COURSE SYLLABUS
EE FIRST-YEAR SEMINAR
EE 009S, Section 1
INTRODUCTION TO HAM RADIO
Fall 2012

11:15 AM to 12:05 PM, Thursdays, 207 Hammond

Instructor
Prof. Mark Wharton, K0LO
318 Electrical Engineering East
Tel: 865-2091
Email: MarkWharton@psu.edu
Office Hours: WR 9-10 AM
            MR 1:30 – 2:15 PM

TA
TBD
Tel: TBD
Email: TBD

Textbook (Optional)
Title: Technician Class 2010-2014
Edition: 2010
Author: Gordon West, WB6NOA
Publisher: Master Publishing, Inc.
ISBN: 9780945053620
http://www.amazon.com/Technician-Class-2010-2014-Gordon-West/dp/0945053622

Prerequisite
None

Description
Engineering First-Year Seminars are designed to engage students in learning and facilitate the transition to college life. This course will offer lectures, demonstrations, tours, meetings, and projects to introduce the student to the world of Amateur (Ham) Radio, which is closely related to Electrical Engineering. Additionally, this course will provide the knowledge necessary for the student to pass the FCC exam to obtain the entry-level Technician Class Ham Radio license. Students who obtain their FCC license will also be able to sign out a hand-held radio transceiver for their own use and for use in projects and activities throughout the semester.

Passport
This class will participate in the College of Engineering program Engineering Passports to Success, a program designed to ensure that the First-Year seminar achieves the objectives set out by the University Faculty Senate. To complete the Passport you will choose and participate in one activity from each of five areas that are designed to introduce you to some facet of University Life. One of the activities is participation in the World in Conversation project.
Grading Policy

Grading will be determined from your ability to pass the FCC Technician Class exam, your successful completion of the Passport, and from your attendance at both in-class and out-of-class activities. The activities are listed on pages three and four. As shown, some regular class meeting times have been cancelled in order to compensate for time spent in activities outside of class. Outside activities allow us to make this course a more dynamic experience for the students and allow you to gain some hands-on experience with the world of amateur radio.

We realize that some students will have conflicts with outside activities so it is your responsibility to notify the instructor as soon as possible when you have a conflict. In October, a Ham Radio exam will be administered by a group of official Volunteer Examiners. It is important that you attend this exam (on a Sunday afternoon; date and time to be announced). If you cannot make it to the exam you are strongly encouraged to take the exam elsewhere. Ham Radio exams are administered all over the country on a regular basis. If you have any questions, please talk to the course instructor as soon as possible.

Because there are no quizzes or other graded activities, attendance is a factor in determining your grade; therefore we must make it fair for the student by setting guidelines for absences. In general, you are expected to attend all classes and participate in all activities. Valid excused absences are: i) illness, ii) death in the family, iii) conflict with another course (lab, exam …), and iv) participation in a scheduled University activity (Blue Band, ROTC, club activity …). Other reasons are considered unexcused absences. If you are aware of a conflicting activity, it is your responsibility to notify the instructor as soon as you know about the conflict either before or after class, or via email.

If you attend all classes and activities and pass your amateur exam then you’ll get an A in this course. Up to two unexcused absences will not affect your grade. Otherwise, unexcused absences will result in a grade in accordance with the following table:

<table>
<thead>
<tr>
<th>Unexcused Absences</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>&gt;4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Completion of all three items (below)*</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>A-</td>
<td>B+</td>
<td></td>
</tr>
<tr>
<td>Completion of two items</td>
<td>B+</td>
<td>B+</td>
<td>B+</td>
<td>B</td>
<td>B-</td>
<td></td>
</tr>
<tr>
<td>Completion of one item</td>
<td>B</td>
<td>B</td>
<td>B</td>
<td>B-</td>
<td>C+</td>
<td></td>
</tr>
<tr>
<td>Completion of no items</td>
<td>C+</td>
<td>C+</td>
<td>C+</td>
<td>C</td>
<td>D</td>
<td></td>
</tr>
</tbody>
</table>

*Items are:  
1) Completion of the Passport  
2) Taking the Ham Exam  
3) Passing the Ham Exam.

Because this is a Ham Radio course, we strongly encourage you to obtain at least a Technician class amateur (Ham) radio license. Keep in mind, you are given multiple chances to pass the exam and it is offered in many locations all over the USA if you are not in town on the day of the exam.

1 [http://sedtapp.psu.edu/firstyear](http://sedtapp.psu.edu/firstyear)  
2 [http://sedtapp.psu.edu/firstyear/PassportFacilitationGeneral.pdf](http://sedtapp.psu.edu/firstyear/PassportFacilitationGeneral.pdf)  
3 [http://www.worldinconversation.org](http://www.worldinconversation.org)
# EE 009S - Course Outline / Calendar of Events:

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 1</td>
<td>-Aug 30-</td>
<td>Introduction / course overview, Ham Radio exam preparations, 2 meter demonstration, etc</td>
</tr>
<tr>
<td>Week 2</td>
<td>- Sep 6 -</td>
<td>Cancelled</td>
</tr>
<tr>
<td>Meeting</td>
<td>- Sep 5 -</td>
<td>Penn State Amateur Radio Club Meeting (PSARC) 8:00 PM – Wagner Building (check email for room info)</td>
</tr>
<tr>
<td>Week 3</td>
<td>- Sep 13 -</td>
<td>Radio tuning demonstration, show radios, internet operations</td>
</tr>
<tr>
<td>Lab</td>
<td>- TBA -</td>
<td>Radio Tuning Project By Appointment – Wagner Building</td>
</tr>
<tr>
<td>Week 4</td>
<td>- Sep 20 -</td>
<td>Cancelled due to Lab Projects</td>
</tr>
<tr>
<td>Week 5</td>
<td>- Sep 27 -</td>
<td>PSK31 / Digipan demonstration</td>
</tr>
<tr>
<td>Lab</td>
<td>- TBA -</td>
<td>PSK31 / Digipan Project By Appointment – Wagner Building</td>
</tr>
<tr>
<td>Week 6</td>
<td>- Oct 4 -</td>
<td>Cancelled due to Lab Projects</td>
</tr>
<tr>
<td>Lecture</td>
<td></td>
<td>Online Practice Exams (See online practice exams links)</td>
</tr>
<tr>
<td>Assignment</td>
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</tr>
<tr>
<td>Week 7</td>
<td>- Oct 11 -</td>
<td>In-class Review for Ham Exam</td>
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<tr>
<td>Lecture</td>
<td></td>
<td>Online Practice Exams (See online practice exams links)</td>
</tr>
<tr>
<td>Assignment</td>
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<td></td>
</tr>
<tr>
<td>Week 8</td>
<td>- Oct 18 -</td>
<td>In-class Review for Ham Exam</td>
</tr>
<tr>
<td>Lecture</td>
<td></td>
<td>Online Practice Exams (See online practice exams links)</td>
</tr>
<tr>
<td>Assignment</td>
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</tbody>
</table>
Week 9
Ham Exam - Oct 21 - FCC License Exam
2PM – Location TBA (check email for info)
Lecture - Oct 25 - Cancelled due to Exam

Week 10
Lecture - Nov 1 - Pass out radios

Week 11
Lecture - Nov 8 - Fox Hunt – Description and Techniques
Activity - Nov 11 - Fox Hunt #1
Net - Nov 11 - 2:00 PM – HUB (outside on Pollock Road side)
9:30 PM – 145.45 MHz

Week 12
Lecture - Nov 15 - Cancelled

Thanksgiving Break – Nov 19 to 23

Week 13
Lecture - Nov 29 - Project (To be announced)

Week 14
Lecture - Dec 6 - Fox Hunt – Advanced Doppler Techniques
Meeting - Dec 9 - Fox Hunt #2
Net - Dec 9 - 2:00 PM – HUB (outside on Pollock Road side)
9:30 PM – 145.45 MHz

Week 15
Lecture - Dec 13 - Turn in radios and give feedback on class

Note: This schedule is subject to change during the semester.