Syllabus for PHY 599: Graduate Seminar Fall 2020

Each Student presents a Seminar on a topic in

Nuclear Physics, Neutrino Physics, Particle Physics, or Astrophysics (you can find a list of suggested topics under the "Documents" tab on Blackboard)

Schedule:

- Monday 4:25-5:45pm, starting from Aug 24th

Zoom coordinates/format:

- Lecture will be held virtually on zoom. Direct link: https://stonybrook.zoom.us/j/96298035848?pwd=eVRYZ3ZEaFNrdUkrT3llbURzdzcwUT09

- Passcode: 125125. Only authenticated users will be able to join (Stony Brook login, use option “Sign in with SSO” and then type your Stony Brook NetID and password).

- You are requested to show your video while giving your own presentation. You are strongly encouraged to show your video also when asking questions and interacting with instructors and other students.

- You find instructions to connect to the meeting through a phone bridge at the end of the syllabus (e.g. in case your computer client does not work).

Learning Objectives:

- Obtain experience in giving oral presentations.
- Learn some of what is happening in these fields.
- Learn about research activities at Stony Brook.

Expectations:

○ Each student will give one 15 minute talk, with 5-10 additional minutes to allow for questions and discussion during and after the talk.
○ Pick a topic for your talk - this can be a topic from the list of suggestions, or a topic of your own choosing. In the latter case, it is up to the instructors to decide whether the topic is appropriate. The topic cannot be your own research topic. E-mail the instructors with your choice of topic and date of presentation. Both are first-come, first-serve.

○ Research your topic. Be sure to make use of the resources given below. You are encouraged to consult with the listed faculty experts for your topic.
○ Instructors or experts should be consulted on the organization, layout, and content of your presentation at any time, but you will be solely responsible for the final product.
○ Make sure that all material is properly cited! Any incidence of plagiarism will automatically result in a course grade of “Q”. See this guide, the Academic Integrity Policy and its FAQ.
○ Make sure you have a goal with the presentation: present the essential (new) physics, provide connections (previous data/theory), present the underlying concepts, and give a compact summary.
○ Your fellow students must be able to learn something (new) from your presentation: make sure you start at a general level of knowledge.
○ You are strongly encouraged to arrange a practice talk in front of fellow students a few days preceding their presentation. Practice the presentation: diction, attitude, position, volume, speed, and timing are just as important as your slides!
○ You are required to provide an electronic version of the talk in PDF *by noon on the day of the presentation*.
○ Make sure to stay close to the allotted time, but don't exceed the time limit. Be aware that if you speak for significantly longer than the allotted time, you may be interrupted and not be allowed to finish your presentation. This is a constraint that is consistent with the practices at many conferences.
○ Make sure your talk is not too short.
○ Do not include long and complex derivations; provide the essence or the outline of derivations if needed.
○ Students must turn in an electronic abstract at least one week preceding the talk. You are encouraged to discuss your abstract with an instructor or faculty expert first.
○ Prepare an APS formatted abstract with the proper references. Note that one may now go to the APS website and submit an abstract to the "Test" meeting. To do this, go to the abstract submission page, click "Start Abstract Submission," select TEST meeting, and follow the instructions. If you go all the way through and submit, you can then select "view submission file" to see the LaTeX. You may then use that file to produce an abstract for the class. (Here is an example LATEX source that will build with apsab.sty
○ Scheduled talks may not be postponed.
○ Students must attend all talks; attendance will be taken. Notice: given that it is hard to distinguish active from passive attendance in a virtual meeting, from time to time you will be asked about the ongoing presentation, don’t be caught unprepared by remaining focused on the lecture (being caught unprepared will be considered as being absent).

○ Students are required to ask questions and are encouraged to give criticisms of talks.

Active participation will be part of the grade. *If not enough questions are asked, we will call on those students who have participated least in class to ask a question.*

Grade:

- Physics content and accessibility of the presentation: 50%
- Presentation quality of the presentation and quality of the Abstract: 30%
- Active participation in class discussion 20%. Do not expect a grade A if you don't participate in class (i.e. if you don't ask questions during other students' talks).
- Attendance will be taken. Unexcused absences will result in a lower grade. Same if you appear to be there on zoom, but you are caught unprepared/distracted.
- Any excuses (medical or otherwise) are to be discussed with the instructors and documented in a timely manner.

Course materials:

- for electronic article access, try the university license to APS Journals (Physical Review);
- most (if not all) articles are also available through the electronic preprint archive (arXiv);
- for searching published work in astronomy, the ADS abstract service is excellent;
- for particle and nuclear physics, the web sites of large experiments can be helpful in finding publications;
- for advanced search options in particle and nuclear physics papers, use INSPIRE-HEP database. Contact your local faculty experts for specific recommendations of scientific articles on your topic of choice.

Student Accessibility Support Center (SASC) Statement:

If you have a physical, psychological, medical, or learning disability that may impact your course work, please contact the Student Accessibility Support Center, 128 ECC Building, (631) 632-6748, or via e-mail at: **sasc@stonybrook.edu**. They will determine with you what accommodations are necessary and appropriate. All information and documentation is confidential.

Academic Integrity Statement:

Each student must pursue his or her academic goals honestly and be personally accountable for all submitted work. Representing another person's work as your own is always wrong.

Faculty is required to report any suspected instances of academic dishonesty to the Academic Judiciary. Faculty in the Health Sciences Center (School of Health Technology & Management, Nursing, Social Welfare, Dental Medicine) and School of Medicine are required to follow their school-specific procedures. For more comprehensive information on academic integrity, including categories of academic dishonesty please refer to the academic judiciary website at http://www.stonybrook.edu/commcms/academic_integrity/index.html

Critical Incident Management Statement:

Stony Brook University expects students to respect the rights, privileges, and property of other people. Faculty are required to report to the Office of University Community Standards any disruptive behavior that interrupts their ability to teach, compromises the safety of the learning environment, or inhibits students' ability to learn. Faculty in the HSC Schools and the School of Medicine are required to follow their school-specific procedures. Further information about most academic matters can be found in the Undergraduate Bulletin, the Undergraduate Class Schedule, and the Faculty-Employee Handbook.

Religious Observances:

See the policy statement regarding religious holidays at

https://www.stonybrook.edu/commcms/provost/faculty/handbook/academic_policies/religious_holidays_policy

Students are expected to notify the course professors by email of their intention to take time out for religious observance. This should be done as soon as possible but definitely before the end of the `add/drop' period. At that time they can discuss with the instructor(s) how they will be able to make up the work covered.

Connecting to zoom through a phone bridge:

Meeting ID: 962 9803 5848

Passcode: 125125

One tap mobile

+16468769923,,96298035848# US (New York)

+13017158592,,96298035848# US (Germantown)

Dial by your location

+1 646 876 9923 US (New York)

+1 301 715 8592 US (Germantown)

+1 312 626 6799 US (Chicago)

+1 253 215 8782 US (Tacoma)

+1 346 248 7799 US (Houston)

+1 408 638 0968 US (San Jose)

+1 669 900 6833 US (San Jose)

Meeting ID: 962 9803 5848

Find your local number: https://stonybrook.zoom.us/u/acNA8MxGxQ