EGR 120 Due date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Introduction to Engineering

File: EGR120 – ABET, Licensing and Transfer Information

**Homework Assignment #2 – ABET, Licensing and Transfer Information**

**Reading Assignment:**

* Read Chapter 1 in Engineering Fundamentals – An Introduction To Engineering, 5E by Moaveni.
* TCC Student Handbook for Engineering

**Assignment by last name:**

In most parts below, 5 items are listed (labeled A, B, C, D, and E) that are to be investigated. Each student should only use 1 of the 5 items according to the first letter of the last name, as follows:

|  |  |
| --- | --- |
| First letter of last name | Item to use in each case below |
| A - E | A |
| F - J | B |
| K - O | C |
| P - T | D |
| U - Z | E |

* Create a word-processing document containing the statements and answers to each part of the assignment. For example:

Student Name

Course and section

Assignment Number

***Answer #1***) The following \_\_\_\_\_\_\_\_\_ electives (PLS, PSY, etc) can be used to satisfy the Social Science (or Humanities) Elective: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (assigned part only).

***Answer #2*** \_\_\_\_\_\_\_\_\_ (course number) is available in these semesters: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

***Answer #3***) A minimum GPA of \_\_\_\_\_\_\_\_\_ is required to transfer to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

•

•

***Answer #22***) \_\_\_\_\_\_\_ (college) has \_\_\_\_\_ (how many?) ABET accredited programs. The next ABET General Review is scheduled for \_\_\_\_\_\_\_\_\_\_\_ (list the year(s)).

* Note that URLs and links are changed often. If any links listed do not work, be creative and search until you find the desired information.

**Submitting the assignment:** Submit the following items:

1. (88 points – 4 pts per part) The word processing document described above
2. (12 points) The 2 attachments (FE specs and PE specs) described in the assignment

* If you submit the assignment during class, staple the two required attachments to the word-processing document.
* If you submit the assignment via Canvas, submit 3 documents (the word-processing document and the two attachments).

1. **Tidewater Community College** - go to [**www.tcc.edu**](http://www.tc.cc.va/us/vabeach)

* Browse the site to see what information is available
* Find the **Engineering Curriculum** by following the links below:
* **College Catalog**
* **Curricula of Study: College/University Transfer Programs**
* **Find Engineering (831)**
* Notice that note (1) is listed next to the Humanities Elective and the Social Studies Elective in the A.S. degree in Engineering. The note directs you to a page in the TCC College Catalog. Go back to the college catalog as follows:
* **College Catalog**
* **General Information on: …** and go to the page indicated in the note above.
* An alternative is to select the pdf file for the entire college catalog (***Print all in one pdf***) and go to the page indicated in the note above.
* List all course numbers that can be used to satisfy the elective listed below (assigned part only).

1. Social Studies Elective (list all Political Science courses (PLS) that can be used
2. Social Studies Elective (list all Psychology courses (PSY) that can be used
3. Social Studies Elective (list all Sociology courses (SOC) that can be used
4. Humanities Elective (list all Philosophy courses (PHI) that can be used
5. Humanities Elective (list all Music (MUS) that can be used

***Answer #1***) The following \_\_\_\_\_\_\_\_\_ electives (PLS, PSY, etc) can be used to satisfy the Social Science (or Humanities) Elective: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (assigned part only).

**TCC Student Handbook for Engineering** – Use a printed copy or go to [**www.tcc.edu**](http://www.tc.cc.va/us/vabeach)

* Find the Paul Gordy’s web page by following the links below:
* **Faculty and Staff**
* **E-Directory**
* Enter the instructor’s last name (**Gordy**) and click on **Search**
* Pick the **Detail** link next to the instructor’s name
* Pick the **Homepage** link under the instructor’s contact information
* **TCC Student Handbook for Engineering**
* Check the **Tentative Annual Schedule for Engineering** in the Handbook. During which semester(s) is the following course available (assigned part only)?

A) EGR 140 B) EGR 125 C) EGR 245 D) EGR 246 E) EGR 271

***Answer #2*** \_\_\_\_\_\_\_\_\_ (course number) is available in these semesters: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* Also check the **Transfer Options** listed in the Handbook. What GPA is required to transfer into the following university (assigned part only)?

A) ODU B) Virginia Tech C) University of Virginia

D) George Mason University E) Virginia Military Institute

***Answer #3*** A minimum GPA of \_\_\_\_\_\_\_\_\_ is required to transfer to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Page 3

* List the recommended **Approved EGR Electives** listed in the Handbook for the following programs and universities:

A) Mechanical Engineering at VT B) Chemical Engineering at Virginia Tech

C) Civil Engineering at ODU D) Computer Engineering at ODU

E) Electrical Engineering at ODU

***Answer #4*** The recommended Approved EGR Electives for \_\_\_\_\_\_\_\_\_ (list program and university) are: (list all)

* Check the sections of the Handbook related to transfer to ODU and Virginia Tech. Determine the corresponding ODU course number and VT course number for the TCC course listed below (assigned part only).

A) EGR 120 B) EGR 110 C) EGR 140 D) EGR 245 E) EGR 270

***Answer #5*** The TCC course \_\_\_\_\_\_\_\_\_ transfer to ODU as \_\_\_\_\_\_\_\_\_ and transfers to Virginia Tech as \_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. **Other Engineering programs in Virginia**

##### Determine which BS engineering degrees are offered

* Visit the website for the university listed below (assigned part only).

List all of the BS degrees in Engineering offered at the following university:

A) VCU B) NSU C) UVA D) VT E) ODU

***Answer #6***) \_\_\_\_\_\_\_\_\_ (list the university) offers BS degrees in the following areas of engineering:

3. **National Council of Examiners for Engineering and Surveying (NCEES)**

* Go to the web site for the National Council of Examiners for Engineering and Surveying (NCEES): [www.ncees.org](http://www.ncees.org)
* Browse the web site to find the following information

**FE Exam Specifications**

* List the 7 choices of FE exams (FE Exam Specifications):

***Answer #7***) The 7 choices of FE exams are:

* Select one of the 7 FE Exam Specifications (the one that most interests you) to save or print and submit with your homework.

***Answer #8***) The following FE Exam Specifications are attached to my homework: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* For the **Civil Engineering FE Exam Specifications**, how many questions are on the topic of (assigned part only)?

A) Mathematics B) Statics C) Mechanics of Materials D) Dynamics E) Fluid Mechanics

***Answer #9***) \_\_\_\_\_ questions on the Civil Engineering FE exam are on the topic of \_\_\_\_\_ (assigned part).

* For the **Mechanical Engineering FE Exam Specifications**, how many questions are on the topic of (assigned part only)?

A) Thermodynamics B) Heat Transfer C) Engineering Economics

D) Fluid Mechanics E) Statics

***Answer #10***) \_\_\_\_\_ questions on the Mechanical Engineering FE exam are on the topic of \_\_\_\_\_ (assigned part).

* Download a copy of the **FE-Supplied Reference Handbook** (Submit your email address and a password will be mailed to you for the download). The FE Handbook is also available on the course Canvas site in case you can’t download it.
* Look in the table of contents for the assigned section below. What is the first topic listed in the following section of the FE-Supplied Reference Handbook (assigned part only)?

A) Mathematics B) Statics C) Environmental Engineering

D) Chemistry E) Electrical & Computer Engineering

***Answer #11***) The first topic listed in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (assigned section name) section of the FE-Supplied Reference Handbook is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

* Look in the FE-Supplied Reference Handbook to locate the page number for the following items:

***Answer #12***) The periodic table of the elements is located on page \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

***Answer #13***) A table of trigonometric identities is located on page \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

***Answer #14***) A table of derivatives and integrals is located on page \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

* Determine the passing rates for the most recent FE Exam for the ***area of your choice*** (civil, mechanical, etc).

***Answer #15***) The passing rate for the FE Exam in \_\_\_\_\_\_\_\_\_\_ (list the discipline) was \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**PE Exam Specifications**

* Follow appropriate links on the NCEES web site to find information **on Principles and Practices (PE) Exam Specifications.**
* Select one of the PE Exam Specifications (the one that most interests you) to save or print and submit with your homework.
* ***Answer #16***) The following PE Exam Specifications are attached to my homework: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Open the PE Specifications for the indicated area of ***civil engineering***. What is the first topic listed in the ***breadth*** section? What is the first topic listed in the ***depth*** section?

A) Construction B) Geotechnical C) Structural

D) Transportation E) Water Resources and Environmental

***Answer #17***) For the Civil Engineering - \_\_\_\_\_\_\_\_\_\_\_\_ (list assigned area) PE Exam Specifications, the first topic listed in the ***breadth*** section is \_\_\_\_\_\_\_\_\_\_\_\_\_\_.

***Answer #18***) For the Civil Engineering - \_\_\_\_\_\_\_\_\_\_\_\_ (list assigned area) PE Exam Specifications, the first topic listed in the ***depth*** section is \_\_\_\_\_\_\_\_\_\_\_\_\_\_.

* Determine the passing rates for the most recent PE Exam for the area of your choice (civil, mechanical, etc).

***Answer #19***) The passing rate for the PE Exam in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (list the discipline) was \_\_\_\_\_\_\_\_% for first time test takers and \_\_\_\_\_\_\_\_% for repeat test takers.

* List the 4 steps for becoming a licensed professional engineer (PE) on the NCEES web site.

***Answer #20***) The 4 steps to becoming a licensed professional engineer (PE) on the NCEES web site are:

* Some PE exams are only offered in April, some are only offered in October, and some are offered both in April and October. Determine when the PE exam is offered for the following area.

A) Nuclear Engineering B) Software Engineering C) Chemical Engineering

D) Environmental Engineering E) Industrial Engineering

***Answer #21***) The \_\_\_\_\_\_\_\_\_\_\_\_ (list assigned area) PE Exam is offered every \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (April, October, or April and October).

4. **The Accreditation Board for Engineering and Technology (ABET)**

* Go to the website [**www.abet.org**](http://www.tc.cc.va/us/vabeach)and follow the links below:
* Browse the web site to find the following information.
* For the institution listed below (assigned part only), how many engineering programs are ABET-accredited and when is the next ABET General Review?

A) Old Dominion University B) Virginia Commonwealth University C) University of Virginia

D) George Mason University E) Virginia Polytechnic Institute & State University (Virginia Tech)

***Answer #22***) \_\_\_\_\_\_\_ (college) has \_\_\_\_\_ (how many?) ABET accredited programs. The next ABET General Review is scheduled for \_\_\_\_\_\_\_\_\_\_\_ (list the year(s)).