**Master Course Syllabus for EEL 4242**

1. **Title:** POWER ELECTRONICS CIRCUITS

2. **Credits:** 3 (2 lectures of 75 minutes per week)

3. **Course Coordinator:** Dr. Muhammad H Rashid

4. **Textbook(s) and/or Other Required Materials:**

5. **Catalog Description:** The main objective of this course is to study the principles of static power conversions, PWM techniques for voltage and frequency control, circuit design considerations, and applications of power electronics. Computer-aided analysis and design of power electronic circuit will be emphasized.

6. **Prerequisite(s):** EEL 3308 – Electronic Circuits I with a grade of C (2.0/4.0) or better

7. **Course Designation as Elective or Required:** Elective

8. **Course Objectives:**
   - Provide a theoretical and practical background in power electronic devices and circuits, along with the engineering analytical and design skills.
   - Study the principles of static power conversions, PWM techniques for voltage and frequency control, circuit design considerations, and applications of power electronics.
   - Computer-aided analysis and design of power electronic circuit will be emphasized.

9. **Student Learning Outcomes:** After successfully completing the course with a grade of C (2.0/4.0) or better, the student should be able to do the following:
   - Describe the operation of dc-dc, dc-ac, ac-dc and ac-ac power converters.
   - Explain the control characteristics of power semiconductor switching devices.
   - Calculate the values of circuit parameters to limit output ripple voltages and currents of a converter with certain specified values.
   - Evaluate the effects of various modulation techniques on the quality of input and output waveforms.
   - Analyze and evaluate the performance of a simple power circuit.
   - Apply PSpice and Mathcad (or Mathlab) software tools to verify the design assignments to evaluate the performance of power electronics circuits in terms of power factor, harmonic factor, distortion factor and switching angles for PWM switching.
10. Student Outcomes Addressed:

<table>
<thead>
<tr>
<th>#</th>
<th>Student Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Recognize, interpret, and apply concepts of mathematics, science, and engineering.</td>
</tr>
<tr>
<td>5.</td>
<td>Identify, formulate, and solve engineering problems.</td>
</tr>
<tr>
<td>7.</td>
<td>Identify and apply the skills necessary to communicate effectively.</td>
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<tr>
<td>9.</td>
<td>Recognize the need for, and able to engage in, life-long learning.</td>
</tr>
<tr>
<td>10.</td>
<td>Recognize and describe contemporary issues.</td>
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<tr>
<td>11.</td>
<td>Identify and apply the techniques, skills, and modern engineering tools necessary for engineering practice.</td>
</tr>
</tbody>
</table>

11. Topics Covered:

<table>
<thead>
<tr>
<th>Items</th>
<th>Topics</th>
<th>Classes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Introduction to Power Electronics</td>
<td>1</td>
</tr>
<tr>
<td>2.</td>
<td>Diodes</td>
<td>2</td>
</tr>
<tr>
<td>3.</td>
<td>Diode Rectifiers</td>
<td>4</td>
</tr>
<tr>
<td>4.</td>
<td>Power Transistors</td>
<td>1</td>
</tr>
<tr>
<td>5.</td>
<td>DC–DC Converters</td>
<td>5</td>
</tr>
<tr>
<td>6.</td>
<td>PWM Inverters</td>
<td>6</td>
</tr>
<tr>
<td>7.</td>
<td>Thyristors</td>
<td>1</td>
</tr>
<tr>
<td>8.</td>
<td>Resonant Pulse inverters</td>
<td>2</td>
</tr>
<tr>
<td>9.</td>
<td>Controlled Rectifiers</td>
<td>4</td>
</tr>
<tr>
<td>10.</td>
<td>AC voltage Controllers</td>
<td>2</td>
</tr>
<tr>
<td>11.</td>
<td>Exams</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>30</td>
</tr>
</tbody>
</table>

**Computer Resources:** Each student must use PSpice and Mathcad (or Mathlab) software tools to verify the design assignments to evaluate the performance of power electronics circuits in terms of power factor, harmonic factor, distortion factor and switching angles for PWM switching.

12. **Prepared by:** Dr. Muhammad H. Rashid  
**Date:** June, 2004  
**Revised by:** Dr. Muhammad H Rashid  
**Date:** May 8, 2007  
**Revised by:** Dr. Muhammad H Rashid  
**Date:** January 2, 2009  
**Revised by:** Dr. Muhammad H Rashid  
**Date:** February 12, 2011  
**Revised by:** Dr. Muhammad H Rashid  
**Date:** November 4, 2012
ELECTRICAL AND COMPUTER ENGINEERING
UNIVERSITY OF WEST FLORIDA
EEL 4242 – POWER ELECTRONICS
Spring 2013

Course Background: EEL 4242 is designed to develop a strong background in power electronic devices and circuits, along with the engineering analytical and design skills. It covers the principles of static power conversions, PWM techniques for voltage and frequency control, circuit design considerations, and applications of power electronics. Computer-aided analysis and design of power electronic circuit is emphasized.

EXPECTATIONS FROM STUDENTS

- Read the complete syllabus and the deadlines (see the schedule in page 10).
- Active participation in the weekly discussion (see schedule in page 10).
- Submit assignments in the e-learning by the due dates (normally the following Sunday) to avoid any grade penalty.
- Complete all quizzes by the due dates (normally the following Sunday) to avoid any grade penalty.
- Submit the contemporary final report in the IEEE format (see the IEEE template and the sample report) and the PowerPoint presentation slides in the e-learning. It is required to pass this course.
- Submit the contemporary final report in http://www.turnitin.com. It is required to pass this course.

EXPECTATIONS FROM THE FACULTY

- Return the feedback comments for assignments by the following Wednesday.
- Inform all students when the feedback comments are posted in the e-learning.
- Response to any questions by e-mail or phone within 48 hours (expect Weekends, breaks, and holidays).
- Send a reminder for the due date of the contemporary final report and final PowerPoint slides.
- Send a reminder for the submission of the contemporary final report in the e-learning and http://www.turnitin.com

Lecture Hours: On-line, no fixed time

Semester: Spring 2013
Instructor: Dr. M. H. Rashid
Office: SSE Building # 4, Room #133 (PNS)
Phone: 850 474 – 2976 (Office) (863) 660-6400 (Cell, leave a message with a contact number)
Office Hours: Thursday: 1- 3 pm. or communications through e-mails and telephone calls.
e-mail: mrashid@uwf.edu
Course website site: All course handouts (e.g., syllabus, lecture handouts, reference material, etc.) will be posted in the e-learning http://elearning.uwf.edu. You will also use the e-learning for dropping your reports.

Note: Please submit all assignments in MS Word version

E-learning Tips: Visit the UWF site for new online students and working with other students online: http://onlinecampus.uwf.edu/gearup/

E-learning Problems: Call UWF Help Desk: (850) 474 2075

Prerequisites: EEL 3308 – Electronic Circuit I with a grade of C or better

Textbook(s) and/or Other Required Materials:


Make up: No make up tests or quizzes, except in case of emergency, e.g. illness and accident. For make up tests, medical certificate is required and the instructor must be notified in advance of the test.

Web-site sources for power semiconductor devices and manufacturers

1. ABB Semiconductors
   Nihon Inter Electronics Corp.
   http://www.abbsem.com/english/salesb.htm
2. Fuji Semiconductors.
   http://www.fujielectric.co.jp/eng/denshi/scd/index.htm
3. Internation Rectifier
   http://www.irf.com
4. Collmer Semiconductor
   http://www.collmer.com
5. Westcode Semiconductor
   http://www.westcode.com/ws-prod.html
6. silicon Power corporation
7. Semikron International
   http://www.semikron.com/seminew/matrixe.html
8. Eupec
   http://www.eupec.com/p/index.htm
9. Infineon Technology
   http://www.infineon.com/cgi/ecrm.dll/ecrm/scripts/prod_cat.jsp?oid=-8168
   http://www.siemens.com
10. On Semiconductor
    http://onsemi.com/pub/prod/0.1824.productsm_Taxonomy_MaxLevel=2_LevelName1=Discrete.00.html
11. Philips Semiconductors
http://www.semiconductors.philips.com/catalog/
12. Mitsubishi Semiconductors 
   http://www.mitsubishi.com/index_e.html
13. Mitel Semiconductors 
   http://www.mitelsemi.com
14. Motorola  
   http://www.motorola.com
15. Bharat Heavy Electricals Ltd  
   http://www.bheledn.com/
16. FMCC EUROPE  
   http://www.fmccgroup.com/
17. Renesas Electronics Corporation  
   http://www.renesas.com/
18. Infineon Technologies  
   http://www.infineon.com
19. Fairchild Semiconductor  
   http://www.fairchildsemi.com
20. Power Integrations  
   http://www.powerint.com
21. Rockwell Automation  
   http://www.ab.com
22. Compound Semiconductor  
   http://www.compoundsemiconductor.net/
23. Cree Power  
   http://www.cree.com
24. Yole Development  
   http://www.yole.fr
25. Honda R&D Co Ltd  
   http://world.honda.com
26. Semelab Limits  
   http://www.semelab-tt.com
27. tranSiC Semiconductor  
   http://www.transic.com
28. Microsemi Corporation  
   http://www.microsemi.com

NOTE: It is possible that the web-links may have changed; search the web with the key words.

Grading Scheme:

<table>
<thead>
<tr>
<th>Items</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quizzes</td>
<td>63</td>
</tr>
<tr>
<td>Final Design Project*</td>
<td>10</td>
</tr>
<tr>
<td>Contemporary Research paper** (individual)</td>
<td>10</td>
</tr>
<tr>
<td>Contemporary Research paper PowerPoint**</td>
<td>5</td>
</tr>
<tr>
<td>Participation in on-line discussion***</td>
<td>10</td>
</tr>
<tr>
<td>Pre-Quiz &amp; Post-Quiz** (1+1)</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
</tr>
</tbody>
</table>

Notes on Late Assignments:
- No late assignments will be accepted beyond the due date and time.
- If you receive an incomplete final grade due to any missing assignment, you will receive no more than 80% of the assigned points for the missing assignment.

*A score of 7 out of 10 in the Final Design is required to pass this course
** A contemporary report on applications of Power Electronics in renewal energy, energy efficiency, transportations, consumer, industrial, etc. It must conform to the IEEE paper format with 5 to 6 pages (excluding the cover page) and PowerPoint slides of 12-15 slides. A score of 7 out of 10 in the research paper is required to pass this course.
*** Must Author 2 times (minimum) and Read 3 times (minimum) for each discussion item to receive full points. Please keep your discussion focused as if you are a professional engineer. It is not uncommon to have different views on the same issue.
**** Must complete Pre-Quiz & Post-Quiz to pass this course. Responding to all the items will score 2%.
**Question on Final Grades:** Question on Grading Scheme: When determining a student’s final grade, do you assign only A’s, B’s, etc. Or do you assign plus and minus as well. If so, what are the cut off grades for the plus and minus?

Answer: Yes, there will be plus and minus letter grades as in the UWF catalog. The grade cut-offs are not fixed. It will depend on the class performances which will be curved to determine the final grades. Publishing the grade cut-offs limits the instructor’s ability to take into account the class performances. The grade cut-offs will not be higher than that which are published in the UWF catalog.

**Question on 70% requirements (7/10):** Why do we need to meet the 70% requirements (7/10) in the final exam and contemporary report?

Answer: By doing this, I as the instructor can ensure and certify that you not only passed the course, but you have also met the program outcomes (# 1, 5, 7, 9, 10 & 11 see the ABET Master Syllabus), which are required for you to meet as the graduation requirement. I can use your graded work as the evidence in support of my certification. The instructor will use your graded work as the evidence in support of certification.

**Questions on Pre and Post-Quizzes:** Can you clarify the pre- and post-quizzes? It said I would receive a full score for answering all the questions. I answered all the questions to the best of my ability, but I did not receive 100%.

Answer: Yes, you will receive full points for answering all. Do not worry about the points you scored, we do not expect you to score high rather low in the pre-quiz and the score reflects your current knowledge at the beginning of the course, not your grade points. We, however, expect higher score in the post-quiz at the end of the course. You DO NOT need any preparation for the pre-and post-quizzes. We want you to assess your abilities and skills at the beginning and end of the course. This should give us some indications of the level of your learning in the course.

**Question on Discussion:** Can you clarify authoring 3 times and Reading 4 times? Does replying to others post count as authoring?

Answer: Yes, Replying to others counts as ‘Authoring’ and reading other comments counts as Reading.

**Warning on Discussion:** It is wrong to copy and paste someone’s comments and claimed as your own statement. Please note that your comment is stamped with Authored by: Authored on: date and time. We can easily check who is copying from whom. It is unethical do so and cannot be allowed. Please focus on the discussion and write your own comments.

**Assistance for Special Needs Students:** The Student Disability Resource Center SDRC at the University of West Florida supports an inclusive learning environment for all students. If there are aspects of the instruction or design of this course that hinder your full participation, such as time limited exams, inaccessible web content, or the use of non-captioned videos and podcasts, please notify the instructor or the SDRC as soon as possible. You may contact the SDRC office by e-mail at sdrc@uwf.edu or by phone at (850) 474-2387 (Pensacola) or 850-833-3283 (Emerald Coast). Appropriate academic accommodations will be determined based on the documented needs of the individual.
Academic Integrity: There are special expectations of students for any academic work done at UWF. Please refer to the following for questions on academic conduct, plagiarism, etc.

Academic Conduct Policy:  

Plagiarism Policy:  
http://uwf.edu/cas/aasr/Plagiarism.pdf

Student Handbook:  

Academic dishonesty is a serious offense and will be taken seriously. Honesty in our academic work is vital, and we will not knowingly act in ways which erode that integrity. Accordingly, we pledge not to cheat, nor to tolerate cheating, nor to plagiarize the work of others (UWF Student Life Handbook).

Turnitin Software Use: UWF maintains a university license agreement for an online text matching service called Turnitin (see http://uwf.edu/cutla/turnitin.cfm). At instructor’s discretion the instructor will use the Turnitin service to determine the originality of your papers and reports. Your paper or report to Turnitin will be stored in a Turnitin database for as long as the service remains in existence. For this course, you must also submit a copy of your contemporary report in the http://www.turnitin.com/ to generate Originality Report. For quick start see at, http://www.turnitin.com/static/pdf/tii_student_qs.pdf

Class ID: 5769065 Password: eel4242

Warning: The SILILARITY report generated by turnitin.com must be less than 25% for the report to be acceptable and to pass this course. You must not submit the same report which was used previously for credit(s) in another course.

Question #1 on Turnitin Log in: By typing the class ID and the password, I cannot log in to the turnitin.com. What should I do? Answer: Your instructor will register you by the time, the report or the paper is due. If you have used before Turnitin, log in with your e-mail and password. If you forgot your password, you can retrieve the password. If this is first time, select “Create Account”, from the main login menu. Select “Student” The “Create a New Student Account” Type the class ID and password.

General Information: Important deadlines for withdrawal from courses are listed in the academic calendar found at http://uwf.edu/registrar/. Also, this syllabus is based on the ABET master syllabus, which is a separate document and can be fund in the e-learning. Finally, the course instructor reserves the right to make changes to the course syllabus and the schedule with adequate notice to students.
<table>
<thead>
<tr>
<th>Wk</th>
<th>Date</th>
<th>Reading</th>
<th>Topics</th>
<th>Class</th>
<th>Discuss</th>
<th>Quiz</th>
<th>Assignments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Jan 7 – 13</td>
<td></td>
<td>Read course syllabus and</td>
<td>1</td>
<td></td>
<td>Pre-Quiz</td>
<td>Take the Pre-Quiz and read the instructions</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>familiarize with e-learning.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>2.</td>
<td>Jan 14 – 20</td>
<td>1.1 – 1.10</td>
<td>Introduction to Power Electronics</td>
<td>1 1</td>
<td></td>
<td>1 2 3</td>
<td>1. View the scrapy and read the instructions 2. Read the assigned sections</td>
</tr>
<tr>
<td>3.</td>
<td>Jan 21 – 27</td>
<td>2.1 to 2.4, 2.7, 2.10 to 1.13</td>
<td>Diodes</td>
<td>1</td>
<td></td>
<td>1</td>
<td>3. Take Quiz by 11.59 pm on the last day of the week, Sunday 4. Participate in the discussion by both Authoring and Reading by 11.59 pm on the last day of the week, Sunday</td>
</tr>
<tr>
<td>4.</td>
<td>Jan 28 – Feb 3</td>
<td>3.1 to 3.9</td>
<td>Diode Rectifiers</td>
<td>1</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Feb 4 – 10</td>
<td>3.1 to 3.9</td>
<td>Diode Rectifiers</td>
<td>1 2</td>
<td></td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Feb 11 – 17</td>
<td>4.2, 4.10, 4.11</td>
<td>Power Transistors</td>
<td>1</td>
<td></td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Feb 18 – 24</td>
<td>5.1 to 5.7</td>
<td>DC–DC Converters</td>
<td>1</td>
<td></td>
<td>5</td>
<td></td>
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<tr>
<td>8.</td>
<td>Feb 25 – Mar 3</td>
<td>5.1 to 5.7</td>
<td>DC–DC Converters</td>
<td>1 3</td>
<td></td>
<td>5</td>
<td></td>
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<tr>
<td>9.</td>
<td>March 4– 10</td>
<td>6.1 to 6.6, 6.8-6.11</td>
<td>PWM Inverters</td>
<td>1</td>
<td></td>
<td>6</td>
<td></td>
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<td>10.</td>
<td>March 11 – 17</td>
<td></td>
<td>SPRING BREAK</td>
<td>0</td>
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<tr>
<td>11.</td>
<td>March 18 – 24</td>
<td>6.1 to 6.6, 6.8-6.11</td>
<td>PWM Inverters</td>
<td>1 4</td>
<td></td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>March 25 – 31</td>
<td>7.1 to 7.5, 7.9, 7.10</td>
<td>Thyristors</td>
<td>1</td>
<td></td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td>April 1 - 7</td>
<td>8.1 to 8.5</td>
<td>Resonant Pulse inverters</td>
<td>1 5</td>
<td></td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>14.</td>
<td>April 8 – 14</td>
<td>10.1 to 10.6</td>
<td>Controlled Rectifiers</td>
<td>1</td>
<td></td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td>April 15 – 21</td>
<td>10.1 to 10.6</td>
<td>Controlled Rectifiers</td>
<td>1 6</td>
<td></td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>16.</td>
<td>April 22 – 28</td>
<td>Assignments</td>
<td>Surf the web-site, look for books,</td>
<td>1</td>
<td></td>
<td></td>
<td>1. Submit the report (5 to 6 pages) in the IEEE paper format (see Guidelines) to both the e-learning and Turnitin.com by 11:59 pm on April 28 2. Submit PowerPoint (10 -12 slides) by 11:59 pm on April 28</td>
</tr>
<tr>
<td>17.</td>
<td></td>
<td></td>
<td>Contemporary report and PowerPoint of 12 to 15 slides.</td>
<td>1</td>
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<tr>
<td>17.</td>
<td></td>
<td>Final Design Report &amp; Post-Quiz</td>
<td>0</td>
<td>By 11.59 pm on April 28</td>
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<td></td>
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<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td>16</td>
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</tbody>
</table>
Instructions:

- Take all quizzes (multiple-choice type) through the e-learning in the http://elearning.uwf.edu. You will be able to view the Quiz answers on the following Wednesday for a period of four (4) days only.
- All quizzes are open book.
- The contemporary report must be submitted in MS Word document in the http://elearning.uwf.edu and to the http://www.turnitin.com (see the notes for naming files and coversheet). PDF or other files will NOT be acceptable.
- PowerPoint slides for the contemporary report must the submitted in MS Word PowerPoint in the http://elearning.uwf.edu (see the notes for naming files and coversheet). PDF or other files will NOT be acceptable.
- All reports must be submitted along with a cover sheet with your statement and signature. The cover sheet must be at the beginning of your report, not as a separate document. Without the cover sheet, your report will not be graded.
- Your must submit each report to its assigned drop box. That is, you must submit for example Design report to the drop box for Design report. Otherwise, your report will either be acceptable not graded.
Instructions for Naming the Files

- Name your file: Assignment # _ your Name_Date of submission, i.e., Design Report # 1_M H Rashid_1_12_11.
- Each assignment must have the cover sheet with your signature and other information. Otherwise, your work will not be graded for credits.
- Your uwf e-mail serves as your signature. DO NOT USE other commercial e-mails.
- Also submit your assignments in MS Word only in the appropriate submit folder for the specific assignment in the http://elearning.uwf.edu and in the http://www.turnitin.com
- DO NOT send no e-mails or any paper copy.

Cover Page

Name:
Course Number: EEL 4242
Semester: Spring 2013
Assignment:

(Your signature after the statement)
I certify that this assignment is the result of my own efforts.

• Signature Date:
e-mail: uwf e-mail
e-mail: commercial non-uwf email
Question #1: Will there be any penalty if the file name does not follow these file naming instructions?
Answer: Yes, your assignment will not be acceptable if you do not name your file according to these instructions. It is very important that you must follow these instructions and use the correct format. It may seem that the filename may be arbitrary, but in a class of so many students, keeping those files organized for grading is a challenge if they don't follow a strict and consistent naming convention.

Guidelines for Contemporary issue presentation and report

1. Select a topic on the applications of Power Electronics in renewal energy, energy efficiency, transportations, consumer, or industrial or military applications.
3. Write a formal report in MS Word only in the IEEE paper submission format (see the sample attached), NOT a pdf file.
4. Make sure to include a cover sheet at the beginning of the report.
5. Follow the IEEE paper format including your name and affiliations, single line spacing, double column, font roman times, size 10, all margins 1", double columns, etc.
6. Page limit: 5 to 6 pages without the cover page.
7. You report should look like the paper IEEE sample in pdf format (see attached)
8. Use the IEEE MS Word template (see in the e-learning http://elearning.uwf.edu)

The common mistakes in preparing the contemporary report are:
- NO cover page with statement and signature
- NO paper Title
- NO author’s affiliation
- NOT in two columns
- NOT following the IEEE format: font size, page margins, single-space, etc
- NOT following the page limits: 5 to 6 pages (excluding the cover page)
- NOT in MS Word file.

Question #4: Do we have to include a biography portion in the report?
Answer: YES, a short bio (see the MS Word template for the location of the bio). Is an author’s photo required? Not required. But you may want to include one for yourself only, but NOT with your a friend(s) or a family member(s).

Question #5: When you say 'page limit 5-6 pages'. Is that a maximum, minimum, or both?
Answer: Not more than 6 pages and not less than 5 pages excluding the cover page.

Question #6: Does 5-6 pages include the cover page?
Answer: NO. With the cover sheet, it must be 6-7 pages.

Question #7: Are there any requirements as to what kind of references they need to be? How many references are we required to have in our contemporary report?
Answer: NO, but they should be related to the topic. As many as you feel necessary, but should in general be more than 5.

Question #8: What are the common mistakes in preparing the contemporary report?
Answer. The common mistakes in preparing the contemporary report are:

- NO cover or signature page
- NO paper Title
- NO author’s affiliation
- NOT in two columns
- NOT following the IEEE format: font size, page margins, single-space, etc
- NOT following the page limits: 5 to 6 pages excluding the cover sheet.

**Question # 9:** Can we see a sample contemporary report?
Answer: YES, see one sample contemporary report in the e-learning.

**Question # 10:** If the content of the sample report is different from what the syllabus says what should we do? Should we pick one of them as a guideline for the content of the report?
Answer: Yes, The section headings of the sample report may be different, but it should give an idea of how it should look like.

**Question # 11:** Contemporary Report Submission: Where we are supposed to submit the report: e-learning drop box, or turnitin.com
Answer: Submit both in the learning drop box and turnitin.com. Submit the PowerPoint presentation in the e-learning only.

**Question # 12:** Are we allowed to copy pictures from the internet?
Answer: Yes, if you cite the source reference in the text.

**Question # 13:** Are we supposed to email you our paper as an attachment; or is there suppose to be a drop box on the e-learning site?
Answer: No e-mail, submit in the e-learning drop box only.

**Dr. Rashid - Mentor for your Reports**

If your instructor, Dr. Rashid, thinks that your contemporary and/or energy efficiency report(s) are of excellent quality and worthy of sharing with professional community, he may decide to submit your report(s) for presentation in a conference or a journal. He will add his name as the 2nd author being your mentor for the report and make any changes needed for making it acceptable as a conference or a journal paper - before and after the peer review process. Dr. Rashid will sign the IEEE copyright form (see in the e-learning under content). He will try to contact you if the report is accepted for publication in a conference or a journal and if he can locate your contact information. If you do not wish your report to be considered for a possible publication in a conference or a journal, please let Dr. Rashid know with a note in the cover sheet.