

6/3/2020

CHEG Faculty Meeting Minutes (Zoom Call)

Faculty Meeting dated

5/22/2020 (Zoom Call)

Attendees

Dr. Michael Gyamerah, Dr. Irvin Osborne-Lee, Dr. Emmanuel Dada, Dr. Kazeem Olanrewaju, Dr. Jorge Gabitto, Dr. Lealon Martin, Dr. Sheena Reeves, Dr. Nabila Shamim, Dr. Keisha Antoine, Dr. Safwat Shakir, Ms. Sachie Etherington, and Ms. Charlesedder Love

The meeting was presided by Dr. Michael Gyamerah and was essentially scheduled to address SACS/ABET Accreditation.

Dr. Gyamerah mentioned the need for the accreditation team to summarize information provided on the one pagers for each outcome for 2018-2019 academic cycle.

ABET/SACS

Dr. Gyamerah reached out to the ABET/SACS accreditation team to present what they have so far concerning accreditation. Dr. Emmanuel Dada took the lead to give an introductory remarks and briefly commented on some of the effort to put all the necessary documents needed to close the loop for both ABET and SACS. He gave highlights of what Dr. Keisha Antoine, a member of the accreditation team, will be presenting per the effort of the Accreditation team to close the loop for both ABET and SACS.

Dr. Antoine started by presenting the tasks accomplished so far with regard to Accounting Management System (AMS) designed for Taskstream Assessment reporting. The AMS is the software platform used by the University to gather Taskstream assessment reporting needed for the SACS Assessment/Self Study Report. She spoke specifically on the tasks accomplished so far with generating performance report needed for us to close the loop for 2019-2020 assessment cycle.

Dr. Antoine presented data generated from Taskstream. The Taskstream data took the form of several consolidated reports titled, "Performance by Rubric Criteria Report – Main Results", that were generated using the aggregate grades for each outcome for CHEG. (see Appendix 1, Table 1). These data are needed for closing the loop for the different evaluation criteria (i.e., outcomes) and formulating an action plan for the upcoming academic year.

The faculty reviewed the data and determined that outcome D1 (Identify, formulate and solve fundamental engineering problems) is still an area of deficiency, i.e., the average of the aggregate Taskstream scores was less than 3 out of 4 for both semesters. This is further supported by ABET aggregate data of 73.8 (which is less than the target average of 75). Additionally, only 61.5% of students met the target average score of 75 points for outcome D1. This was below the department target of 70% of students to be at or above the target average score.

Taskstream aggregate data also revealed that outcome 3 (Communication) had a score of less than 3 out of 4 for both semesters. In the case of this outcome, however, ABET aggregate data gave an average of 79, which was above the target score of 75. This can be attributed to the smoothing of the data that occurs as a result of using a number to identify a range of performance for Taskstream versus using actual scores for ABET.

NOTE: It is expected that Taskstream average score would match the ABET average score. However, oftentimes this was not the case. This can be as a result of using exact scores (grades) to evaluate the outcome average for ABET which when compared with the Taskstream average, we look at the range, e.g., a score of 83.1 and 89 would both yield a Taskstream score of 3, although the scores have a range of 5.9.

It was observed that some outcomes had incomplete data. This was because of missing Taskstream grades. It was discussed that the SACS/ABET Accreditation team can provide more training on Taskstream and accreditation practices.

It was suggested that we:

1. Train new faculty at the start of their employment.
2. Work with PVAMU to open Taskstream at the beginning of the semester.
3. Print out the rubric for each outcome so that faculty can be prepared at the start of a semester.

Additionally, it was observed that sometimes students posted the incorrect assignment to an outcome or to a completely incorrect course or section altogether.

Dr Gabitto commented on the rubric for grading in Taskstream. His concern is the level of detail and how it can be a deterrent to faculty in getting their grading done on time. Dr. Osborne-Lee and Dr. Olanrewaju unanimously advised faculty should focus on key words in the rubric and use it as basis for their evaluation.

Justification for Course Changes

The following faculty changes to the CHEG undergraduate curriculum have been proposed since June 25, 2019 and are in queue for review and approval by PVAMU.

- Introduction of a new 2-credit hour course CHEG 1022, Introduction to Computations in CHEG (refer to proposed CHEG 1022 syllabus), which will be taught in the spring semester of the freshman's year. This course will replace 2 of the 3-credit hours of ELEG 1043 (Computer Applications in Engineering) which is no longer a University core requirement. CHEG 1022 will be an introductory course of important chemical engineering concepts and computations. Students will learn how to classify problems based on their mathematical nature. Topics include basic introductory calculation involving material and energy balances, fluid flow phenomena, fundamental thermodynamics and kinetics, and introductory software and simulation tools such as Visual Basic and CHEMCAD. This new course (CHEG 1022) will ensure our students

acquire the skills needed in subsequent courses. The new course will build on our revamped and re-organized course CHEG 1021, Introduction to Chemical Engineering, and will be a pre-requisite for CHEG 2053, Material & Energy Balances (refer to Curriculum Committee Minutes dated 6/25/2019 and CHEG-Summary of Curriculum Changes.docx).

- CHEG 3011, Chemical Engineering Laboratory I, a one-credit hour course, which is already in the course inventory will be reintroduced. This course will be revamped to include elements and methods of scientific inquiry and investigation, experimental data analysis, modeling and simulation, and dissemination of scientific results, including: design of experiments, product and process design, model validation and verification, literature survey and review techniques, and effective technical reporting modes. The combination of CHEG 3011, Chemical Engineering Laboratory I (1 credit) and CHEG 1022, Introduction to Computations in CHEG (2 credits) will replace the 3 credit hours for ELEG 1043, Computer Applications in Engineering. Thus, ELEG 1043 will be eliminated from the chemical engineering degree plan and curriculum without changing the credit hour requirement of 131 hours for the chemical engineering degree (refer to Curriculum Committee Minutes dated 6/25/2019 and CHEG-Summary of Curriculum Changes.docx).
- Making CHEG 2053 (Material and Energy Balances) a pre-requisite of CHEG 2043 (Chemical Engineering Thermodynamics I). Currently, it is allowed that the two courses be taken concurrently. It is thought that this rearrangement of the order of these classes would improve students learning outcome D1 in CHEG 2043 (refer to Curriculum Committee Minutes dated 6/25/2019 and CHEG-Summary of Curriculum Changes.docx). CHEG 2043, Chemical Engineering Thermodynamics I, will be taught in the spring of the sophomore year. Even though CHEG 2053, Material & Energy Balances, and CHEG 2043, Chemical Engineering Thermodynamics I, will be taught every semester (as may be required by students retaking the two courses), our degree plan and advisement will clearly show the sequence of flow.
- A recitation section for CHEG 2053, Material & Energy Balances will be added for reinforcement of, Calculus I principles and engineering problem-solving skills.
- A change in course numbers to make Material and Energy Balances which is currently CHEG 2053 change to CHEG 2043 and to make Chemical Engineering Thermodynamics I, which is currently CHEG 2043 change to CHEG 2053 to reflect the sequence that we would advise the students to take these courses. These numbers will reflect the new Texas Common Course Numbering (TCCN) system course numbers when the curriculum updates are approved (refer to Curriculum Committee Minutes dated 6/25/2019 and CHEG-Summary of Curriculum Changes.docx).
- CVEG 2073, Professional Development Core Area 1, is a 3-credit course, which will replace GNEG 1121, Math Applications Laboratory I (1 credit), GNEG 2021, Math Applications Laboratory II (1 credit), and GNEG 3061, Engineering Project Management (1 credit). Elements of GNEG 1121 and GNEG 2021 will be addressed in the CHEG-focused CHEG 1022 that is under review (see proposed CHEG 1022 syllabus). Note that the introduction of a core course for “Global Studies” was mandated by the university for every enrolled student. This core course had to be accommodated without

changing the university 131-credit hour requirement for chemical engineering. This was accomplished by removing ELEG 1043 from the core requirement and replacing it with CVEG 2073.

Result of Discussion

CHEG faculty formally passed a motion (proposed by Dr. Irvin Osborne-Lee and seconded by Dr. Sheena Reeves) to approve the curriculum changes that have been put forth to the College of Engineering, COE (see Appendix 2). The motion states that we as faculty approve and accept those curriculum changes we submitted as our action plan moving forward to address those deficiencies in meeting program outcomes just reviewed by our SACS/ABET Committee. The department voted on the motion and it was unanimously passed. As discussed earlier, the proposed changes from June 2019 are given even further support by an analysis of the Taskstream outcomes where some outcomes had an average less than the target average of 75%.

The following appendices (Appendix 1: Summary of Taskstream Grades for fall 2019 and spring 2020 by Outcome, Appendix 2: SUMMARY OF CURRICULUM UPDATES, and Appendix 3: PVAMU-Syllabus-CHEG Computations 2020 and 2019 CHEG Degree Plan Fillable) are attached to the minutes of the meeting of the department of chemical engineering held on May 22nd, 2020.

The minutes of the meeting is submitted by the Department of Chemical Engineering representative of the SACS/ABET Committee members (Dr. Kazeem Olanrewaju, Dr. Keisha Antoine, and Dr. Emmanuel Dada), Date: June 3, 2020

Appendix 1

Table 1. Summary of Taskstream Grades for Fall 2019 and Spring 2020 by Outcome.

Outcome	Courses	SACS Fall 2019 Average Score	SACS Spring 2020 Average Score	SACS Average Score 2019- 2020 Academic Year	ABET Aggregate Average Score	ABET Aggregate % of students meeting expected average
1	3043 (2,S), 3063 (2,S), 4033 (2,F)	3.68	3.41	3.5	75.2	61.9
2	3023 (F), 3063 (S), 4472 (F), 4482 (S)	3.01	2.88	2.9	76.5	64.9
3	2003*(A), 4011 (F), 4031 (S), 4482 (S)	2.49	2.99	2.7	79	81.7
4	2003*(A), 4043 (F), 4472 (F)	2.93	3.54	3.2	83.9	94.1
5	4011 (F), 4031 (S), 4482 (S)	2.98	3.3	3.1	79.7	77.0
6	4011 (F), 4031 (S)	3.38	3.39	3.4	76.6	64.5
7	3023 (F), 4472 (F)	3.17		3.2	84.7	86.2
D1	1021 (A), 2003* (A), 2013 (A), 2043 (A), 2053 (A), 3013 (F), 3053 (F)	2.74	2.97	2.9	73.8	61.5

Appendix 2

SUMMARY OF CURRICULUM UPDATES

- A Curriculum review showed that making **CHEG 2053** (Material and Energy Balances) a pre-requisite of **CHEG 2043** (Chemical Engineering Thermodynamics I) would improve students learning outcome in **CHEG 2043**.
- A change in course numbers was therefore, recommended to make *Material and Energy Balances* **CHEG 2043** and *Chemical Engineering Thermodynamics I* **CHEG 2053**. These numbers will reflect the new TCCN course numbers when the curriculum updates are approved.
- A proposed new 2-credit hour course (CHEG 1022) will be taught in the spring semester of the freshman's year and will replace 2 of the 3-credit hours of ELEG 1043 (Computer Applications in Engineering) which is no longer a University core requirement. This new course (CHEG 1022) will ensure our students acquire the skills needed in subsequent courses. The new course will build on our revamped and re-organized course CHEG 1021 and will be a pre-requisite for CHEG 2043 (Material & Energy Balances).
- CHEG 2043 (Material & Energy Balances) with a recitation section added following the elimination of GNEG 1121 and GNEG 2021 will be taught in the fall semester of the sophomore year and will be a pre-requisite for CHEG 2053 (Chemical Engineering Thermodynamics I) to be taught in the spring of the sophomore year. Even though the two courses will be taught every semester (as may be required by students retaking the two courses), our degree plan and advisement will clearly show the sequence flow.
- Reintroduction in the degree plan of CHEG 3011 (Chemical Engineering Laboratory I) that has been revamped to include elements and methods of scientific inquiry and investigation, experimental data analysis, modeling and simulation, and dissemination of scientific results, including: design of experiments, product and process design, model validation and verification, literature survey and review techniques, and effective technical reporting modes. The reintroduction of CHEG 3011 to the degree plan serves to replace the third credit hour that will result with the elimination of ELEG 1043 from the degree plan.
- Re-introduction of CHEG 3011 into the degree plan to strengthen effective written communication, data analysis and reporting skills necessitates making CHEG 3011 a prerequisite for CHEG 4011 (Chemical Engineering Lab II). In addition, CHEG 4011 becomes a co-prerequisite for CHEG 4031 (Chemical Engineering Lab II) that may be taken concurrently with CHEG 4031 to ensure that all students taking CHEG 4031 have also taken the prerequisite for CHEG 4011 which is CHEG 3011.
- A change in the course numbers of the two courses Chemical Engineering Thermodynamics II (CHEG 3053) and Separation Processes (CHEG 3043) is being proposed reflect the fact that Chemical Engr. Thermo. II is a prerequisite for Separation Processes. Hence, Chemical Engr. Thermo II should now have the course number CHEG 3043 and Separation Processes CHEG 3053. The following four courses that have Separations as prerequisite have the new course number CHEG 3053 applied: CHEG 4043 (Process Design and Analysis); CHEG 40183 (Design of Process Engineering Systems); CHEG 4472 (Senior Design I) and CHEG 4482 Senior Design II. Chemical Reaction Kinetics and Reactor Design (CHEG 3063) which has Thermo. II (CHEG 3043) as prerequisite will now have the prerequisites as: MATH 2043 and CHEG 3043 and CHEG 2013 and CHEM 2043.
- Correction of the program requirements for the BSCE as printed in the current catalog to include replacement of GNEG 3051 (Fundamentals of Engineering) with GNEG 3061 (Engineering Project Management); catalog was to be updated to reflect previously approved

requirements but is no longer necessary as GNEG 3061 has been eliminated from the degree plan).

- GNEG 1121, 2021 and GNEG 3051/GNEG3061 have been eliminated from the curriculum, and have been replaced by the global studies core elective

Summary of Change Requests for Chemical Engineering /College of Engineering

Change Requested by Category	Rationale Code
I. DELETIONS	
GNEG1121- Engr Lab II for Math GNEG 2021)- Engr Lab II for Math GNEG 3051)- Fundamentals of Engineering	A new “Global Studies” core area course will replace ELEG 1043 which is being moved out of the University Core in the Professional Development Area I for the College/CHEG Program. The new 3 credit hour course in the Global Studies area will be added to the degree plan and hence 3 credit hours from the three courses have to be removed.
ELEG 1043	Curriculum review revealed need to increase use of computing skills (CHEG 1022) throughout the curriculum
II. ADDITIONS	
ADDITIONS TO INVENTORY	
CHEG 1022 Introduction to Computing in CHEG	Curriculum review revealed need to increase use of computing skills (CHEG 1022) throughout the curriculum.
III. Pre-requisite changes; Course description change; Course title typo correction	
CHEG 2053 Material and Energy Balances	Curriculum review revealed the need to add the new course CHEG 1022 as pre-requisite. Pre-requisites for the CHEG 2053 are now: Prerequisites: CHEG 1022 ; CHEM 1043 or CHEM 1034 and PHYS 2513 .
CHEG 2043 Chemical Engineering Thermodynamics I	Curriculum review showed that making CHEG 2053 (Material and Energy Balances) a pre-requisite of CHEG 2043 would improve students learning outcome in CHEG 2043 .
CHEG 3011 Chemical Engineering Lab I	Curriculum review showed the need to strengthen writing and data analysis skills. The course description has been modified and MATH 3023 Probability and Statistics made a co-requisite. The new co-and pre-requisites are: Co-requisites: MATH 3023 , CHEG 3013 , CHEG 3023 , and CHEG 3053 . Prerequisites: PHYS 2511 and PHYS 2521 and CHEM 1021 and COMM 1003 and ENGL 1123 or ENGL 1143 .
CHEG 4011 Chemical Engineering Lab II	Curriculum review with re-introduction of CHEG 3011revealed the need to make this course a pre-requisite of CHEG 4011: The pre-requisites of CHEG 4011 are now: CHEG 3011 , CHEG 3023 and CHEG 3043 and COMM 1003 and ENGL 1133 or ENGL 1143 and PHYS 2511 and PHYS 2521 and CHEM 1021 . CHEG 4011becomes a pre-

	requisite for CHEG 4031 but may be taken concurrently.
CHEG 3043) Separations and CHEG 3053 Chemical Engr. Thermo. II	A change in the course numbers of the two courses is being made to reflect CHEG 3053 being a prerequisite of CHEG 3043. Hence, Chemical Engr. Thermo II should now have course number CHEG 3043 and Separations CHEG 3053. (i) The following four courses that have Separations Processes as one of the prerequisites will have the new course number CHEG 3053 applied: CHEG 4043 (Process Design and Analysis); CHEG 4183 (Design of Process Engineering Systems); CHEG 4472 (Senior Design I) and CHEG 4482 Senior Design II. (ii) Chemical Reaction Kinetics and Reactor Design (CHEG 3063) which has Thermo. II (CHEG 3043) as prerequisite will now have the prerequisites as: MATH 2043 and CHEG 3043 and CHEG 2013 and CHEM 2043.
IV. CHEG DEGREE PROGRAM UPDATES	
Remove ELEG 1043 and replace with CHEG 1022 and CHEG 3011 reintroduced along with addition of a zero credit recitation section to CHEG 2043 (Material & Energy Balances).	Curriculum review revealed need to increase use of computing skills (CHEG 1022) throughout the curriculum and strengthen writing and data analysis skills (CHEG 3011) in senior lab courses including the capstone. Recitation will strengthen math skills improving outcomes in problem solving.
Remove GNEG 1121, GNEG 2021 the two math application courses and GNEG 3051 and replace with 3-hour Global Studies Core Elective (e.g. CVEG 2073)	Response to University core change. Program change addresses new core objectives with focus on global studies. Recitation section added to CHEG 2043 (material & Energy Balances) compensates for loss of math application courses (GNEG 1121 & 2021).

Appendix 3

Refer to the Documents attached:

- PVAMU-Syllabus-CHEG Computations 2020
- 2019 CHEG Degree Plan Fillable

**CHEG 1022-Pxx
Fall 2020**

Instructor: Sheena M. Reeves
Section # and CRN: TBD
Office Location: C.L. Wilson 201D
Office Phone: 936-261-9413
Email Address: smreeves@pvamu.edu
Office Hours: TBD
Mode of Instruction: Face to Face

Course Location: TBD
Class Days & Times: TBD
Catalog Description: Credit 2 semester hours. An introductory course into the importance of concepts and computations in chemical engineering. Students will learn how to classify problems based on their mathematical nature. Topics include material and energy balances, fluid flow phenomena, fundamental thermodynamics and kinetics, and introductory software and simulation tools such as Visual Basic and CHEMCAD.

Prerequisites: CHEG 1011 or equivalent
Co-requisites: MATH 1024

Required Texts: Fundamental Concepts and Computations in Chemical Engineering by Vivek Utgikar, Prentice Hall, 1st Edition

Recommended Texts: Excel VBA: The Ultimate Beginner's Guide to VBA Programming Step by Step by David A. Williams, 2nd Edition

Student Learning Outcomes:

	Upon successful completion of this course, students will be able to:	Program Learning Outcome # Alignment	Core Curriculum Outcome Alignment
1	Classify fundamental chemical engineering problems based on their mathematical nature	1, 2, 3	
2	Formulate and solve basic calculations in fundamental chemical engineering problems such as material and energy balances.	1, 2, 3	
3	Use software such as Visual Basic (VBA), MATLAB, and CHEMCAD to perform fundamental chemical engineering computations and simulations	1, 2, 3	

TASKSTEAM COURSE OUTCOMES

Course Outcome 1 (D1): This outcome is a departmental outcome. Students will have an ability to identify, formulate, and solve fundamental engineering problems by applying principles of engineering, science, and mathematics.

1. Classify simple chemical engineering problems based on their mathematical nature.

Students are able to:

- (i) Given a problem statement, identify chemical engineering measurement variables, the units of the variables, and systems of units.
- (ii) Perform unit conversions for common chemical engineering measurements.
- (iii) Classify problem as continuous or batch, steady-state, or transient, static or dynamic, ideal or non-ideal.
- (iv) Sketch a diagram depicting a scenario given in the problem statement.
- (v) Select the best approach for solving a problem.

2. Formulate and solve basic calculations in simple chemical engineering problems such as material and energy balances.

Students are able to:

- (i) Solve a system of equations using algebraic techniques.
- (ii) Perform mass or mole balances on single or multiple units.
- (iii) Perform balances on batch or continuous systems.
- (iv) Determine balances for systems at steady state.
- (v) Calculate mole and mass fractions.
- (vi) Separate and integrate kinetic and fluid flow equations.

3. Use software such as Visual Basic (VBA), MATLAB, and CHEMCAD to perform simple chemical engineering computations and simulations.

Students are able to:

- (i) Use Microsoft Excel VBA to perform loops, what-if-then, and other coding calculations including MACROS.
- (ii) Use MATLAB to solve a system of linear equations.
- (iii) Use CHEMCAD to simulate the conversion of multiple units such as mixing or separation.

Major Course Requirements

Method of Determining Final Course Grade

Course Grade Requirement	Value	Total
1) Homework	20	20
2) Computer Assignments	20	20
3) Midterm	20	20
4) Quiz	20	20
5) Final Exam	20	20

Total:

Grading Criteria and Conversion:

A = 90 – 100%
B = 80 – 89.9%
C = 70 – 79.9%
D = 60 – 69.9%
F = less than 60%

Detailed Description of Major Assignments:

Assignment Title or Grade Requirement

Description

Homework

Homework assignments will include common chemical engineering processes and the basic equations associated with the processes.

Computer Assignments

Students will utilize computer software such as Visual Basic, Visio, and CHEMCAD

	to complete basic calculations.
Midterm	The midterm exam will test the student's knowledge of chemical engineering fundamentals and the mathematical skills required for calculations.
Quiz	Students are expected to complete reading assignments. Reading assignments will serve as the basis for class discussions and quizzes.
Final Exam	The final exam will cover the common calculations in chemical engineering topics such as material and energy balances, thermodynamics and fluid flow.

Course Procedures or Additional Instructor Policies

Taskstream

Taskstream is a tool that Prairie View A&M University uses for assessment purposes. One or more of your assignments may be required for submission as an "artifact," an item of coursework that serves as evidence that course objectives are met. More information will be provided during the semester, but for general information, you can visit Taskstream via the link in eCourses.

Semester Calendar

Week One: Course Syllabus Review, Discussion of Chemical Engineering Profession

Readings: Utgikar Chapters 1
Assignment (s):

Week Two: Chemical Products and Industries

Readings: Utgikar Chapters 2
Assignment (s): Homework 1

Week Three: Chemical Engineering Curriculum Importance/Long Range Plan

Readings: Utgikar Chapters 3
Assignment (s): Homework 2

Week Four: Introduction to Computations in Chemical Engineering: Basic

Readings: Utgikar Chapters 4.1 – 4.2
Assignment (s): Quiz 1

Week Five: Introduction to Computations in Chemical Engineering: Algorithms

Readings: Utgikar Chapters 4.3
Assignment (s): Computer Assignment 1

Week Six: Computer Software: Excel and VBA

Readings: Visual Basics Handout
Assignment (s): Computer Assignment 2

Week Seven: Midterm

Readings: Midterm Review Handout
Assignment (s): Midterm

Week Eight:	Fluid Flow Computations
Readings:	Utgikar Chapters 5
Assignment (s):	Homework 3
Week Nine:	Material Balance Computations
Readings:	Utgikar Chapters 6
Assignment (s):	Quiz 2
Week Ten:	Energy Balance Computations
Readings:	Utgikar Chapters 7
Assignment (s):	Homework 4
Week Eleven:	Computer Software: Excel #2
Readings:	Excel Example
Assignment (s):	Computer Assignment 3
Week Twelve:	Chemical Engineering Thermodynamics Calculations
Readings:	Utgikar Chapters 8
Assignment (s):	Quiz 3
Week Thirteen:	Chemical Engineering Kinetics Calculations
Readings:	Utgikar Chapters 9
Assignment (s):	Homework 5
Week Fourteen:	Computer Software: Kinetics in CHEMCAD
Readings:	CHEMCAD Example
Assignment (s):	Computer Assignment 4
Week Fifteen:	Computer Software: MATLAB Advanced Calculations
Readings:	MATLAB Handout
Assignment (s):	Quiz 4
Week Sixteen:	Final Exam

Student Support and Success

John B. Coleman Library

The library and its partners have as their mission to provide resources and instructional material in support of the evolving curriculum, as a partner in Prairie View A&M University's mission of teaching, research, and service and to support the University's core values of access and quality, diversity, leadership, relevance, and social responsibility through emphasis on ten key areas of service. It maintains library collections and access both on campus, online,

and through local agreements to further the educational goals of students and faculty.
<https://www.pvamu.edu/library/> Phone: 936-261-1500

University Tutoring Center

The Center offers tutoring via peer tutoring. The services include workshops (i.e., Save My Semester, Recalculate Your Route), seminars (i.e., Tools You Can Use: TI-84), group review sessions (i.e., College Algebra Topic Reviews, GRE Preparation), group study opportunities (i.e., TSIA, HESI, Study Break, Exam Cram), and test-taking strategies (How to take Notes, Study Buddy, 5 Day Study Guide). The Learning Curve is a nationally certified tutoring program through the National Tutoring Association. The peer tutors are trained and certified by the coordinator each semester. Location: J.B. Coleman Library Rm. 307. Phone: 936-261-1561

The Student Academic Success Center

The Student Academic Success Center is designed to help Prairie View students in their second year and beyond navigate towards graduation by providing the following services: Academic Advisement, Targeted Tutorials for Personalized Learning, Campus-Wide Referrals, and Academic & Social Workshops. Location: J.B. Coleman Library Rm. 306. Phone: 936-261-1040

Writing Center

The Writing Center provides student consultants on all aspects of the writing process and a variety of writing assignments. Writing Center consultations assist students in such areas as prewriting, brainstorming, audience awareness, organization, research, and citation. Students taking on-line courses or courses at the Northwest Houston Center or College of Nursing may consult remotely or by email. Location: Hilliard Hall Rm. 121. Phone: 936-261-3724

Student Counseling Services

The Student Counseling Services unit offers a range of services and programs to assist students in maximizing their potential for success: short-term individual, couples, and group counseling, as well as crisis intervention, outreach, consultation, and referral services. The staff is licensed by the State of Texas and provides assistance to students who are dealing with academic skills concerns, situational crises, adjustment problems, and emotional difficulties. Information shared with the staff is treated confidentially and in accordance with Texas State Law. Location: Owens-Franklin Health Center Rm. 226. Phone: 936-261-3564

Testing

The Department of Testing administers College Board CLEP examinations, the HESI A2 for pre-nursing majors, LSAT for law school applicants and MPRE for second-year law students, the Experiential Learning Portfolio option, the Texas Success Initiative (TSI) Assessment, which determines college readiness in the state, and exam proctoring, among other service such as SAT and ACT for high school students. Phone: 936-261-3627

Office of Disability Services

As a federally-mandated educational support unit, the Office of Disability Services serves as the repository for confidential disability files for faculty, staff, and students. For persons with a disability, the Office develops individualized ADA letters of request for accommodations. Other services include: learning style inventories, awareness workshops, accessibility pathways, webinars, computer laboratory with adapted hard and software, adapted furniture, proctoring of non-standardized test administrations, ASL interpreters, ALDs, digital recorders, livescribe, Kurtzweil, and a comprehensive referral network across campus and the broader community. Location: Evans Hall Rm. 317. Phone: 936-261-3585

Veteran Services

Veterans Services works with student veterans, current military and military dependents to support their transition to the college environment and continued persistence to graduation. The Office coordinates and certifies benefits for both the G.I. Bill and the Texas Hazlewood Act. Location: May Hall Rm. 118. Phone: 936-261-3563

Office for Student Engagement

The Office for Student Engagement delivers comprehensive programs and services designed to meet the co-curricular needs of students. The Office implements inclusive and accessible programs and services that enhance student development through exposure to and participation in diverse and relevant social, cultural, intellectual, recreational, community service, leadership development and campus governance. Location: Memorial Student Center Rm. 221. Phone: 936-261-1340

Career Services

Career Services supports students through professional development, career readiness, and placement and employment assistance. The Office provides one-on-one career coaching, interview preparation, resume and letter writing, and career exploration workshops and seminars. Services are provided for students at the Northwest Houston Center and College of Nursing in the Medical Center twice a month or on a requested basis. Distance Learning students are encouraged to visit the Career Services website for information regarding services provided. Location: Evans Hall Rm. 217. Phone: 936-261-3570

University Rules and Procedures

Disability Statement (Also See Student Handbook):

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact Disability Services, in Evans Hall, Room 317, or call 936-261-3585/3.

Academic Misconduct (See Student Handbook):

You are expected to practice academic honesty in every aspect of this course and all other courses. Make sure you are familiar with your Student Handbook, especially the section on academic misconduct. Students who engage in academic misconduct are subject to university disciplinary procedures.

Forms of Academic Dishonesty:

1. Cheating: deception in which a student misrepresents that he/she has mastered information on an academic exercise that he/she has not mastered; giving or receiving aid unauthorized by the instructor on assignments or examinations.
2. Academic misconduct: tampering with grades or taking part in obtaining or distributing any part of a scheduled test.
3. Fabrication: use of invented information or falsified research.
4. Plagiarism: unacknowledged quotation and/or paraphrase of someone else's words, ideas, or data as one's own in work submitted for credit. Failure to identify information or essays from the Internet and submitting them as one's own work also constitutes plagiarism.

Nonacademic Misconduct (See Student Handbook)

The university respects the rights of instructors to teach and students to learn. Maintenance of these rights requires campus conditions that do not impede their exercise. Campus behavior that interferes with either (1) the instructor's ability to conduct the class, (2) the inability of other students to profit from the instructional program, or (3) campus behavior that interferes with the rights of others will not be tolerated. An individual engaging in such disruptive behavior may be subject to disciplinary action. Such incidents will be adjudicated by the Dean of Students under nonacademic procedures.

Sexual Misconduct (See Student Handbook):

Sexual harassment of students and employers at Prairie View A&M University is unacceptable and will not be tolerated. Any member of the university community violating this policy will be subject to disciplinary action.

Title IX Statement

Prairie View A&M University (PVAMU) is committed to supporting students and complying with the Texas A&M University System non-discrimination policy. It seeks to establish an environment that is free of bias, discrimination, and harassment. If you experience an incident of sex- or gender-based discrimination, including sexual harassment, sexual assault or attempted sexual assault, we encourage you to report it. While you may talk to a faculty member about an incident of misconduct, the faculty member must report the basic facts of your experience to Ms. Alexia Taylor, PVAMU's Title IX Coordinator. If you would like to speak with someone who may be able to afford you privacy or confidentiality, there are individuals who can meet with you. The Title IX Coordinator is designated to handle inquiries regarding non-discrimination policies and can assist you with understanding your

options and connect you with on- and off-campus resources. The Title IX Coordinator can be reached by phone at 936-261-2123 or in Suite 013 in the A.I. Thomas Administration Building.

Class Attendance Policy (See Catalog for Full Attendance Policy)

Prairie View A&M University requires regular class attendance. Attending all classes supports full academic development of each learner whether classes are taught with the instructor physically present or via distance learning technologies such as interactive video and/or internet.

Excessive absenteeism may result in a student's course grade being reduced or in assignment of a grade of "F". Absences are accumulated beginning with the first day of class during regular semesters and summer terms.

Student Academic Appeals Process

Authority and responsibility for assigning grades to students rests with the faculty. However, in those instances where students believe that miscommunication, errors, or unfairness of any kind may have adversely affected the instructor's assessment of their academic performance, the student has a right to appeal by the procedure listed in the Catalog and by doing so within thirty days of receiving the grade or experiencing any other problematic academic event that prompted the complaint.

TECHNICAL CONSIDERATIONS

Minimum Recommended Hardware and Software:

- Intel PC or Laptop with Windows 7; Mac with OS X; Smartphone or iPad/Tablet with Wi-Fi
- High speed Internet access
- 8 GB Memory
- Hard drive with 320 GB storage space
- 15" monitor, 800x600, color or 16 bit
- Sound card w/speakers
- Microphone and recording software
- Keyboard & mouse
- Most current version of Google Chrome or Firefox

Note: Be sure to enable Java & pop-ups in the Web browser preferences

Participants should have a basic proficiency of the following computer skills:

- Sending and receiving email
- A working knowledge of the Internet
- Proficiency in Microsoft Word (or a program convertible to Word)
- Proficiency in the Acrobat PDF Reader
- Basic knowledge of Windows or Mac O.S.

Netiquette (online etiquette):

Students are expected to participate in all discussions and virtual classroom chats as directed. Students are to be respectful and courteous to others on discussions boards. Foul or abusive language will not be tolerated.

Technical Support:

Students should go to <https://mypassword.pvamu.edu/> if they have password issues. The page will provide instructions for resetting passwords along with whom to contact if login issues persist. For other technical questions regarding eCourses, call the Center for Instructional Innovation and Technology Services at 936-261-3283

Communication Expectations and Standards:

Emails or discussion postings will receive a response from the instructor, usually in less than 48 hours. Urgent emails should be marked as such. Check regularly for responses.

Discussion Requirement:

Online courses often require minimal to no face-to-face meetings. However, conversations about the readings, lectures, materials, and other aspects of the course can take place in a seminar fashion. This will be accomplished by the use of the discussion board. The exact use of discussion will be determined by the

instructor.

It is strongly suggested that students type their discussion postings in a word processing application and save it to their PC or a removable drive before posting to the discussion board. This is important for two reasons: 1) If for some reason your discussion responses are lost in your online course, you will have another copy; 2) Grammatical errors can be greatly minimized by the use of the spell-and-grammar check functions in word processing applications. Once the post(s) have been typed and corrected in the word processing application, it/they should be copied and pasted to the discussion board.

Degree Academic Map

The Sample Schedule serves as a general guideline to help you build a full schedule each term.

This degree program requires a total of 131 semester credit hour. Chemical Engineering

Department: _____ Chemical Engineering _____ Degree: _____ BSCHE _____

Program/Major: _____ Chemical Engineering _____

Year 1

Fall (Credit hours: 15)

SUBJ	NUM	TITLE	SCH	TCCN	Semester Completed
MATH	1124	Calculus with Analytic Geometry I	4	MATH 2413	
CHEG	1011/1021	Intro to Engr., Comp Sci. & Tech./Intro Chem. Engr. Lab.	2	ENGR 1201*	
ELEG	1043	Computer Applications in Engineering	3	COSC 1320	
COMM	1003	Fundamentals of Speech Communication	3	SPCH 1311	
ENGL	1123	Freshman Composition I	3	ENGL 1301	

Spring (Credit hours: 16)

SUBJ	NUM	TITLE	SCH	TCCN	Semester Completed
MATH	2024	Calculus with Analytic Geometry II	4	MATH 2414	
CHEM	1034	Chemistry for Engineers	4		
CHEM	1021	Inorganic Chemistry Laboratory II	1	CHEM 1112	
PHYS	2513	University Physics I	3	PHYS 2325	
PHYS	2511	University Physics Lab I	1	PHYS 2125	

SUBJ	NUM	TITLE	SCH	TCCN	Semester Completed
ENGL	1143	Technical Writing	3	ENGL 2311	

Summer (Credit hours: 6)

SUBJ	NUM	TITLE	SCH	TCCN	Semester Completed
POSC	1113	American Government I	3	GOVT 2305	
HIST	1313	U.S. History to 1876	3	HIST 1301	

Year 2

Fall (Credit hours: 16)

SUBJ	NUM	TITLE	SCH	TCCN	Semester Completed
CHEG	2013	Materials Science	3		
CHEG	2053	Material and Energy Balances	3	ENGR 2333*	
CHEM	2033	General Organic Chemistry I	3		
PHYS	2523	University Physics II	3	PHYS 2326	
PHYS	2521	University Physics Lab II	1	PHYS 2126	
MATH	2043	Differential Equations I	3	MATH 2320	

Spring (Credit hours: 16)

SUBJ	NUM	TITLE	SCH	TCCN	Semester Completed
CHEM	2043	General Organic Chemistry II	3		
CHEG	2003	Economic Analysis and Technical Applications	3	ENGR 2308*	

SUBJ	NUM	TITLE	SCH	TCCN	Semester Completed
CHEG	2043	Chemical Engineering Thermodynamics I	3	ENGR 2334*	
ELEG	2053	Introduction to Electrical Engineering	3		
CVEG	2454	Statics and Dynamics	4	ENGR 2403*	

Year 3

Fall (Credit hours: 15)

SUBJ	NUM	TITLE	SCH	TCCN	Semester Completed
MATH	3023	Probability and Statistics	3		
CHEM	3413	Physical Chemistry I	3		
CHEG	3013	Heat, Mass, and Momentum Transport	3		
CHEG	3023	Unit Operations	3		
CHEG	3053	Chemical Engineering Thermodynamics II	3		

Spring (Credit hours: 17)

SUBJ	NUM	TITLE	SCH	TCCN	Semester Completed
MATH	4173	Advanced Math for Engineers	3		
CHEM	3423	Advanced Chemistry Elective (Physical Chemistry II; Biochemistry etc.)	3		
CHEM	2032	Chemistry Lab Elective (General Organic Chemistry Laboratory I; Gen. Org. Chem. Lab II)	2		
CHEG	3043	Equilibrium Stage Separation Processes	3		
CHEG	3063	Chemical Reaction Kinetics and Reactor Design	3		
CVEG	2073	Professional Development Core Area 1 (Global Development Issues; alternatives include ECON 2003; FINA 2133; HIST 1813, 1823; POSC 2503 etc.)	3		

Year 4

Fall (Credit hours: 15)

SUBJ	NUM	TITLE	SCH	TCCN	Semester Completed
CHEG	4011	Chemical Engineering Laboratory II	1		
CHEG	4033	Process Dynamics and Control	3		
CHEG	4043	Chemical Process Design and Analysis	3		
CHEG	4472	Senior Design and Professionalism I	2		
CHEG	4133	Technical Elective (Process Modeling and Simulation)	3		
HIST	1323	US History 1876 – Present	3	HIST 1302	

Spring (Credit hours: 15)

SUBJ	NUM	TITLE	SCH	TCCN	Semester Completed
CHEG	4031	Chemical Engineering Laboratory III	1		
CHEG	4103	Technical Elective (Special Topic)	3		
CHEG	4482	Senior Design and Professionalism II	2		
HUMA	1303	Language/Philosophy/Culture Core Area Elective (Introduction to Humanities ; alternatives include ENGL 2153, 2383, 2333; PHIL 2023, 2303; ARCH 2233, 2243; ARTS 2233 etc.)	3		
ARTS	1203	Creative Arts Core Area Elective (Introduction to Visual Arts ; alternatives include DRAM 1103, 2213, 2223; ARCH 1253; ARTS 2283; COMM 2643; MUSC 1313, 1213, 2333, 2343 etc.)	3		
POSC	1123	Texas Government	3		

* Houston Community College Course Numbers.

**CHEM 1033 and 1043 together meet the same requirement as CHEM 1034. Eligibility for CHEM 1034 is established by completing CHEM 1013 or 1033 as a prerequisite, or passing the Chemistry for Engineers Readiness Test.

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