2016)	978-3-319-26094-5

8. Facilities

9. Additional Notes

Comments

English Candidate Exam committees` composition
All Committee members are appointed by the Order of the Skoltech President.

Committee № 1, “Computational and Data Science and Engineering” program:

Chair – Elizaveta Tikhomirova, professor, Skoltech.

Deputy chair – Anastasia Sharapkova, PhD, MSU.

Member:

Grigory Kabatiansky, D. Sc., Skoltech.

Committee № 2, “Engineering Systems” program:

Chair – Elizaveta Tikhomirova, professor, Skoltech.

Deputy chair – Anastasia Sharapkova, PhD, MSU.

Member:

Grigory Kabatiansky, D. Sc., Skoltech.

Committee № 3, “Life Sciences” program:

Chair – Elizaveta Tikhomirova, professor, Skoltech.

Deputy chair – Anastasia Sharapkova, PhD, MSU.

Members:

Grigory Kabatiansky, D. Sc. , Skoltech;

Vera Rybko, PhD, Skoltech.

Committee № 4, “Materials Science and Engineering” program:

Chair – Elizaveta Tikhomirova, professor, Skoltech.

Deputy chair – Anastasia Sharapkova, PhD, MSU.

Members:

Grigory Kabatiansky, D. Sc. , Skoltech;

Alexey Salimon, PhD, Skoltech.

Committee № 5, “Mathematics and Mechanics” program:

Chair – Elizaveta Tikhomirova, professor, Skoltech.

Deputy chair – Anastasia Sharapkova, PhD, MSU.

Member:

Grigory Kabatiansky, D. Sc., Skoltech.

Committee № 6, “Petroleum Engineering” program:

Chair – Elizaveta Tikhomirova, professor, Skoltech.

Deputy chair – Anastasia Sharapkova, PhD, MSU.

Members:

Grigory Kabatiansky, D. Sc., Skoltech;

Ekaterina Muravleva, PhD, Skoltech.

Committee № 7, “Physics” program:

Chair – Elizaveta Tikhomirova, professor, Skoltech.

Deputy chair – Anastasia Sharapkova, PhD, MSU.

Members:

Grigory Kabatiansky, D. Sc. , Skoltech;

Ilia Fradkin, PhD, Skoltech.

Committee № 8, “AgroBiotechnologies and Engineering” program:

Chair – Elizaveta Tikhomirova, professor, Skoltech.

Deputy chair – Anastasia Sharapkova, PhD, MSU.

Member:

Elena Martynova, PhD, Skoltech.

"The Exam Committee meets during the final exam and comes to a common decision on the final grade for the exam - 40% of total course grade. If a common decision cannot be made, then each committee member grades independently, and the final grade is determined by the rounded average."

The proposed course 1) has explicit academic content and requirements for receiving credits, 2) is in alignment with the program's learning outcomes, 3) adheres to policies and Skoltech regulations.

Lead Instructor confirms