

**МИНОБРНАУКИ РОССИИ**  
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**Ярославский государственный университет им. П.Г.Демидова**

**УЧЕБНО-МЕТОДИЧЕСКИЕ МАТЕРИАЛЫ**  
**ПО ДИСЦИПЛИНЕ**

*ИНОСТРАННЫЙ ЯЗЫК ДЕЛОВОГО И ПРОФЕССИОНАЛЬНОГО  
ОБЩЕНИЯ*

Направление подготовки (специальность):

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Образовательная программа

Искусственный интеллект и компьютерные науки

**очная форма обучения**

Составитель:

**ТИТОВА Л. А., К.Э.Н.,**  
**ДОЦЕНТ ИНСТИТУТА ИНОСТРАННЫХ ЯЗЫКОВ**  
**ЯРГУ ИМ. П.Г. ДЕМИДОВА**

г. Ярославль

## **Перечень основной и дополнительной учебной литературы, необходимой для освоения дисциплины (модуля)**

### **Основная литература:**

1. Английский язык для магистров : учебное пособие / В.П. Фролова, Л.В. Кожанова, Е.А. Молодых, С.В. Павлова ; Министерство образования и науки РФ, ФГБОУ ВПО «Воронежский государственный университет инженерных технологий». - Воронеж : Воронежский государственный университет инженерных технологий, 2013. - 120 с. : табл. - Библиогр. в кн. ; То же [Электронный ресурс].  
[https://biblioclub.ru/index.php?page=book\\_red&id=255897](https://biblioclub.ru/index.php?page=book_red&id=255897)
2. И. К. Бугрова Практика перевода. Выпуск 1. ЯрГУ, 2015. [Электронный ресурс]. <http://www.lib.uniyar.ac.ru/edocs/iuni/20152102.pdf>
3. Рубцова, М. Г., Учимся переводить с английского языка на русский: практическое пособие / М. Г. Рубцова, М., Астрель, 2011, 479с.

### **Дополнительная литература:**

1. Английский язык: практика ведения дискуссий: практикум для студентов, обучающихся по направлению Прикладная математика и информатика / И. К. Бугрова; Яросл. гос. ун-т им. П. Г. Демидова, Науч.-метод. совет ун-та. - Ярославль: ЯрГУ, 2012. - 66 с. – [Электронный ресурс]  
<http://www.lib.uniyar.ac.ru/edocs/iuni/20122105.pdf>
2. Введение в деловой английский для специальности ПИЭ: метод. указания / И. К. Бугрова; Науч.-метод. Совет ун-та; Яросл. гос. ун-т им. П. Г. Демидова. - Ярославль: Б.и., 2009. - 50 с. [Электронный ресурс]  
<http://www.lib.uniyar.ac.ru/edocs/iuni/20092102.pdf>

## **Учебно-методическое обеспечение самостоятельной работы обучающихся по дисциплине (модулю)**

### **Литература**

1. Как написать математическую статью по-английски. Сосинский А.Б. М: Изд-во «Факториал Пресс», 2000.
2. Jerzy Trzeciak Writing mathematical papers in English , a practical guide, European Mathematical Society, Gdansk, 1995.

Также для подбора учебной литературы рекомендуется использовать широкий спектр интернет-ресурсов:

1. Электронно-библиотечная система «Университетская библиотека online» ([www.biblioclub.ru](http://www.biblioclub.ru)) - электронная библиотека, обеспечивающая доступ к наиболее востребованным материалам-первоисточникам, учебной, научной и художественной литературе ведущих издательств (\*регистрация в электронной библиотеке – только в сети университета. После регистрации работа с системой возможна с любой точки доступа в Internet.).
2. Информационная система "Единое окно доступа к образовательным ресурсам" (<http://window.edu.ru/library>).

**Перечень ресурсов информационно-телекоммуникационной сети «Интернет», необходимых для освоения дисциплины (модуля), включая перечень информационных справочных систем (при необходимости)**

1. Электронная библиотека учебных материалов ЯрГУ ([http://www.lib.uniyar.ac.ru/opac/bk\\_cat\\_find.php](http://www.lib.uniyar.ac.ru/opac/bk_cat_find.php)).
2. Информационная система "Единое окно доступа к образовательным ресурсам" (<http://www.edu.ru> (раздел Учебно-методическая библиотека) или по прямой ссылке <http://window.edu.ru/library>).
3. Электронно-библиотечная система «Университетская библиотека online» ([www.biblioclub.ru](http://www.biblioclub.ru)).
4. Словари [www.slovari.yandex.ru](http://www.slovari.yandex.ru)
5. [www.medialab.uniyar.ac.ru](http://www.medialab.uniyar.ac.ru)
6. [www.scientificamerican.com](http://www.scientificamerican.com)
7. [corp7.uniyar.ac.ru](http://corp7.uniyar.ac.ru)

**Перечень информационных технологий, используемых при изучении дисциплины, включая программное обеспечение**

В процессе осуществления образовательного процесса используются:

- для формирования текстов материалов для промежуточной и текущей аттестации – программы Microsoft Office,
- для поиска учебной литературы библиотеки ЯрГУ – Автоматизированная библиотечная информационная система "БУКИ-NEXT" (АБИС "Буки-Next").

**Учебно-методические указания и рекомендации  
к изучению тем лекционных и практических занятий,  
самостоятельной работе студентов**

Содержание дисциплины

Наименование раздела дисциплины	Название темы с кратким содержанием
Интервью при устройстве на работу. Analytic basis underpinning the PCST framework. Грамматика 1 Аудирование 1	Повторение видо-временных форм глагола, модальные глаголы, модальные глаголы с перфектным инфинитивом. Герундий.
Аудирование 2 Deep reinforcement learning . Реферирование отдельных аспектов лекции	
Аудирование 3 An e-Encyclopedia for Medical Imaging Technology Грамматика 2	Герундиальный оборот. Типы придаточных предложений.
Грамматика 3 Чтение 1 On Constructing Intellectual Systems in Ternary Logic.	Глагол и его формы (продолжение). Понятие о свободных и устойчивых словосочетаниях. Инфинитив: Формы и функции. Объектный инфинитивный оборот.
Грамматика 4 Индивидуальное чтение.	Степени сравнения прилагательных и наречий. Субъектный инфинитивный оборот. Правило ряда.
Грамматика 5 Говорение 1 Чтение 2 Python	Согласование времен. Косвенная речь
Грамматика 6 Аудирование 4 Machine recognition of speech	Понятие об общенаучной лексике.
Грамматика 7 Turing's tests. Чтение 3	Причастие 1,2. Зависимые и независимые причастные обороты.
Грамматика 8 Индивидуальное чтение. Повторение грамматики за предыдущий семестр.	Произношение математических символов и формул. Клише научной речи.
Итого за 1 семестр:	
Аудирование 5 Лекция по выбору группы. Говорение 3 Грамматика 9	Сослагательное наклонение. 3 типа условных придаточных.
Грамматика 10	Служебные слова
Реферирование. Прием индивидуального чтения.	
Индивидуальное чтение. Грамматика.	
Семинар 1 по видео лекции (тема согласуется со студентами и берется из новых поступлений в Интернете.) Общая тема: искусственный интеллект.	

Наименование раздела	Название темы с кратким содержанием
Индивидуальное чтение	

*Текущий* контроль осуществляется в течение семестра в виде:

- контрольных работ
- устного опроса
- контроля индивидуального чтения
- реферата,
- проверки аудирования
- семинаров
- пересказа
- обсуждения
- опроса диалогов
- зачет по заданиям к лекциям
- чтения и перевода

### Проверка аудирования

**Раздел 1. Аудирование**  
**Task:** Listen to the lecture .Study the questions below, write down 10 questions more, be ready to ask and answer the questions with your fellow-students. Watch the video and be ready to make use of the offered advice.

<https://www.youtube.com/watch?v=nhTcuUyLGOE>

*Additional articles:*

<http://www.forbes.com/sites/jacquelynsmith/2013/01/11/how-to-ace-the-50-most-common-interview-questions/#33cbb0704873>

### The 50 Most Common Interview Questions:

1. What are your strengths?
2. What are your weaknesses?
3. Why are you interested in working for *[insert company name here]*?
4. Where do you see yourself in 5 years? 10 years?
5. Why do you want to leave your current company?
6. Why was there a gap in your employment between *[insert date]* and *[insert date]*?
7. What can you offer us that someone else can not?
8. What are three things your former manager would like you to improve on?
9. Are you willing to relocate?
10. Are you willing to travel?
11. Tell me about an accomplishment you are most proud of.

12. **Tell me about a time you made a mistake.**
13. **What is your dream job?**
14. **How did you hear about this position?**
15. **What would you look to accomplish in the first 30 days/60 days/90 days on the job?**
16. **Discuss your resume.**
17. **Discuss your educational background.**
18. **Describe yourself.**
19. **Tell me how you handled a difficult situation.**
20. **Why should we hire you?**
21. **Why are you looking for a new job?**
22. **Would you work holidays/weekends?**
23. **How would you deal with an angry or irate customer?**
24. **What are your salary requirements?**
25. **Give a time when you went above and beyond the requirements for a project.**
26. **Who are our competitors?**
27. **What was your biggest failure?**
28. **What motivates you?**
29. **What's your ambition in life?**
30. **Who's your mentor?**
31. **Tell me about a time when you disagreed with your boss.**
32. **How do you handle pressure?**
33. **What is the name of our CEO?**
34. **What are your career goals?**
35. **What gets you up in the morning?**
36. **What would your direct reports say about you?**

37. What were your bosses' strengths/weaknesses?
38. If I called your boss right now and asked him what is an area that you could improve on, what would he say?
39. Are you a leader or a follower?
40. What was the last book you've read for fun?
41. What are your co-worker pet peeves?
42. What are your hobbies?
43. What is your favorite website?
44. What makes you uncomfortable?
45. What are some of your leadership experiences?
46. How would you fire someone?
47. What do you like the most and least about working in this industry?
48. Would you work 40+ hours a week?
49. What questions haven't I asked you?
50. What questions do you have for me?

Раздел 2 Аудирование 2 **Deep reinforcement learning.**

Task: Listen to the lecture, make up a plan, write out new words, speak on the key ideas.

[http://videlectures.net/rldm2015\\_silver\\_reinforcement\\_learning](http://videlectures.net/rldm2015_silver_reinforcement_learning)

Раздел 3 Аудирование 3 *An e-Encyclopedia for Medical Imaging Technology*

[http://videlectures.net/medicon07\\_tabakov\\_emitel](http://videlectures.net/medicon07_tabakov_emitel)

Task: Listen to the lecture, make up a plan, write out new words, speak out on the key ideas.

Раздел 7 Аудирование 4

Task : Listen to the lecture , make up a plan, write out new words, speak on the key ideas.

[http://videlectures.net/clspss09\\_kingsbury\\_mrs/](http://videlectures.net/clspss09_kingsbury_mrs/)

Раздел 10 Аудирование 5

Лекция по выбору группы. <http://videlectures.net> 1 час.  
[http://videlectures.net/kdd2014\\_domingos\\_scale\\_modeling/](http://videlectures.net/kdd2014_domingos_scale_modeling/)

[http://videolectures.net/kdd2013\\_varian\\_search\\_engine/](http://videolectures.net/kdd2013_varian_search_engine/)

[http://videolectures.net/nips2012\\_duchi\\_learning/](http://videolectures.net/nips2012_duchi_learning/)

[http://videolectures.net/mlss04\\_hofmann\\_irtm/](http://videolectures.net/mlss04_hofmann_irtm/)

[http://videolectures.net/mitworld\\_malvar\\_radp/](http://videolectures.net/mitworld_malvar_radp/)

[http://videolectures.net/wsdm2011\\_shum\\_bdm/](http://videolectures.net/wsdm2011_shum_bdm/)

Task:

1. Listen to the lecture. Make up a plan
2. Pay attention to the parentheses, linking words, conjunctions. Make sure you use them in your discussion.

### **Чтение и перевод. Пересказ**

Раздел 4. Чтение1.

#### **On Constructing Intellectual Systems in Ternary Logic.**

Being close to the formal logic and natural reasoning, the production knowledge model is a popular attractive means for using in intelligent systems. There are also some drawbacks in the production model based on implications, which necessarily imply contradictions. Attempts to rectify drawbacks of the two-valued logic were made by J. Lukasiewicz [1], L. Carroll [2], and N. P. Brusentsov [3], who laid the basis for a three-valued logic capable of operating not only with the values “truth” and “false”, but also with the third value “unknown,” “possible,” “necessarily yes,” “necessarily no,” and so on. Another way to eliminate drawbacks of the two-valued logic is provided by fuzzy logic (soft computing). It was proposed by L. Zadeh and involves a continuous scale of values between the “truth” and “false” states. Under this approach, two- and three-valued logics are particular cases of fuzzy logic. The apparent disadvantages of fuzzy systems are the absence of standard methods for transition to fuzziness and back (fuzzification and defuzzification) and computational complexity. As a result, fuzzy logic is mainly used in expert systems, in which cause-and-effect relations are replaced by simple relations “external manifestations—conjecture” [4]. It is worth noting that the use of two-valued logic is acceptable in expert systems, because, in these systems, facts are usually revealed in the course of a dialog with the user, which resolves paradoxes. A three-valued logic is also useful in modern information systems. In particular, in the majority of the database management systems, fields may take the NULL value. True, under this approach, it is not possible to use such fields in SQL-queries, since no comparison operations are allowed with them. Expert systems also employ a three-valued logic: as an example we mention PRELOG (Precedence Logic Inference Interface Software), which is a precedence-based inference software used to determine a donor’s suitability for donations [5]. However, both database management systems and expert systems operate only in a closed domain, so that the use of a three-valued logic here affects only reliability of conclusions. In the meantime, the absence of a solution in some domain may be indicative of the necessity of expanding the object domain and eliminating contradictions. In intelligent systems, contradictions are eliminated by combining assumptions from closed and open worlds. However, the open-world absolutization inevitably implies that the majority of facts become incomputable due to the unbounded growth of the number of statements, which is especially important for retrievals of knowledge from the Semantic web [6]. In this regard, it seems expedient to investigate the possibility of using knowledge about the absence of solution not only to estimate the plausibility of the results obtained, but also for controlling the process of reasoning modeling.

Ex.1. Answer the questions to the text:

1. What kinds of logic are there?
2. What are the drawbacks of the two-valued logic?
3. Who laid the basis for the three-valued logic?

4. What is fuzzy logic?
5. Where can it be applied?
6. Why is information sometimes incomputable?
7. How can this problem be solved?

Ex.2 Retell the article and add information on the issue.

## Раздел 6 Чтение 2

### . A Low Level Look at Python

To understand the GIL and its implications, we must start at Python's foundations. Languages like C++ are compiled languages, so named because a program is fed in to a compiler where it is parsed according to the language's grammar, transformed into a language agnostic intermediate representation, and linked into an executable comprised of highly optimized machine code. The compiler is able to optimize the code so aggressively because it is seeing the whole program (or large, self-contained chunks) at once. This allows it to reason about interactions between different language constructs and make informed decisions about optimization.

In contrast, Python is an interpreted language. The program is fed into an *interpreter* in order to be run. The interpreter has no knowledge of the program before it is run; rather, it knows the rules of Python and is capable of dynamically applying those rules. It too has optimizations, but optimizations of a rather different class. Since the interpreter cannot reason about the program proper, most of Python's optimizations are optimizations of the interpreter itself. A faster interpreter means faster program execution "for free". That is, when the interpreter is optimized, Python programs need not change to realize the benefit.

*This is an important point, so it bears repeating. The execution speed of a Python program, all other things being equal, is directly tied to the "speed" of the interpreter. No matter how much optimization you do within your program itself, your program's execution speed is still tied to how efficiently the interpreter can execute your code. It is clear, then, why much work has been devoted to optimizing the Python interpreter. It is the closest thing to a free lunch Python programmers can get.*

Now we come to the crux of the issue. To take advantage of multi-core systems, Python must support multiple threads of execution. Being an interpreted language, Python's *interpreter* must be written in such a way so that doing so is both safe and performant. We all know the issues that multi-threaded programming can present. The interpreter must be mindful not to operate on internally shared data from different threads. It must also manage user's threads in such a way that the maximum amount of computation is being performed at all times.

What, then, is the mechanism by which data is protected from simultaneous access by different threads? The *Global Interpreter Lock*. The name is instructive. Quite literally, it is a global (in the sense of the interpreter) lock (in the sense of a mutex or similar construct) on the interpreter. This approach is certainly safe, but it has (for the new Python programmer), a startling implication: in any Python program, no matter how many threads and how many processors are present, *only one thread is being executed at any time*.

Many discover this fact by accident. Newsgroups and message boards are littered with messages from Python novices and experts alike asking "why does my newly multi-threaded Python program run slower than when it had only one thread?" Many feel silly even asking the question, since of course a program with two threads where before there was just one will be faster (assuming that the work is indeed parallelizable). In fact, the question is asked so frequently that Python experts have crafted a standard answer: "Do not use multiple threads. Use multiple processes." But this answer is even more confusing than its question. I shouldn't use multiple threads in Python? How can multi-threading in a language as popular as Python be so broken as to have experts recommending against its use? Surely I'm missing something?

Sadly, nothing has been missed. Due to the design of the Python interpreter, using multiple threads to increase performance is at best a difficult task. At worst, it will *decrease* (sometimes significantly) the speed of your program. A freshman CS undergrad could tell you what to expect when threads are all competing for a single shared resource. The results are often not pretty. That said, there are many times that multi-threading works well, and it is perhaps a testament to both the interpreter implementation and the core developers that there are not more complaints about Python's multi-threading performance.

Ex.1. Read the text and answer the questions:

1. What are compiled languages?
2. Why does the compiler optimize the code aggressively?
3. What is directly tied to the speed of the interpreter? Why?
4. Why do experts recommend using not threads but processes?
5. When do threads compete for a single shared resource? How can we solve the problem?

Ex.2. Make up a plan and retell the article.

### Раздел 8. Чтение Text Turing's Test.

Task: Read the text, write out the new words, speak out on the main points.

Turing called the original **Turing Test (TT)** the 'imitation game'. It involves limiting a human test subject to the communication level of a computer (via a computer terminal).

The computer and human communications are then contrasted by a human interrogator who is unaware which is which [22, 23]. The 'structured mistake' that makes the competing streams indistinguishable was supposed proof of equivalence of machine and human intelligence. To connect the PCST to the TT note that the Turing-Machine in the test is not embodied or embedded/situated cognition and fits into the class of computationalism. A very neat definition of computationalism comes from Randolph Beer:

*"...the theoretical claim that a system's behavior derives from its instantiation of appropriate representations and computational processes"* [31].

This definition does not exclude 'the scientist' from being artificially created using *"appropriate representations and computational processes"*. This assumes that one can completely model a modeller of the exquisitely novel and intrinsically unknown in a situation where, by definition, all novelty is forced to be characterised by existing models and all new models have to be characterised by a computationalist model for making new models, not by the (distal natural world) novelty itself. In this light computationalism is at best a very suspect principle. The idea that the original Turing Machine 'tape and tape reader/punch', which is an example of the agency shown in Fig. (2b), can even begin the PCST seems far-fetched. Based on a subsequent assessment of Turing's own attitude to the process, this is something that Turing would probably also have predicted [32]. It is for this reason that Stevan Harnad proposed an extreme upgrade to the Turing Test called the 'Total Turing Test' or TTT, which requires that:

*"The candidate must be able to do, in the real world of objects and people, everything that real people can do, in a way that is indistinguishable (to a person) from the way real people do it"* [21].

Beyond the TTT a 'Lovelace Test' (LT) was considered. This test focused on the creativity (originality) of humans as an indicator of intelligence. Various models of artificial creativity were examined in a disembodied test regime similar to the original TT. The conclusion of the work was in the negative but is a useful example of a refinement of the TTT that may have borne fruit [10]. The PCST can be viewed as an empirically viable variant of the TTT and LT obtained by choosing a single very specialised behaviour: scientific behaviour. The benefit of this choice

is that the Harnad clause '*indistinguishable (to a person)*' is scientifically verified by the PCST and the behaviour is critically dependent on Pconsciousness. With respect to 'originality' the PCST is also a variant on the LT because originality is implicit in the act of science, where the outcome the unknown novel scientific law.

### **Раздел 5,9, 12,13 Индивидуальное чтение**

. Мультимедийные средства обучения являются неотъемлемой частью работы при подготовке к индивидуальному чтению. На факультете имеется выход на сайт «Medialab» с дополнительными материалами для каждого уровня. На сайте можно найти лекции на английском языке по отраслям науки, отрывки из фильмов и учебных курсов, оптимально дополняющие основной курс. Преподаватель может порекомендовать использование источников дополнительных материалов, не ограничиваться использованием учебников и пособий, имеющихся в наличии в библиотеке, но и применять материалы из периодических и научно-популярных изданий, ресурсы сети Интернет, т.к. развитие технологий по данным специальностям значительно опережает оснащение и пополнение библиотек современной литературой. В качестве примеров таких изданий можно привести Scientific American, Time, Computerworld, The Economist, The Moscow News и сайты [www.computerworld.com](http://www.computerworld.com), [www.pcmag.com](http://www.pcmag.com), <http://n.wikipedia.org>, а также Интернет-ресурсами на сайте Medialab <http://medialab.uniya.ac.ru> (раздел Ресурсы) и сайтами для изучающих английский язык (в частности, сайтом Британского Совета [www.learningenglish.com](http://www.learningenglish.com) и сайтами компаний BBC [www.bbclearningenglish.com](http://www.bbclearningenglish.com) и Voice of America [www.voanews.com/specialenglish](http://www.voanews.com/specialenglish)). Контроль индивидуального чтения производится каждый месяц, в количестве 4000-5000 знаков без пробелов. Обязательным требованием является наличие выписанных слов с переводом, краткий пересказ содержания текста, перевод всего текста, ответ на вопросы преподавателя.

### **Опрос диалогов 1, 6**

Диалог знакомства на первом занятии и 10-минутный диалог в конце курса по проблематике всех лекций и тем. Оценивается умение выделить интересные темы и обсудить с партнером. Обязателен письменный вариант диалога и наличие в нем клише научной и разговорной речи.

### **Опрос диалогов на основе текста**

#### **Раздел 6. A Low Level Look at Python**

To understand the GIL and its implications, we must start at Python's foundations. Languages like C++ are compiled languages, so named because a program is fed in to a compiler where it is parsed according to the language's grammar, transformed into a language agnostic intermediate representation, and linked into an executable comprised of highly optimized machine code. The compiler is able to optimize the code so aggressively because it is seeing the whole program (or large, self-contained chunks) at once. This allows it to reason about interactions between different language constructs and make informed decisions about optimization.

In contrast, Python is an interpreted language. The program is fed into an *interpreter* in order to be run. The interpreter has no knowledge of the program before it is run; rather, it knows the rules of Python and is capable of dynamically applying those rules. It too has optimizations, but optimizations of a rather different class. Since the interpreter cannot reason about the program proper, most of Python's optimizations are optimizations of the interpreter itself. A faster interpreter means faster program execution "for free". That is, when the interpreter is optimized, Python programs need not change to realize the benefit.

*This is an important point, so it bears repeating. The execution speed of a Python program, all other things being equal, is directly tied to the "speed" of the interpreter. No matter how much optimization you do within your program itself, your program's execution speed is still tied to*

*how efficiently the interpreter can execute your code. It is clear, then, why much work has been devoted to optimizing the Python interpreter. It is the closest thing to a free lunch Python programmers can get.*

Now we come to the crux of the issue. To take advantage of multi-core systems, Python must support multiple threads of execution. Being an interpreted language, Python's *interpreter* must be written in such a way so that doing so is both safe and performant. We all know the issues that multi-threaded programming can present. The interpreter must be mindful not to operate on internally shared data from different threads. It must also manage user's threads in such a way that the maximum amount of computation is being performed at all times.

What, then, is the mechanism by which data is protected from simultaneous access by different threads? The *Global Interpreter Lock*. The name is instructive. Quite literally, it is a global (in the sense of the interpreter) lock (in the sense of a mutex or similar construct) on the interpreter. This approach is certainly safe, but it has (for the new Python programmer), a startling implication: in any Python program, no matter how many threads and how many processors are present, *only one thread is being executed at any time*.

Many discover this fact by accident. Newsgroups and message boards are littered with messages from Python novices and experts alike asking "why does my newly multi-threaded Python program run slower than when it had only one thread?" Many feel silly even asking the question, since of course a program with two threads where before there was just one will be faster (assuming that the work is indeed parallelizable). In fact, the question is asked so frequently that Python experts have crafted a standard answer: "Do not use multiple threads. Use multiple processes." But this answer is even more confusing than its question. I shouldn't use multiple threads in Python? How can multi-threading in a language as popular as Python be so broken as to have experts recommending against its use? Surely I'm missing something?

Sadly, nothing has been missed. Due to the design of the Python interpreter, using multiple threads to increase performance is at best a difficult task. At worst, it will *decrease* (sometimes significantly) the speed of your program. A freshman CS undergrad could tell you what to expect when threads are all competing for a single shared resource. The results are often not pretty. That said, there are many times that multi-threading works well, and it is perhaps a testament to both the interpreter implementation and the core developers that there are not more complaints about Python's multi-threading performance.

Ex.1. Read the text and answer the questions:

6. What are compiled languages?
7. Why does the compiler optimize the code aggressively?
8. What is directly tied to the speed of the interpreter? Why?
9. Why do experts recommend not to use threads but processes?
10. When do threads compete for a single shared resource/ How can we solve the problem?

Ex.2. Make up a plan and retell the article with your comments.

### **Обсуждение**

На основе текстов и лекций (разделы 5,10)

**Раздел 10.** Лекция по выбору группы. <http://videlectures.net> 1 час.

[http://videlectures.net/kdd2014\\_domingos\\_scale\\_modeling/](http://videlectures.net/kdd2014_domingos_scale_modeling/)

[http://videlectures.net/kdd2013\\_varian\\_search\\_engine/](http://videlectures.net/kdd2013_varian_search_engine/)

[http://videlectures.net/nips2012\\_duchi\\_learning/](http://videlectures.net/nips2012_duchi_learning/)

[http://videlectures.net/mlss04\\_hofmann\\_irtm/](http://videlectures.net/mlss04_hofmann_irtm/)

[http://videlectures.net/mitworld\\_malvar\\_radp/](http://videlectures.net/mitworld_malvar_radp/)

[http://videlectures.net/wsdm2011\\_shum\\_bdm/](http://videlectures.net/wsdm2011_shum_bdm/)

Task:

3. Listen to the lecture. Make up a plan
4. Pay attention to the parentheses, linking words, conjunctions/ Make sure you use them in your discussion.

### **Раздел 2, 12 . Реферирование**

Task: Study the book «Аннотирование и реферирование» Л.П. Маркушевская, Ю.А. Цапаева pp. 5 – 20 and write an abstract on one of the texts of the course (see above). Study «Практика ведения дискуссии» И.К. Бугрова ЯрГУ, 2012, pp. 26 – 29 and write an essay. (A4 a page and a half).

### **Раздел 4, 5, 13 Контрольные работы**

#### **Контрольная работа № 1**

*Translate into Russian the following sentences:*

1. Children enjoy being read to.
2. I hate being talked to like that.
3. She turned back with the feeling of being watched.
4. He is good at pleasing other people.
5. There was a rumour of the famous picture having been stolen from the museum.
6. There is nothing wrong in asking for help if you don't understand smth.
7. Gambling is much frowned upon.
8. People will gossip. There's no preventing it.
9. There's nothing like swimming in the sea on a hot July morning.
10. There's no fooling him.
11. There is no accounting for his low spirits.
12. There's no telling (knowing) what will happen next.
13. It makes no difference his coming or not.
14. It's no use complaining.
15. It's just no use all this gadding about.
16. It makes all the difference you coming today.
17. Do you fancy joining me?
18. He is a good specialist. There's no denying it.
19. There's no pleasing him.

#### **:Ex. 2 I. Choose the correct form of Gerund and the Infinitive**

1. He insists on the problem (solving, solved, being solved) at once.
2. He referred to your (doing, done, being done) the work in time.
3. They rely on the work (doing, being done, done) now.
4. Before (using, used, being used) the theorem should be discussed properly.
5. The teacher is surprised at his not (passing, passed, having passed) the exam yesterday.
6. Students (taken, taking, being taken) exams next week should come up to the teacher.
7. You can measure the force (acted, being acted, acting) upon the body.
8. The force (applied, applying) to the body was measured.
9. (Having graduated, graduating) from the Institute he began to work at an office.

#### **II. Choose sentences with the Gerund. Translate them into Russian.**

1. His work resulted in solving many problems.
2. Making these experiments we can compare the weight of elements.
3. The substances tested were described in his report.
4. Newton's having formulated this law was of great importance.
5. The idea of creating the method of coordinating belongs to Descarts.

6. When compressing a gas heat may be developed.

**III. Choose sentences in which the action expressed by the Gerund is referred to the past.**

- 1.1 am surprised at her having left Moscow.
2. They insist on studying this problem next term.
3. The teacher insists on our doing the work in time.
4. They rely on your having done the work properly.

**Контрольная работа №2**

**Exercise 1. Use the appropriate form of the Infinitive (Active or Passive).**

1. She only pretends \_\_\_\_\_. She isn't easy \_\_\_\_\_. (frighten, frighten)
2. He is sorry \_\_\_\_\_ way to panic then. (give)
3. I am glad \_\_\_\_\_ to you at the party yesterday. (introduce)
4. I didn't expect \_\_\_\_\_ this question. (ask)
5. Don't talk too much if you want \_\_\_\_\_. (listen to)
6. Unpleasant things shouldn't \_\_\_\_\_. (put off)
7. He is happy \_\_\_\_\_ through with this task. (be)
8. It's bad of you \_\_\_\_\_ so much attention to trifling matters. You should be more serious. (pay)
9. Dan is happy \_\_\_\_\_ first prize for this picture. (award)
10. He is sorry \_\_\_\_\_ your advice then. (not follow)
11. There are a hundred things \_\_\_\_\_. (do)
12. According to the schedule the plane was \_\_\_\_\_ long ago. (land)
13. It's sensible of John \_\_\_\_\_ Kate this advice. I hope she'll follow it. (give)
14. He is sorry \_\_\_\_\_ you in your work. (disturb)
15. It's thoughtful of you \_\_\_\_\_ the flowers. She was pleased. (bring)
16. He claims \_\_\_\_\_ Elvis Priestly. Who'll believe him? (meet)
17. Aren't you supposed \_\_\_\_\_ after your sister at the moment? (look)
18. I am sorry \_\_\_\_\_ you but I didn't mean anything of the kind. (disappoint)
19. It was considerate of my son \_\_\_\_\_ of me when I was ill. (take care)
20. The woman pretended \_\_\_\_\_ and not \_\_\_\_\_ the bell. (read, hear)
21. Ann would love \_\_\_\_\_ on the beach now instead of typing letters. (lie)
22. He isn't old enough \_\_\_\_\_ out late (allow, stay).

**Exercises 2. Translate into English using the Infinitive with it".**

1. Ему трудно верить.
2. Ей доставляло огромное удовольствие видеть, как играют дети.
3. Неплохо было бы поехать за город завтра.
4. Нам понадобилось много времени, чтобы убедить его, что он неправ.
5. Не предупредить его об этом было бы нечестно.
6. Вам не мешает, если вы займетесь спортом.
7. Очень приятно пить из колодца холодную воду в жаркий день.
8. Джейн потребовалось полчаса на то, чтобы добраться до города.
9. За этим столом хорошо работать.
10. Это моя обязанность – учить вас.
11. Некоторым людям трудно угодить.
12. Стихи трудно переводить.

### Exercises 3. Change the structure of the sentence using the Infinitive as an attribute

1. The people who will be invited to the conference must take an active part in the work.
2. He knows all the places in the town that can be found there.
3. The railway that will be built there will join the two industrial centers.
4. The next patient that was to be examined was a nice girl in her early teens.
5. Honesty is the first principle that is to be observed when working with us.
6. I have a question or two which must be considered.
7. He is not the man who will draw back when dignity is concerned.
8. This is the mineral that can be found in this part of the country.
9. The ship has arrived with the pictures which will be displayed at the international exhibition.
10. I have a lot of problems that must be solved.
11. We had no time one could lose.
12. The library has received a list of the books which will be published this year.
13. I have a nice tool which can be used.
14. They had a friend one could get along with.
15. She had no one in whom she could confide.

### Exercise 4. Translate the sentence into English using the Infinitive as an attribute.

1. Вот книга, которую надо прочитать.
2. У нее есть друзья, которые могут навестить ее во время болезни.
3. Он не был человеком, который быстро привлекал к себе внимание.
4. Она первой прервала молчание.
5. Джек знал, что нельзя терять время. (There was no... ..)
6. Последний, кто навестил Анну, был её сын.
7. У нас есть хороший анекдот, который мы можем рассказать вам.
8. Я позже всех разгадал ее намерения.
9. У нее есть ребенок, о котором надо заботиться.
10. Она тотчас почувствовала, что у них есть что-то, что нужно сообщить ей.
11. Памятник, который будет возведен здесь, будет посвящен героям войны.
12. Выборы, которые состоятся в мае, скорее всего, приведут к победе демократической партии.
13. Вот проблема, которую надо решить немедленно.
14. Ему нечего было стыдиться.

### Контрольная работа № 3.

#### Ex.1

Я устал. Я бы предпочел никуда не ходить сегодня вечером.	<i>I'm tired. I'd rather not go out tonight</i>
Едва ли можно что-либо сделать в данном случае кроме разработки новой стратегии.	<i>There's hardly anything to do but work out an alternative plan (syn) scarcely</i>
Нам бы лучше (из разумных соображений) изменить стратегию	<i>We'd better change the strategy now.</i>
Вы должны знать это правило	<i>You are supposed to know this rule</i>
Маловероятно, что он сегодня появится.	<i>He is unlikely to come tonight.</i>
Как мой брат, так и я интересуемся компьютерными технологиями.	<i>Both my brother and I are keen on computer technologies.</i>

Я не интересуюсь <b>ни</b> математикой, <b>ни</b> химией.	I am keen neither on Math nor on Chemistry.
Люди, <b>как правило</b> , опаздывают на заседания	People tend to be late for meetings
<b>He is unlikely to come</b> today.	Маловероятно, что он придет сегодня.
<b>He is sure (certain) to come</b> today.	Он, несомненно, будет сегодня.
<i>How long does it take</i> you to get to the U.?	Сколько времени Вам требуется, чтобы добраться до Унив.?
<b>It takes</b> me half an hour to get there.	Мне требуется полчаса.
<b>By all means (by no means)</b>	Во что бы то ни стало ( ни в коем случае)
It happened due to his <i>lack of</i> knowledge	Из-за; в силу; вследствие; благодаря Нехватка
<b>Whether</b> you like it or not	Независимо от того
He <b>made use of</b> all secret data	Воспользоваться
I <b>made up my mind</b> to change profession.	Решить
He <b>changed his mind</b> at the last moment.	Передумать
We <b>are all subject to</b> the laws of nature.	Подпадать, быть подотчетным, подвергаться

#### Комментарий к работе.

В работу входит проверочный материал на знание **служебных слов** текущих уроков, повторение элементарных оборотов типа **both...and; neither ...nor**, некоторых разговорных выражений, активизированных в первой теме семестра, и примеров на конструкцию **Complex Subject**.

Exercises2. Translate the sentences into Russian. Pay special attention to the modal verbs, functions of “should” and the Infinitive, Infinitive constructions.

- 1 If you *should* chance to meet her any time, any place, any way, tell her that I love her and want her back again. (An Italian song)
2. Temperatures today *should* range between 18 to 20 degrees above zero.
3. A superpower *should* be able to simultaneously address several global threats.
4. You've got to look to the future and be prepared to deal with things if an emergency *should* arise.
5. Europeans *should* focus on understanding the revolutionary trends in US military doctrines
6. America *should* have a president who is responsible impartially to all Americans.
7. *Should* the candidate fail to win a majority, a second round will be held on April 16.
8. If anyone *should* be brought before an international criminal court, it is surely the Baghdad leader.
9. If a product is effective in treating ageing, it *should* be classified as a drug, not as a cosmetic, critics say
- 10 According to the Organisation for Economic Cooperation and Development economic growth *should* continue in Russia this year and next.
11. Wherever the fault lies, practical politics mean it is Europe and Japan that will *have to* swallow their pride and .

12. The top priority *is to* complete the Doha round of multilateral trade negotiations in 2006.come to the rescue of the World Bank's International Development Association
12. These ingredients are unlikely to do much more than just moisturize skin, experts say
13. China's balance of trade in goods and services is likely to return to a surplus
- 14 It would be a grave error for Washington to walk away from a treaty.

## Семинар № 1

**Раздел 14. Семинар на основе лекционного материала. Выбирает группа.**

[http://videolectures.net/wsdm09\\_dean\\_cblirs/](http://videolectures.net/wsdm09_dean_cblirs/)  
[http://videolectures.net/clspss09\\_mayfield\\_iir/](http://videolectures.net/clspss09_mayfield_iir/)  
[http://videolectures.net/dataforum2012\\_farrow\\_copyright/](http://videolectures.net/dataforum2012_farrow_copyright/)  
[http://videolectures.net/multimedia09\\_ebrahimi\\_qme/](http://videolectures.net/multimedia09_ebrahimi_qme/)  
[http://videolectures.net/mum09\\_rieser\\_aofm/](http://videolectures.net/mum09_rieser_aofm/)  
[http://videolectures.net/multimedia09\\_smeulders\\_iom/](http://videolectures.net/multimedia09_smeulders_iom/)  
[http://videolectures.net/multimedia09\\_smeulders\\_iom/](http://videolectures.net/multimedia09_smeulders_iom/)  
[http://videolectures.net/yalemecon251f09\\_geanakoplos\\_lec24/](http://videolectures.net/yalemecon251f09_geanakoplos_lec24/)  
[http://videolectures.net/yaleplsc270f09\\_goetzmenn\\_lec11/](http://videolectures.net/yaleplsc270f09_goetzmenn_lec11/)  
[http://videolectures.net/yalemecon251f09\\_geanakoplos\\_lec10/](http://videolectures.net/yalemecon251f09_geanakoplos_lec10/)  
[http://videolectures.net/yalemecon251f09\\_geanakoplos\\_lec08/](http://videolectures.net/yalemecon251f09_geanakoplos_lec08/)

Task:

1. Listen to the lecture. Make up a plan
2. Pay attention to the parentheses, linking words, conjunctions/ Make sure you use them in your discussion.
3. Speak on the problems of the lecture

## Опрос диалогов. Раздел 1. 6

Диалог знакомства на первом занятии и 10-минутный диалог в конце курса по проблематике всех лекций и тем. Оценивается умение выделить интересные темы и обсудить с партнером. Обязателен письменный вариант диалога и наличие в нем клише научной и разговорной речи.

## Пересказ

На пересказ идут все статьи.

## Зачет по заданиям к лекциям

**Проверяется наличие плана к лекциям, списка новых слов, письменно оформленного мнения по проблематике лекции (наличие клише).**

## Опрос

Студенты готовят текущий материал и отвечают у стола преподавателя. Отвечают на вопросы других

## Индивидуальное чтение 5, 9, 12,13

Проверяется выборочный перевод, подробная передача содержания на языке оригинала, ответы на вопросы.

## 1.2 Список вопросов и (или) заданий для проведения промежуточной аттестации Зачет (семестр 1)

1. К.работы семестра, выполненные на оценку «хорошо».
2. Участие в семинарах, обсуждениях. Наличие в тетради планов ко всем лекциям, мнений по лекциям.
3. 60 стр. индивидуального чтения.
4. Устное изложение мнения по лекциям (не менее 45-50 предложений)

## Экзамен (семестр 2)

1. Лексико-грамматическая работа

### Tasks:

1. Read the text without a dictionary. Write down 8 questions to the text. Pick up the key ideas and write them down using the Complex Subject, the Complex Object, the For-phrase, the Gerund.

### Комментарий:

Проверяется умение использовать конструкции. Основная грамматика отрабатывается в течение семестра. Объем часовне позволяет отрабатывать грамматику детально.

## THE CLASSICAL DOUBTS

The mantra that automatically gets replayed as rebuttal of any sort of claimed scientific proof of consciousness goes something like “*I can’t prove you are conscious and vice versa*”. This has been used so much that it’s recited without thinking and may have done us a disservice.

The PCST directly challenges the “*you can’t prove...*” claim. The PCST enacted on test subject X entails that an observer of the requisite behaviour have no more doubt as to the existence, role and status of P-consciousness in X than the observer might have in any other situation in science. This is not a claim of zero doubt, for it is always possible to construct some doubt. In science, doubt is merely sufficiently allayed to render a proposition worthy of practical attention. A novel proposition must make a testable prediction of some sort. The PCST merely expects the same treatment in propositions in respect of the P-consciousness of scientists. For PCST purposes, proposition Z2 = “*I can’t prove you are conscious and vice versa*” is recognised as having no supporting evidence and shall be dropped. A very reasonable doubt that Z2 is true can be constructed and that doubt is based on empirical isolation of a verifiable critical dependency. The PCST acquires its authority thus, in an act of plain ordinary science. To see how culturally awkward a ‘test for consciousness’ feels, put yourself in the observer’s shoes and ask “*I know I signed-off on the test procedure PCST, it sounds right ...but.... how do I really know X has P-consciousness?*”. It is quite confronting to be asked to accept that what has been observed in the lab proves that P-consciousness exists within test subject X. The usual retort goes something like this: “*I can imagine the machine X behaving that way and yet having no P-consciousness at all. What is it about the observation that assures me that there is P-consciousness inside it?*”. In answer to this note that the argument “*I can imagine....*” cannot be given special privileges when dealing with P-consciousness. If the argument is compelling for P-consciousness, then every scientific experiment or hypothesis must be permitted the same defeat. For example: “*I can imagine particle Y being produced without the involvement of particle Z*”. Nobody would allow such an argument to disprove the discovery of the neutrino, which has this evidentiary basis.

2. 60 страниц оригинального текста (индивидуальное чтение);

3. Зачет по семинарским занятиям, лекциям, пересказам учебных текстов.
4. 10-минутный диалог с партнером на основе прочитанного и прослушанного за семестр материала.

**Список тем за курс обучения:**

1. Job interview.
2. 'On constructing intellectual systems in Ternary Logic'
3. An e-Encyclopedia for Medical Imaging Technology
4. Python.
5. Turing's Tests.
6. Deep reinforcement learning
7. Своя профессиональная лекция (1 час)
8. Лекция по выбору группы..