Introduction to Logic

1. Course Description / Objectives (Core Curriculum)

The objective of the course is to augment students’ analytical and critical thinking through the study of formal logic. The students will learn philosophical concepts and introductory tools for valid reasoning and proof in modern logic.

This course has been certified as a Core Curriculum course:

SAS Core Code: Mathematical or Formal Reasoning (QR)
"Apply effective and efficient mathematical or other formal processes to reason and to solve problems."

for more info, visit http://sasoue.rutgers.edu/core/core-learning-goals

2. Grade Determinants

2.1. (50%) Online Exercises (pass/fail basis)

♦ for-credit (FC) Exercises in Modules
♦ on a weekly basis (most likely 5 times of assignment)

2.2. (50%) Final Exam

♦ scheduled on Fri., 07-03, 1:00 - 4:00 pm
♦ take-home exam via email

3. Course Textbook

Hausman, Alan, Howard Kahane, & Paul Tidman
Thomson/Wadsworth (current or any old edition)
4. **Course Website (at Sakai)**

Logon to Sakai with your Rutgers NetID and password at:

https://sakai.rutgers.edu/portal

Select this course:

**20M Logic (P)**

5. **Course Contents**: 5-Part Composition with individual modules

Once you are in the course website, in the left column of the web page, you will find the course contents, where the five parts are arranged hierarchically and will be made available **progressively**:

- Part 1. Preliminaries
- Part 2. Semantics with Truth Tables
- Part 3. Syntax with Sentential Logic (1)
- Part 4. Syntax with Sentential Logic (2)
- Part 5. Syntax with Predicate Logic

The 5-part composition of the whole course work exactly corresponds to the structure of the course website at Sakai, which will be further compartmentalized into a series of about 60 modules.

Each module is typically comprised of:

1. Lecture on Video (in streaming video of MP4 file)
2. Reading assignment from the textbook
3. Exercise assignment (non-credit / for-credit with * mark)

These modules are arranged in a (hierarchically-arranged) sequential manner, so that students are to move forward to the next module when they can fully grasp the instructional contents presented in the current module. (Occasionally, students might want to review the previous modules, and indeed, they can. This is one of the great advantages of online class.)
6. **Course Structure: Modus Operandi**

The whole course is designed to let students study *fully online* from start to finish via pre-recorded multimedia material. (Streaming videos in mp4 file will be made available as the main medium of course instructions, while the for-credit exercises are often made from the textbook, not to mention reading assignments.)

Each week, on a regular basis, a set of new modules will be opened up with (a) lectures on video, (b) reading assignments, and (c) the exercises. These modules, with the exercises therein, are progressively arranged so as to promote independent, steady and cumulative studies, where students may move to the next module only when they finish the studies with the current one.

The exercises corresponding to the modules made available in the assignments are classified into of the following 2 kinds:

1. *non-credit* (NC: answers to be found in lectures)
2. *for-credit* (FC: to be graded for credit points)

The for-credit exercises (FC), will be considered as the *culmination* of instructional contents assigned in the week. You are required to submit your answers to these exercises (FC) by the due (typically via email).

The for-credit exercises will be evaluated and given credits quite liberally, almost on pass/fail basis: as long as students show their utmost efforts in absorbing new materials and coming up with answers sincerely, they will earn credit points (up to 50%). It is *incumbent* upon students to check the feedback (as well as the credit status) from which to correct mistakes (if any), and to improve understandings.

This *modus operandi* is in accordance with the fact that in order for an online course to be successful, students should study course materials in a *persistent and steady* manner. Students should not expect that they might be able to absorb course materials at the last minute simply because they can be accessed at any convenient time. For that reason, students should maintain individual *self-discipline* at the utmost level. Another equally important reason is because logic as a field of study is distinctively *rigorous and cumulative*. (Students are hereby advised not to take this advice lightly at all. You will be soon overwhelmed unless you keep up with the pace of progress.)
7. **Email Communication**

Along with the website, the email communications are vital in this course. Everyone is required to send the following information to instructor's email (not to be left out of email database):

1. Last Name & First Name
2. 2 Email Addresses (one primary + another for backup)
3. Major & Year (e.g., Chemistry, Junior)

Use the following email addresses of your instructor, unless noted otherwise:

Logic.dr.kang@gmail.com (exclusively created for the course)
(st7kang@rutgers.edu / secondary one for backup; not to be used otherwise)

Put the following info into the **subject line** of your email:

**(P) Your Last Name, Your email contents (brief)**
e.g., **(P) Smith, basic info**

**(P)** refers to the very section of this course you're in; it shall be persistently used through the session in all the email correspondence for assignments, *in place of* the long 10-digit reference numbers for this section.

8. **Virtual Meeting via BBB**

The weekly *modus operandi* via assignments and feedback, in conjunction with email communication, will be quite sufficient; we may also use utilize a multimedia-intensive platform called *Meetings* via *BBB* available at Sakai as a virtual space and time where we can meet (a Skype-like environment with additional features such as chatting and white board). While all the instructions are conducted in an *asynchronous* manner, this virtual meeting should be in a *synchronous* mode at a designated time, where students can ask questions on real-time basis. It is an *optional feature of fully online* course which this class is intended to be, where students are totally liberated from spatial-temporal confines of traditional instructional environment.

Students who want to ask questions via *BBB* should send an email to work out a mutually feasible time (typically Mon., late afternoons and evenings) and post **specific** questions that warrant this special virtual meeting. There might be some IT-related hurdles to overcome in order to take advantage of all the state-of-the-art technologies (e.g., webcam). More detailed instructions will be given via email as the course progresses. In any event, the timely email communications as the standard alternative will be quite effective as usual.
9. **Note on IT aspect of e-Learning**

The adoption of video-streaming (in 'mp4' files) for making course contents available asynchronously has been a careful choice by your instructor to utilize one of the most updated multimedia compression technologies. I have had quite satisfactory experiences with it, which I wouldn't expect anything less this time as well.

There will be always room for improvement in terms of catching up ever-changing IT; and also we have to grant that especially in terms of interactivity on the spot between instructor and students, online instructions should not be compared to in-class instructions. But from the past experiences, your instructor is totally convinced that students can learn course materials online as effectively as in-class (quite often even better than in-class). It is a huge advantage that course materials can be accessed from any place and time convenient for students, and as many times as necessary.

10. **University Policies & Services**

10.1 *On Academic Integrity:*

All the evaluations in this course work (online for-credit exercises & the final in-class exam) shall be conducted in full compliance with the Univ. policy on Academic Integrity.

For more info, visit:

http://academicintegrity.rutgers.edu/academic-integrity-policy/

10.2 *On Disability Services:*

(848) 445-6800

Lucy Stone Hall, Suite A145, Livingston Campus, 54 Joyce Kilmer Avenue, Piscataway, NJ 08854

https://ods.rutgers.edu/

The Office of Disability Services works with students with a documented disability to determine the eligibility of reasonable accommodations, facilitates and coordinates those accommodations when applicable, and lastly engages with the Rutgers community at large to provide and connect students to appropriate resources. Students with disabilities requesting accommodations must follow the procedures outlined at:

http://disabilityservices.rutgers.edu/request.html
10.3 On Student-Wellness Services:

   Just In Case Web App at http://codu.co/cee05e

Access helpful mental health information and resources for yourself or a friend in a mental health crisis on your smart phone or tablet and easily contact CAPS or RUPD.

10.4 On Counseling, ADAP & Psychiatric Services (CAPS):

(848) 932-7884
17 Senior Street, New Brunswick, NJ 08901
www.rhscaps.rutgers.edu

CAPS is a University mental health support service that includes counseling, alcohol and other drug assistance, and psychiatric services staffed by a team of professional within Rutgers Health services to support students’ efforts to succeed at Rutgers University. CAPS offers a variety of services that include: individual therapy, group therapy and workshops, crisis intervention, referral to specialists in the community and consultation and collaboration with campus partners.

10.5 On Violence Prevention & Victim Assistance (VPVA):

(848) 932-1181
3 Bartlett Street, New Brunswick, NJ 08901
www.vpva.rutgers.edu

The Office for Violence Prevention and Victim Assistance provides confidential crisis intervention, counseling and advocacy for victims of sexual and relationship violence and stalking to students, staff and faculty. To reach staff during office hours when the university is open or to reach an advocate after hours, call 848-932-1181.

10.6 On Scarlet Listeners:

(732) 247-5555
http://www.scarletlisteners.com/

Free and confidential peer counseling and referral hotline, providing a comforting and supportive safe space.