February 8, 2019

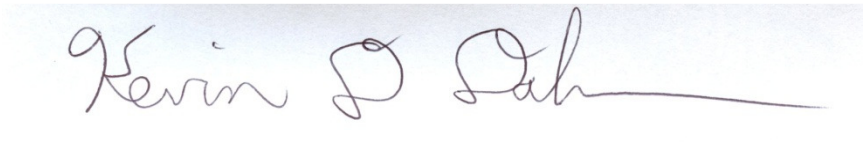
Dear Lindback Award Selection Committee:

I was honored and pleased to receive the news that I had been nominated for this award by Dr. Stephanie Farrell. My application for the award follows. It is presented in the prescribed sections:

1. Recommendation from Dr. Mariano Savelski, Department Head of Chemical Engineering
2. What I Teach
3. My Students
4. Philosophy of Teaching, Learning, and Assessment
5. Personal Assessment of Teaching Effectiveness
6. Recent Peer Observations
7. Student Evaluations from Two Courses
8. Syllabi from Two Courses
9. Additional Materials
10. Biosketch

Thank you very much for your consideration of my application.

Sincerely,



Kevin D. Dahm

Professor of Chemical Engineering

February 1, 2019

Faculty Center for Excellence in Teaching and Learning
Rowan University
201 Mullica Hill Road
Glassboro, NJ 08028

Dear Award Committee:

I strongly support the presentation of the 2019 Lindback Distinguished Teaching Award to Dr. Kevin Dahm. I have known Kevin for almost twenty years as his colleague in the Chemical Engineering Department. Kevin is an excellent candidate for this award since he is one of the founding faculty members of the College of Engineering and has played a major role in the development of our unique and nationally recognized College of Engineering. I will summarize below what I believe are the accomplishments that make Dr. Dahm an excellent candidate for this honor.

Kevin Dahm has established himself as a master educator. This is evident from his peer assessment and his course and teacher evaluations. He has consistently received mean evaluation scores for the question, "Considering everything, how would you rate this teacher?" above 4.0 on a 5 point scale. He has received scores above 4.75 countless times, showing significant growth in excellence as an engineering teacher. Assessment of teaching is also quantified by the number of times, five, that Kevin has been voted the Outstanding Chemical Engineering Teacher by the senior class and twice he has been nominated to Rowan University Wall of Fame for advising and teaching.

It should be noted that the courses he has taught span all ranges of the curriculum. These include core engineering courses, such as Sophomore Clinic I & II, taught 13 times, a wide variety of Junior level Chemical Engineering courses, taught 16 times, and Senior "capstone" design courses taught 9 times. It should be pointed out that Kevin has brought significant innovation into these classes. These significant innovations have been disseminated to the broader community of engineering educators through recognized venues. Kevin is currently innovating the way thermodynamics is taught by integrating experiential and inductive learning activities. His use of realistic examples of abstract concepts to enhance student learning, is the foundation of the thermodynamics textbook he has recently published.

Kevin has been recently recognized by being named to the Rowan Wall of Fame for Advising and Teaching in 2011 and 2015. In addition to Kevin's normal duties of chemical student academic advising, he has provided significant mentorship to students in the Junior/Senior Clinic and the senior capstone Plant Design course. It is worth noting the significance of these activities, in 2010 one of his Plant Design teams won the Zeisberg Award from the Delaware Valley section of the American Institute of Chemical Engineers (AIChE) for the best design report. Four of his Junior/Senior clinic teams have received either 1st or 3rd place best paper awards at professional society conferences. In addition, and throughout his tenure, Kevin has been faculty advisor for the AIChE Student Chapter for 10 years. He has also served in that capacity for the Alpha Phi Omega service fraternity for 16 years. He has led the AIChE

Student Chapter to national recognition through mentoring students on the Chem-E Car Competition resulting in Northeast competition 1st place in 2003 and 2nd place in 2009. Kevin's excellent and dedicated service as faculty advisor for the student chapter is also - in part responsible- for the chapter's own accomplishments. Our chapter was recognized as an "Outstanding Chapter" by the AIChE nationals three years in a row, and it also was recognized by Rowan as the outstanding student organization on campus in 2016.

Kevin's excellence in teaching is quite significant since his body of work in engineering education can be appropriately categorized as educational pedagogy. Kevin has played a major role in educational grants. Currently, he is coordinating the assessment efforts of a NSF multi-institutional grant on integrating concepts and laboratory experiences in biometrics. He has served as the PI or co-PI on three NSF-CCLI grants related to development of metacognitive student teams, teaching engineering economics, and experiential approaches to reaction engineering. Most recently, Kevin has also secured funding as a co-PI from the NSF-DUE program, where he is in charge of developing and assessing pedagogical initiatives. Kevin has authored over 21 refereed journal publications in the area of teaching innovations/educational pedagogy. In 2014, Kevin also published an outstanding undergraduate thermodynamics textbook, which has been very well-received and widely adopted in the US and abroad. It should be noted that this book includes numerous innovative pedagogical approaches. This sets his book apart from the other widely used thermodynamics texts in the field. He has also been active in K-12 education, becoming a certified Let Me Learn® consultant and Project Lead the Way Affiliate Professor.

Kevin has also assumed a leadership role in several key areas of the engineering curriculum, impacting the College and Department. He has led efforts at the College level, in the Sophomore Engineering course by fostering enhanced integration of communications with design, and improving the structure of the design projects. It should be noted that these efforts led to the presentation and publication of numerous papers. He has been instrumental to the Department as its Assessment Coordinator and has shaped the assessment process that the Department currently uses for its courses and student outcomes. The student outcomes assessment process is part of our ABET accreditation process. His novel approaches to assessment have resulted in presentations and publications in peer-reviewed journals. His educational papers have resulted in numerous awards.

Kevin's external reputation can be assessed by the opinion of experts in the field and recognition through awards and invited activities. He has received five awards from the American Society for Engineering Education (ASEE). He won best paper awards three times for his papers on engineering education (2002 Professional Interest Council III, 2003 Chemical Engineering Division Joseph J. Martin Award, and the 2005 William H. Corcoran Award). As a junior faculty member, Kevin won the Ray W. Fahien Award from ASEE for outstanding teaching and pedagogical scholarship. This national award is given to chemical engineering faculty within their first 10 years of academic appointment. Kevin has continued to grow as a master educator. This is evident by his 2010 Outstanding Teaching Award from the Middle Atlantic Section of ASEE. I believe that the independent views of engineering experts on these award committees show how highly Kevin is regarded by his profession.

Leading international experts in the field of engineering education also cite Kevin's reputation for excellence in teaching. In particular, they cite these awards as evidence of external reputation for teaching excellence and educational scholarship. I will share two quotes

from the external evaluators who reviewed Kevin's application for promotion to Professor. Dr. Richard M. Felder, Hoechst Celanese Professor Emeritus at North Carolina State University, states that "I can think of very few in our field who have received such recognition, and most of them have many more years of experience behind them. His teaching awards also clearly indicate that he practices what he preaches in the literature." Dr. Douglas Ludlow, Professor and former Chair at Missouri University of Science & Technology, writes "… the Fahien and Martin awards demonstrate his impact on the chemical engineering community. The Corcoran and PIC III awards also attest to the positive impact of his written scholarship in the area of engineering education."

Kevin has been sought out as an invited speaker, presenting the paper "Chemical Plant Design: Scope, Organization and Evaluation of Semester Long Projects," for the AIChE national conference in 2010, and the panel session "Introducing Engineering Students to Engineering Design," at a National Academy of Engineering conference in 2012. In addition, he was selected in 2012 to give a national workshop on "Tools for Assessment of Engineering Students, Projects, Courses and Programs" for the 2012 ASEE Summer School for Chemical Engineering Faculty and most recently, in 2017, Kevin was selected to manage the entire program of workshops at the 2017 Summer School.

Kevin has also made a significant contribution to the engineering community on a global level. His service is a model of commitment and professionalism. At the Department level, Kevin coordinated the Chemical Engineering Department's accreditation assessment efforts for ten years and was the author of the department's self-study resulting in a highly successful accreditation in 2006 and 2018. He served as assistant accreditation coordinator for three years prior to that. In that capacity, he was instrumental in the implementation of an overhaul to the assessment program which resulted in a streamlined and more efficacious accreditation assessment process.

Kevin has served the College with distinction. He was a member of the College's Curriculum Committee for seven years and chaired the Committee for four years. He also served on the College of Engineering Computer Workgroup for nine years. In addition, Kevin's review courses for the Fundamentals of Engineering Examination were an asset to the College and to students in all departments. The review courses assist students with the first step toward a professional engineering license.

Kevin has engaged in diverse and significant University service. He has chaired the Senate Curriculum Committee for two years and he is currently chairing the Senate Recontracting and Tenure Committee for second year in a row. Kevin has also been a member of the Provost´s Task Force on the Statewide Transfer Agreement. This Taskforce reviewed every University program to assess its compliance with state law. He also chaired the Curriculum Subcommittee for General Education Proposals during the spring 2005 semester and was a member of the University Curriculum Committee for seven years.

Kevin's outreach activities are a credit to the University and the College of Engineering, and a benefit to STEM education. His participation in Project Lead the Way and Engineering Clinics for Teachers has resulted in integration of engineering principles in K-12 education. This type of collaboration with K-12 teachers benefits the College in terms of curricular development (especially for incoming freshmen), increasing students' interest in Rowan Engineering and in student preparation for engineering majors. He has served as instructor in the RISE program

since the summer of 2007. This program brings underrepresented potential students to Campus and is an important way to familiarize those students with engineering and technology.

In addition, Kevin has an excellent record of service and contributions to the Profession. He has served the Chemical Engineering Division of the American Society for Engineering Education (ASEE) with distinction as Director and Awards Chair. Dr. Dahm also served as Secretary/Treasurer, Newsletter Editor, Chair and Program Chair of the ASEE Engineering Economy Division. The fact that Division Directors and several positions in the Engineering Economy Division are elected is noteworthy and is a strong indicator of recognition among colleagues. Kevin had been Area Editor of the Engineering Economist for many years, and he is now an Associate Editor for Advances in Engineering Education.

In conclusion, Kevin has been a leader and an innovator in engineering education. He is eminently qualified for the 2019 Lindback Distinguished Teaching Award, and I strongly recommend the Award Committee granting him this well-deserved honor.

Sincerely,

Mariano Javier Savelski, Ph.D.
Professor and Department Head
Department of Chemical Engineering

2. What I Teach

Since joining Rowan University in 1999, I have taught primarily Chemical Engineering core courses, but also some engineering elective courses and interdisciplinary courses such as the Engineering Clinics. Here I discuss Chemical Engineering Thermodynamics (Thermo), which is the subject I have taught the most frequently, and Principles of Chemical Processes I (PCP I), which I have taught regularly since returning from sabbatical in 2012. (In the 17/18 academic year, I was on a significantly reduced teaching load due to service activities, and PCP I and Thermo II were the only two courses I taught.)

My department's approach to teaching Thermo underwent a significant change in 2005. Prior to Fall 2005 it was a single 3-credit class; during the 05/06 academic year we implemented a two-course sequence (Thermo I and Thermo II). I have taught thermodynamics many times under both models. I have also written (with one co-author) an undergraduate textbook on the subject, which was released in 2014 and has been adopted at over 20 chemical engineering programs in the US. There is also an "SI" edition that is marketed internationally, and the book has been translated into Korean.

Thermodynamics is notoriously a dreaded course in the curriculum for many students, as the core principles are very abstract. The course delves into the derivation and use of mathematical models that are applied throughout the discipline of chemical engineering. These models use, as integral components, the properties of pressure, temperature, volume, internal energy, enthalpy, and entropy. Because pressure, temperature, and volume can be measured and controlled, students have a good intuitive feel for these. However, there is no *direct* way to observe or measure the internal energy, enthalpy or entropy of a substance. Thus, the subject is inherently abstract- students can often feel like they are writing equations full of symbols that don't correspond to anything *real*. The primary goals of the course are to develop in students an ability to apply mathematical models to the solution of chemical engineering problems, and an ability to evaluate the appropriateness and accuracy of the models for the application at hand. However, the abstraction of the models themselves represents a major obstacle for many students.

I have had success making the subject seem less abstract by integrating hands-on demonstrations and experiential learning activities into the course. Several of these activities were developed through an NSF-funded project at Bucknell University. I implemented their activities into my course and provided assessment data, which helped validate these as effective learning activities. I have also made the course seem less abstract through an inductive approach in which new derivations and theory are introduced in the context of examples. We start with a problem that is recognizably a "real world" problem (e.g., if you need to change the temperature of this from 50 degrees to 200, how much heat do you need to add?) and start building a model that allows us to answer the question. At a certain point, we reach the limit of what we already know, and introduce the new concept or technique that is required to solve the problem. Then after the example is finished, we discuss the question "How much of what we just did is specific to this problem, and how much of it generalizes?" I have also adapted this classroom strategy into the textbook, opening each chapter with a "motivational example" and integrating inductive learning through realistic examples throughout the text. These motivational examples received excellent feedback from reviewers and are a major reason CENGAGE agreed to publish the book.

PCP I is the first course in the chemical engineering core curriculum. Thus, it is an exciting and rewarding course to teach because it is really the students' first introduction to chemical engineering as a discipline. As in Thermo, I combine inductive and deductive approaches and make extensive use of examples. The course has a number of technical learning objectives (material balances, equations of state, phase equilibrium) that are foundational in chemical engineering. I craft examples that introduce and reinforce these principles while also looking to make them recognizable as practical, and ask questions like "Why would a chemical engineer need to be able to do this?" Often our class discussions on these examples will raise questions that are beyond the scope of the introductory course. It is easy to answer "Well you're going to take a whole class on that when you're a junior," but I always try to go beyond that, exploring how that future course builds on and relies upon the things we are discussing in the introductory course.

In PCP I, Thermo I and Thermo II, course grades are based primarily on exams (specific grading schemes are described in the syllabi in Section 8). Regarding assessment and grading standards, the goals of the courses are to develop skills in applying models and evaluating the accuracy of the models in a broad variety of applications. Consequently, I write exams with a blend of calculations and conceptual questions. When I write grading rubrics and decide how to weight different aspects of the solutions, my goal is to gear them such that people who can only perform tasks at the lower levels of Bloom's taxonomy (Remember, Understand, Apply) but can do so effectively will earn something in the B- to C range, whereas to earn an A the student must also successfully perform tasks at the higher levels (Analyze, Evaluate, Create).

3. My Students

My first formal exposure to learning styles was at Richard Felder's 2-day education workshop, in the summer of 2000. Felder's learning style inventory characterizes student learning styles on four spectra: visual vs. verbal, global vs. sequential, active vs. reflective, and sensing vs. intuitive. Several years later, I went through the six-month training program to become a certified Let Me Learn® consultant. A major feature of the Let Me Learn process is the Learning Connections Inventory (LCI), which characterizes learners according to their preferences for four distinct learning patterns: sequential, precision, technical reasoning and confluence. Each learner is placed on a continuum between "use first", "use as needed" and "avoid" with respect to each pattern.

Both of these were transformative learning experiences for me. I learned about the diversity in how people think and learn, and about how to design classroom experiences that appeal to a variety of learners. For example, in solving problems I engage visual learners using graphs, sketches and diagrams, even when they are not strictly necessary for the solution. In addition, these two experiences showed me just how unusual I am compared to engineering students. By the Felder inventory, I am a verbal,

sequential, reflective and intuitive learner, but the visual, active and sensing attributes are all more common among engineering students.

The LCI reveals an even more striking difference. I use precision first, use sequence and confluence as needed, and avoid technical reasoning. I have seen LCI data for well over 1000 engineering students and most of them use technical reasoning first, which means they prefer hands-on activity. I am aware of fewer than 5 Rowan engineering students who share with me the avoidance of technical reasoning. Consequently, I spend much of my time devising learning activities that I, as a student, would likely have perceived as unnecessary, or only moderately helpful. The experiential learning activities I mentioned previously in the Thermodynamics course are good examples: as a student, I would have found a verbal description of the system or an explanation of the process to be just as helpful as actually seeing it or doing it myself. In addition, this "technical reasoning" learning pattern illustrates why I find the inductive approach I described in Section 2 to be very effective in presenting abstract material. While most students might not regard the derivation and solution of a system of equations as a "hands-on" activity per se, I can still engage the technical reasoning of the students by framing the activity in the context of a real-world question that they perceive as relevant and important. The kinds of "big picture" insights derived from these examples are also helpful for global learners.

Similarly, Sophomore Engineering Clinic is a two-course sequence that I taught regularly for many years prior to going on sabbatical. These courses emphasize engineering design and have incorporated many different design projects over the years. Some of the projects have involved building and testing of physical prototypes, while many have involved "paper" designs of a system or product that was too large in scope to be built by students in a lab. By my personal sensibilities, a "paper" design project is just as valuable and compelling as one that produces prototypes, but I recognize that my personal sensibilities are not typical of engineering students. Consequently, in 2004, I proposed and worked with the faculty team to develop an introductory project on bottle rockets for Sophomore Clinic I, so that the first project in the Sophomore Clinic experience is a hands-on project that involves

development of real prototypes and use of real data (collected by the students themselves) to inform design decisions. The bottle project has been used in Sophomore Clinic I ever since, though I personally stopped teaching the course years ago.

4. Philosophy of Teaching, Learning and Assessment

I strive to maintain an approach to teaching that is student-based and evidence-based, creating an environment in which all students can learn. Section 3 discussed some of the things I have learned about how people, and more specifically engineering students, best learn. Sections 2 also gave some examples of my student-based approaches to learning. To illustrate my commitment to evidence-based methods of instruction, I will highlight an example that was *not* a success.

In 2012, when I was teaching PCP I for the first time, the instructor of the other section and I introduced a new reflective writing assignment- the homework abstract. Students, after completing their homework, would write an abstract for each problem, describing the solution procedure. There were several benefits we expected the students to gain from this activity, such as seeing connections between concepts and developing a systematic problem-solving approach. In the Fall of 2013, we devised a control experiment and an assessment plan to test whether writing these abstracts led to improved achievement of the instructional objectives for the course. As it turned out, the "control" section uniformly out-performed the section that was writing homework abstracts, so we had to conclude there was no evidence the activity was beneficial to students, at least in this form. We ultimately both stopped using it. Nonetheless, it was an idea that had a solid grounding in the educational literature, it was well thought out and it was a reasonable thing to try. I fully intend to keep innovating and keep adopting good ideas in my classes, just as I intend to continue reflecting and assessing what is and is not working well.

My commitment to making decisions through collection and analysis of evidence was strongly reinforced during my first 10-year stint as my department's assessment coordinator. During this time, I had to develop efficient strategies for collecting data that demonstrate our graduates are meeting the

necessary student outcomes for accreditation of the program. I now have a lot of experience designing assessment instruments- tests, surveys, concept inventories, assessment rubrics, etc.- that tackle the fundamental question of how well students have achieved instructional objectives, and I use these in the continuous improvement of my courses. My commitment to evidence-based approaches has not only allowed me to improve my teaching, it has become a major feature of my scholarly activity. I have now published 23 educational papers in refereed journals, as listed in my CV (Section 9). In several of them, there are multiple co-authors and developing and carrying out the assessment plan was my personal role.

5. Personal Self-Assessment of Teaching Effectiveness

According to the instruments that are conventionally used for measuring teaching effectiveness, I am an effective teacher. My course and teacher evaluations are uniformly excellent as shown in Sections 7 and 9. My CV, also given in Section 9, lists the various campus, regional and national teaching awards I have earned. Over the years, I've continually participated in conferences and workshops with the goal of learning to be a better teacher:

- Attended every ASEE (American Society for Engineering Education) national conference since 2000, as well as several regional ASEE conferences
- Attended most AIChE (American Institute of Chemical Engineers) national conferences since 1994, present and participate regularly in sessions of the Education division of AIChE
- Attended Rich Felder's two-day teaching workshop held on campus in 2000
- Attended the Chemical Engineering Summer School in 2002 (this event is held once every 5 years) as a participant, delivered a workshop at the 2012 Summer School, and planned the program for the 2017 Summer School
- Became a certified Let Me Learn consultant in 2006
- Became a Project Lead the Way Affiliate Professor in 2007
- Served as an invited panelist at the 2012 Frontiers of Engineering Education conference

6. Recent Peer Observations

Below are two classroom observations, conducted by Dr. C. Stewart Slater (the Founding Chair of Chemical Engineering) and Dr. Mariano Savelski (currently Department Head of Chemical Engineering). I very much appreciate the time they put into observing my classes and the positive comments from both of these colleagues.

Dr. Slater's observation took place towards the end of the semester in PCP I. I would say that his comments are well aligned with my intent and approach to teaching as described in sections 2-5. He mentions that I "solicit input" from students and "make every attempt to involve students" in my classroom; these are important aspects of the active and open classroom environment I strive to maintain. He also details my use of multimedia in the solution of an example problem, in which I made use of a ternary phase diagram and also was continuously updating a schematic of the process as new information was calculated or uncovered. As I alluded to in Section 3, these approaches are intended to be particularly helpful to visual learners, which comprise a majority of engineering students (though I myself am a verbal learner). Finally, as I noted in Section 2, this class is the students' first introduction to chemical engineering as a discipline. One of my goals is to help students develop their engineering perspective, so that they are not only solving the specific examples I present to them, but also start to appreciate the motivations and the broader context behind why a chemical engineer would need to solve such problems. So I was pleased to see Dr. Slater indicate "He challenges students to critically think about ways to improve separation performance further beyond what was presented in class."

Dr. Savelski's observation took place early in the semester in Thermo II; it was our second double period of the semester, and the first of the series of computer labs. I spent about 10 minutes at the front of the room introducing the activity, and spent the rest of the period circulating and answering questions while the students worked on the lab. This is exactly the kind of active learning activity that we will be doing all semester during our double periods. Dr. Savelski says several positive things based upon what he saw during those first few minutes, regarding my speaking ability and my use of the multimedia

in the classroom. However, I am particularly grateful that Dr. Savelski took the time (as he discusses in the second to last paragraph of his letter) to circulate among the students and gauge their preparedness for the activity and their general understanding of non-ideal solutions. Non-ideal solutions had been the focus of the class up to this point (there were only three class meetings prior to this one) and he viewed their mastery of the concepts quite favorably at this early point in the semester. Dr. Savelski's praise for my students is particularly appreciated because he is himself a very accomplished teacher of thermodynamics. In fact, he had half of these students the previous semester in Thermo I. While Thermo I does not specifically cover solutions at all, I have found the students' general preparedness for my course is quite good and is a testament to the excellent colleagues I have throughout my department.

January 7, 2019

Re: Class Observation of Kevin Dahm

By: C. Stewart Slater, Professor and Founding Chair
Department of Chemical Engineering

The following peer evaluation was performed for Dr. Kevin Dahm on December 10, 2018 for the class, Principles of Chemical Processes I (Sophomore Year required class). The class was held at 3:30 PM, in Engineering Hall (Rowan Hall Extension) 107, and 21 students attended.

Dr. Dahm started class by reviewing a recent exam. The exam dealt with phase equilibria and covered principles such as Raoult's and Henry's law. He clearly reviews each problem, by writing an easy to follow process flow diagram representing the particular problem statement on the front white board and clearly labeling process stream variables. His writing is very clear (I could easily see it from the back row of the classroom). He carefully goes through the solutions to the problems and points out common mistakes made by the class. Throughout the review, Dr. Dahm solicits input from the class on various approaches to the solution of the problems. He reinforces key concepts, such as balancing mass and moles, and describes the importance of the concepts beyond just the exam problem.

Dr. Dahm has a clear speaking voice and emphasizes particular aspects of the lecture. He addresses the class by looking at them, while completing work on the white board. His tone is very conducive to learning and he emphasizes important terms for students to follow. He treats all students in a very professional manner and makes every attempt to involve students from all sections of the classroom.

Dr. Dahm moves into his lecture for this afternoon on liquid-liquid equilibrium, which is continuation of the last class. He uses a computer to project lecture material on the side boards for a ternary phase diagram representing a partially miscible system. He effectively uses the standard white board in the center of the classroom – while projecting the triangular diagram on the side electronic smart board. He uses color to show both computer triangular graph and overlays with a particular component composition. He then co-currently uses a Powerpoint slide presentation with an example problem statement. Dr. Dahm asks the class to draw a representative system and label it. He then puts the information on the front white board – showing a blank process flow diagram with only input compositions. He shows the two input streams being mixed and the two exit streams produced by the separation.

Throughout the problem Dr Dahm actively engages the class in the solution, by asking questions, getting input, and using this method to discuss solution strategies to liquid-liquid

Department of Chemical Engineering

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extraction problems. This approach greatly enhancing the learning environment. He uses humor during the lecture, and keeps student attention throughout the period – difficult to do at 4:00 PM in the afternoon, especially in the winter, when the sun is setting.

One of the unique aspects of the lecture is how Dr. Dahm engages the students in learning the concepts. He keeps the process diagram on the first board, while using multimedia to display statements/solutions on the side boards. He does this in a step-by-step method to allow students to participate in the learning activity. At each stage, he adds components of the problem solution (to either a diagram or solution sequence), and asks students for input into what the consequence would be, and then adds the next part of the solution. He then relates this back to the overall process diagram on the front board. This keeps students engaged in the learning process.

During the class period, Dr. Dahm actively involves the students in cooperative learning by having them solve problems in class, while he walks around the room seeing how they are doing and answering questions. He uses these examples to demonstrate how to more effectively separate process components using liquid-liquid extraction. He challenges students to critically think about ways to improve separation performance further beyond what was presented in class.

It is clear that Dr. Dahm is an accomplished lecturer and has a mastery of the material he presents and the active learning educational methods he employs.

Department of Chemical Engineering

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Rowan University

February 8, 2019

Re: Class Observation of Kevin Dahm

By: Mariano J. Savelski, Professor
Department of Chemical Engineering

The following peer evaluation was performed for Dr. Kevin Dahm on Monday, February 4, 2019, of the class Chemical Engineering Thermodynamics II, CHE06.315.02. The class was held at 12:30 PM in Engineering Hall room 107.

Dr. Dahm started class by explaining the active learning activities planned for that day. He reminded students of the homework that was due that day and then collected it. The activities planned for that doubled period class were to solve a series of computer-based modeling exercises using Excel.

The purpose of the class exercises was to strengthen students' understanding of non-ideal binary mixtures behavior. Kevin opened the discussion by reminding the class the characteristic of homogenous systems that present significant deviations from ideality. He proposed a binary system of chloroform and methanol and asked the class why the system would not behave ideally. Most students knew the answer to the question. To reinforce the concept and to expand on students' answers, Kevin explained the behavior expected in mixtures where molecules are very different in nature, shape, and polarity. Students were attentive and engaged at all times.

Dr. Dahm used the front smart boards to project data of the proposed binary system. The presented data of excess enthalpy as a function of one of the components mole fraction was to be used to determine a series of properties of this highly non-ideal mixture. Students had access to the activity sheet via blackboard and within minutes all students had their laptop and Excel ready to start working on the modeling of the system. Dr. Dahm reminded students that they could work in pairs if so desired; however, I observed that almost all of the students engaged in independent work and then compared their findings.

I took some time to walk around and observed the level of understanding of the data provided and noticed that students knew perfectly well how to proceed with the tasks proposed by the exercise. This last point is worth noting because it shows the comprehension the students possessed of this difficult thermodynamics topic. This high level of understanding correlates with the excellent job Dr. Dahm does in teaching difficult concepts and reaching out to all type of different learning styles. I have taught the same class several times before, and I can attest how difficult it is to convey certain concepts related to multicomponent equilibria. It is obvious to me that Dr. Dahm does this with amazing skill and success.

Dr. Dahm has excellent communication skills in the classroom. He can effectively use the whiteboards and electronic media to present lecture material. His writing is clear and legible, and he provides sufficient time for the students to copy the notes. His speaking ability in presenting material is excellent and uses voice inflection to emphasize particular points of the lecture.

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7. Student Evaluations from PCP I and Thermo II

The award application calls for student evaluations for two classes within the past three years. I have somewhat limited data from this time period. Prior to my promotion to Professor, my department always conducted course and teacher evaluations for me during class time, in order to ensure a high response rate. Since my promotion in 2013, I did not foresee needing course and teacher evaluation data for any purpose other than continuous improvement of my courses. Consequently, I stopped conducting them during class time. I request a student evaluation of each course through BANNER and tell the students that it is available for any feedback they wish to give, but I put no particular effort into getting a high response rate. Consequently, I have included my student evaluations for the last two offerings of each of the two courses, PCP I and Thermo II, which were also the focus of Section 2. There are 27 total respondents from these four sections.

I had 22 students in my Spring 2017 Thermo II class and 31 students in Spring 2018, but only 6 and 2 students, respectively, from these sections completed the course evaluation. The feedback I did receive is excellent. On the Likert-style questions, I received mostly 5's and no rating below 4 out of 5 from any student on any question (overall mean of 4.93 in 2017 and 4.96 in 2018). The written comments, too, are very positive. One thing students always appreciate is prompt feedback on exams and homework. I have always prioritized grading and returning submitted work as quickly as possible, and the students note this, with comments like "…always very quick!!!! Thank you!", and "Fast and useful feedback was always given on blackboard for all assignments and exams." I mentioned in Section 2 how I constantly use realistic examples in my teaching as a strategy for making the abstract content feel practical and less abstract. In Thermo II, the computer labs are a major aspect of this approach and I was pleased that to see that some students commented favorably on these, one saying "Dahm's weekly labs provided an opportunity for students to learn how to apply the models and concepts learned in class to actual problems." When asked to tell a future student about the course, students offered summaries such as

“Coming into the course, I felt very concerned about my previous knowledge in thermodynamics because I did not get the best grade in thermo 1. Not only did Dahm make me feel comfortable with Thermo 2, he filled in some of the gaps I had in my Thermo 1 knowledge” and “Best course ever. You learn so much, and it is never stressful” and “the greatest thing about Dr. Dahm is that he knows what you’re thinking before you even think it… knows where students commonly get confused and clears up any questions or uncertainty that you have before you get too confused in your own head.”

The grade distribution for these sections is given here:

	Spring 2017 Thermo II	Spring 2018 Thermo II
A	7	9
A-	3	4
B+	2	7
B	4	6
B-	5	3
C+	0	0
C	0	1
C-	0	1
D+	1	0
D	0	0
D-	0	0
F	0	0

In PCP I, I had 28 students in Fall 2017 and 27 in Fall 2018. Of these, 10 returned a teacher evaluation in 2017 and 9 in 2018. Here again, the responses were excellent. I received predominantly ratings of 5 and occasionally 4 on all questions (overall mean 4.92 in 2017 and 4.98 in 2018). The only outliers were a couple of students in 2017 who responded 3 and 1 to the question “The instructor was open to student feedback about the course and instructional methods.” Unfortunately, these students did not provide text

responses for this question so I am not sure what their specific concerns were. The written responses that I did receive were very complimentary. As one example, I put a lot of effort into developing a rapport with students and conducting class in a relaxed and productive environment as possible, so I am very pleased when I see comments like “We had a fun relationship with Professor Dahm, but it never felt unprofessional” and “Dr. Dahm is very willing to help with any issues you may face, and is definitely NOT unapproachable.” Students appreciate that I am accessible and well-prepared for class and that I give quick and useful feedback. Some students also commented favorably on my use of examples and diagrams, which I discussed at some length in sections 2-5.

The grade distribution for these sections is given here:

	Fall 2017 PCP I	Fall 2018 PCP I
A	10	11
A-	3	1
B+	2	2
B	4	4
B-	3	3
C+	3	3
C	0	0
C-	2	1
D+	0	0
D	0	0
D-	0	0
F	0	0
W	1	1

Rowan University

Student Evaluation of Teaching Effectiveness Report

Dahm, Kevin D.
Spring 2017
CHE 06.315.2
CHEM ENG THERMODYNAM II

ROWAN UNIVERSITY
STUDENT EVALUATION OF TEACHING EFFECTIVENESS REPORT

CHE 06.315.2 (Dahm, Kevin D.) CHEM ENG THERMODYNAM II
Evaluation Administered: Spring 2017 (201720)
Number of students enrolled: 22
Number of evaluations completed: 6
Comparative overall statistics:

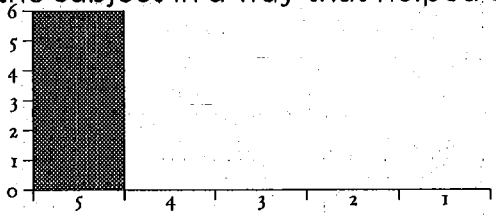
THIS EVALUATION:	RESPONSES:	72	MEAN:	4.93	MEDIAN:	5	STDEV:	0.254
DEPARTMENT-WIDE:	DATA SAMPLE TOO SMALL							
COLLEGE-WIDE:	RESPONSES:	15,260	MEAN:	4.27	MEDIAN:	5	STDEV:	0.976
UNIVERSITY-WIDE:	RESPONSES:	161,102	MEAN:	4.47	MEDIAN:	5	STDEV:	0.864

STATISTICAL PRESENTATION OF EVALUATION RESULTS

Question 1: The instructor taught the subject in a way that helped students learn.

RESPONSES: 6 MEAN: 5.00

5	Always	6
4	Very often	0
3	Sometimes	0
2	Rarely	0
1	Not Observed	0

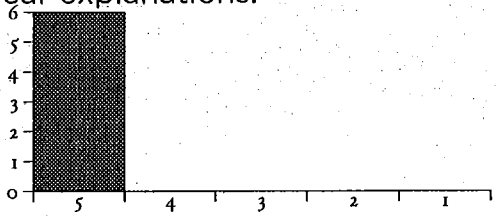


DEPARTMENT-WIDE STATISTICS:	DATA SAMPLE TOO SMALL						
COLLEGE-WIDE STATISTICS:	RESPONSES:	1,285	MEAN:	4.14	MEDIAN:	4	STDEV:	1.007
UNIVERSITY-WIDE STATISTICS:	RESPONSES:	13,522	MEAN:	4.39	MEDIAN:	5	STDEV:	0.877

Question 2: The instructor gave clear explanations.

RESPONSES: 6 MEAN: 5.00

5	Always	6
4	Very often	0
3	Sometimes	0
2	Rarely	0
1	Not Observed	0

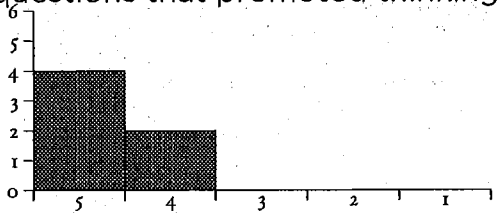


DEPARTMENT-WIDE STATISTICS:	DATA SAMPLE TOO SMALL						
COLLEGE-WIDE STATISTICS:	RESPONSES:	1,277	MEAN:	4.09	MEDIAN:	4	STDEV:	0.986
UNIVERSITY-WIDE STATISTICS:	RESPONSES:	13,480	MEAN:	4.36	MEDIAN:	5	STDEV:	0.865

Question 3: The instructor asked questions that promoted thinking.

RESPONSES: 6 MEAN: 4.67

5	Always	4
4	Very often	2
3	Sometimes	0
2	Rarely	0
1	Not Observed	0

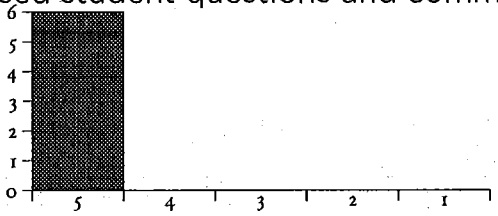


DEPARTMENT-WIDE STATISTICS:	DATA SAMPLE TOO SMALL						
COLLEGE-WIDE STATISTICS:	RESPONSES:	1,272	MEAN:	4.13	MEDIAN:	4	STDEV:	0.958
UNIVERSITY-WIDE STATISTICS:	RESPONSES:	13,454	MEAN:	4.37	MEDIAN:	5	STDEV:	0.883

Question 4: The instructor addressed student questions and comments.

RESPONSES: 6 MEAN: 5.00

5	Always	6
4	Very often	0
3	Sometimes	0
2	Rarely	0
1	Not Observed	0



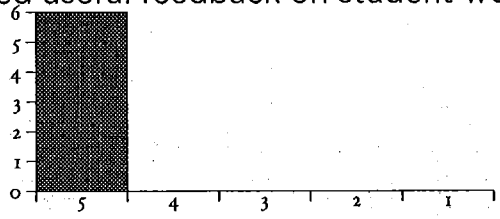
DEPARTMENT-WIDE STATISTICS: DATA SAMPLE TOO SMALL

COLLEGE-WIDE STATISTICS:	RESPONSES:	1,267	MEAN:	4.50	MEDIAN:	5	STDEV:	0.821
UNIVERSITY-WIDE STATISTICS:	RESPONSES:	13,430	MEAN:	4.63	MEDIAN:	5	STDEV:	0.717

Question 5: The instructor provided useful feedback on student work.

RESPONSES: 6 MEAN: 5.00

5	Always	6
4	Very often	0
3	Sometimes	0
2	Rarely	0
1	Not Observed	0



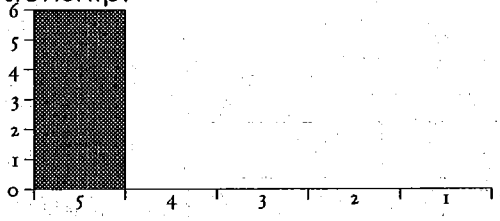
DEPARTMENT-WIDE STATISTICS: DATA SAMPLE TOO SMALL

COLLEGE-WIDE STATISTICS:	RESPONSES:	1,273	MEAN:	4.06	MEDIAN:	4	STDEV:	1.075
UNIVERSITY-WIDE STATISTICS:	RESPONSES:	13,429	MEAN:	4.33	MEDIAN:	5	STDEV:	0.968

Question 6: The instructor treated students with fairness and respect appropriate for a professional relationship.

RESPONSES: 6 MEAN: 5.00

5	Always	6
4	Very often	0
3	Sometimes	0
2	Rarely	0
1	Not Observed	0



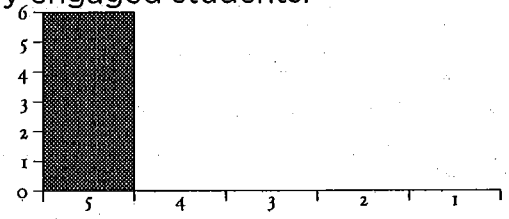
DEPARTMENT-WIDE STATISTICS: DATA SAMPLE TOO SMALL

COLLEGE-WIDE STATISTICS:	RESPONSES:	1,276	MEAN:	4.69	MEDIAN:	5	STDEV:	0.678
UNIVERSITY-WIDE STATISTICS:	RESPONSES:	13,439	MEAN:	4.73	MEDIAN:	5	STDEV:	0.632

Question 7: The instructor actively engaged students.

RESPONSES: 6 MEAN: 5.00

5	Always	6
4	Very often	0
3	Sometimes	0
2	Rarely	0
1	Not Observed	0



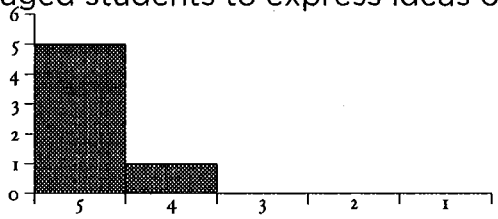
DEPARTMENT-WIDE STATISTICS: DATA SAMPLE TOO SMALL

COLLEGE-WIDE STATISTICS:	RESPONSES:	1,272	MEAN:	4.19	MEDIAN:	4	STDEV:	0.973
UNIVERSITY-WIDE STATISTICS:	RESPONSES:	13,413	MEAN:	4.45	MEDIAN:	5	STDEV:	0.848

Question 8: The instructor encouraged students to express ideas or opinions.

RESPONSES: 6 MEAN: 4.83

5	Always	5
4	Very often	1
3	Sometimes	0
2	Rarely	0
1	Not Observed	0



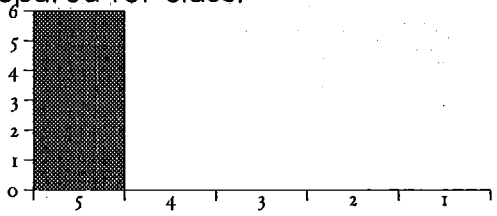
DEPARTMENT-WIDE STATISTICS: DATA SAMPLE TOO SMALL

COLLEGE-WIDE STATISTICS:	RESPONSES:	1,273	MEAN:	4.24	MEDIAN:	5	STDEV:	0.976
UNIVERSITY-WIDE STATISTICS:	RESPONSES:	13,413	MEAN:	4.47	MEDIAN:	5	STDEV:	0.859

Question 9: The instructor was prepared for class.

RESPONSES: 6 MEAN: 5.00

5	Always	6
4	Very often	0
3	Sometimes	0
2	Rarely	0
1	Not Observed	0



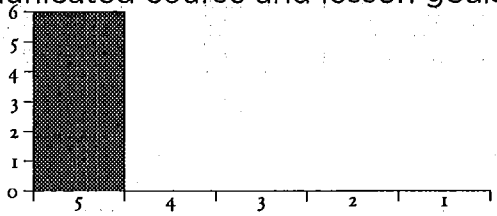
DEPARTMENT-WIDE STATISTICS: DATA SAMPLE TOO SMALL

COLLEGE-WIDE STATISTICS:	RESPONSES:	1,271	MEAN:	4.52	MEDIAN:	5	STDEV:	0.850
UNIVERSITY-WIDE STATISTICS:	RESPONSES:	13,412	MEAN:	4.71	MEDIAN:	5	STDEV:	0.635

Question 10: The instructor communicated course and lesson goals.

RESPONSES: 6 MEAN: 5.00

5	Always	6
4	Very often	0
3	Sometimes	0
2	Rarely	0
1	Not Observed	0



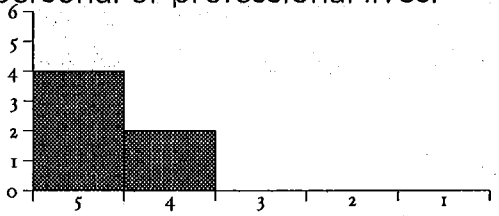
DEPARTMENT-WIDE STATISTICS: DATA SAMPLE TOO SMALL

COLLEGE-WIDE STATISTICS:	RESPONSES:	1,265	MEAN:	4.35	MEDIAN:	5	STDEV:	0.920
UNIVERSITY-WIDE STATISTICS:	RESPONSES:	13,391	MEAN:	4.53	MEDIAN:	5	STDEV:	0.791

Question 11: The instructor taught class in a way that helped students make connections to their personal or professional lives.

RESPONSES: 6 MEAN: 4.67

5	Always	4
4	Very often	2
3	Sometimes	0
2	Rarely	0
1	Not Observed	0



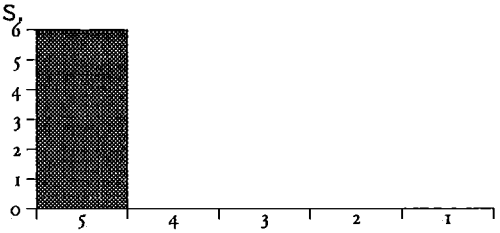
DEPARTMENT-WIDE STATISTICS: DATA SAMPLE TOO SMALL

COLLEGE-WIDE STATISTICS:	RESPONSES:	1,267	MEAN:	4.07	MEDIAN:	4	STDEV:	1.087
UNIVERSITY-WIDE STATISTICS:	RESPONSES:	13,363	MEAN:	4.29	MEDIAN:	5	STDEV:	0.996

Question 12: The instructor was open to student feedback about the course and instructional methods.

RESPONSES: 6 MEAN: 5.00

5	Always	6
4	Very often	0
3	Sometimes	0
2	Rarely	0
1	Not Observed	0



DEPARTMENT-WIDE STATISTICS: DATA SAMPLE TOO SMALL

COLLEGE-WIDE STATISTICS:	RESPONSES:	1,262	MEAN:	4.26	MEDIAN:	5	STDEV:	1.065
UNIVERSITY-WIDE STATISTICS:	RESPONSES:	13,356	MEAN:	4.35	MEDIAN:	5	STDEV:	1.042

Question 13: Tell a future student about this instructor and course.
See **EVALUATION COMMENTS** below

EVALUATION COMMENTS

Only questions for which comments were provided appear below.

Question 1: The instructor taught the subject in a way that helped students learn.

1. Dr. Dahm was an exceptionally clear instructor and there was rarely a moment in which I was lost on what to do to solve a problem.
2. Best teacher in the ChE department.

Question 2: The instructor gave clear explanations.

1. Dr. Dahm was always exceptionally clear in his course instruction and what would and wouldn't be covered on exams.
2. This man wrote the textbook.

Question 3: The instructor asked questions that promoted thinking.

1. Dr. Dahm was exceedingly clear in his instruction, preemptively clarifying any misconceptions I might have had about the content before I even had a chance to ask them as well as asking hypotheticals which challenged my knowledge of the course content.
2. Homework was helpful and promoted critical thinking.

Question 4: The instructor addressed student questions and comments.

1. Could always ask questions without fear. Encouraged us to ask questions we had on the material.
2. Always was open for questions and suggestions

Question 5: The instructor provided useful feedback on student work.

1. Dr. Dahm always went over homework and exam solutions as well as had an open door policy to ask questions about any of the class content.
2. Always gave clear feedback to homework submissions and tests.
3. Fast and useful feedback was always given on blackboard for all assignments and exams

Question 7: The instructor actively engaged students.

1. We had classes devoted to labs to do that always kept us busy.
2. Dahm's weekly labs provided an opportunity for students to learn how to apply the models and concepts learned in class to actual problems.

Question 13: Tell a future student about this instructor and course.

1. This course was my number one favorite class being a Chemical Engineer at Rowan University. Dr. Dahm is by far the best professor in the chemical engineering department. I have never learned so much material, and have felt this prepared for a class in my life. He clearly explained every lesson. But the greatest thing about Dr. Dahm is that he knows what you're thinking before you even think it. What I mean by this is that when a professor teaches, there are several scenarios during each lecture where the student becomes confused with a concept. Dr. Dahm knows where students commonly get confused and clears up any questions or uncertainty that you have before you get too confused in your own head. I was never lost for one minute in any of his lectures, and this is why I thought he was such a good professor. If you are confused at any point, he will make sure to clear up any of your confusion immediately. And the BEST part is that when you ask him a question, he actually answers the exact question that you asked and he doesn't go off on a confusing and pointless explanation! All too often when you ask other professors a question, they either do not know how to answer your question or they try to answer and only confuse you more. Dr. Dahm answers your questions and leaves you with a complete explanation. I wish that he taught every chemical engineering class.
2. I highly recommend taking Dr. Dahm for any class that you can. He is very knowledgable and helpful always. Definitely helped me understand Thermodynamics much better than any other teacher.
3. Dr. Dahm is an excellent instructor for Thermodynamics II. Although it is very likely that you had difficulty with the content covered in Thermodynamics I, Dahm is able to clear up any of the misconceptions that you may have had, while teaching new content related to system modeling effortlessly and without skipping a beat.
4. Coming into this course, I felt very concerned about my previous knowledge in thermodynamics because I did not get the best grade in Thermo 1. Not only did Dahm make me feel comfortable with Thermo 2, he filled in some of the gaps I had in my Thermo 1 knowledge. I do not exaggerate when I say that Dr. Dahm is one of the best professors I've ever had at Rowan University.
5. Dr. Dahm is one of the best if not the best Chemical Engineering faculty member we have here at Rowan. He is very intelligent, focused on making sure everyone understands the material. He is very nice and approachable making it easy to communicate questions.
6. He makes difficult subjects easy to understand. 10/10 would take again.

Rowan University

Student Evaluation of Teaching Effectiveness Report

Dahm, Kevin D.
Spring 2018
CHE 06.315.2
CHEM ENG THERMODYNAM II

ROWAN UNIVERSITY
STUDENT EVALUATION OF TEACHING EFFECTIVENESS REPORT

CHE 06.315.2 (Dahm, Kevin D.) CHEM ENG THERMODYNAM II
Evaluation Administered: Spring 2018 (201820)
Number of students enrolled: 31
Number of evaluations completed: 2
Comparative overall statistics:

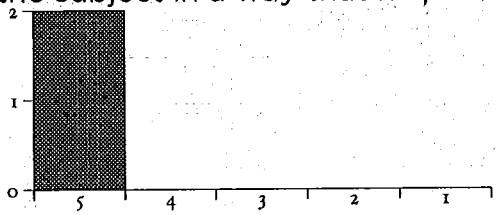
This evaluation:	Responses:	24	Mean:	4.96	Median:	5	StDev:	0.200
Department-wide:	Data Sample Too Small							
College-wide:	Responses:	16,504	Mean:	4.30	Median:	5	StDev:	0.908
University-wide:	Responses:	161,170	Mean:	4.52	Median:	5	StDev:	0.828

STATISTICAL PRESENTATION OF EVALUATION RESULTS

Question 1: The instructor taught the subject in a way that helped students learn.

Responses: 2 Mean: 5.00

5	Always	2
4	Very often	0
3	Sometimes	0
2	Rarely	0
1	Not Observed	0

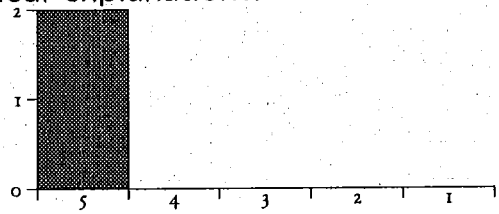


Department-wide statistics:	Data Sample Too Small						
College-wide statistics:	Responses:	1,385	Mean:	4.19	Median:	4	StDev:	0.932
University-wide statistics:	Responses:	13,537	Mean:	4.45	Median:	5	StDev:	0.827

Question 2: The instructor gave clear explanations.

Responses: 2 Mean: 5.00

5	Always	2
4	Very often	0
3	Sometimes	0
2	Rarely	0
1	Not Observed	0

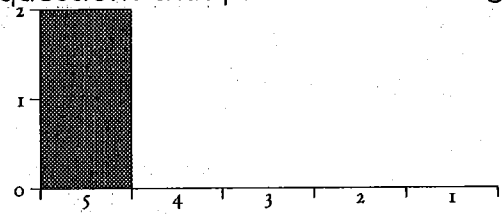


Department-wide statistics:	Data Sample Too Small						
College-wide statistics:	Responses:	1,379	Mean:	4.14	Median:	4	StDev:	0.915
University-wide statistics:	Responses:	13,495	Mean:	4.40	Median:	5	StDev:	0.838

Question 3: The instructor asked questions that promoted thinking.

Responses: 2 Mean: 5.00

5	Always	2
4	Very often	0
3	Sometimes	0
2	Rarely	0
1	Not Observed	0

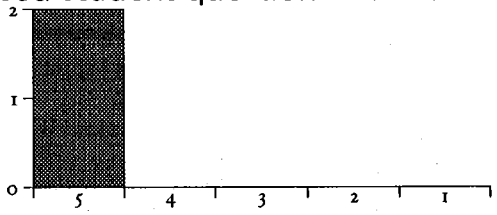


Department-wide statistics:	Data Sample Too Small						
College-wide statistics:	Responses:	1,380	Mean:	4.15	Median:	4	StDev:	0.900
University-wide statistics:	Responses:	13,457	Mean:	4.42	Median:	5	StDev:	0.848

Question 4: The instructor addressed student questions and comments.

RESPONSES: 2 MEAN: 5.00

5	Always	2
4	Very often	0
3	Sometimes	0
2	Rarely	0
1	Not Observed	0



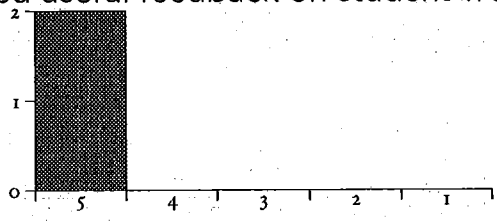
DEPARTMENT-WIDE STATISTICS: DATA SAMPLE TOO SMALL

COLLEGE-WIDE STATISTICS:	RESPONSES:	1,377	MEAN:	4.53	MEDIAN:	5	STDEV:	0.746
UNIVERSITY-WIDE STATISTICS:	RESPONSES:	13,448	MEAN:	4.66	MEDIAN:	5	STDEV:	0.689

Question 5: The instructor provided useful feedback on student work.

RESPONSES: 2 MEAN: 5.00

5	Always	2
4	Very often	0
3	Sometimes	0
2	Rarely	0
1	Not Observed	0



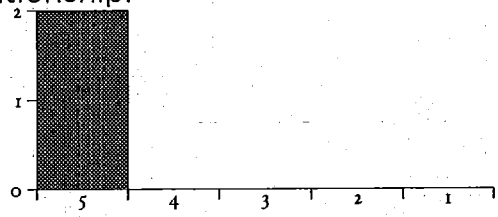
DEPARTMENT-WIDE STATISTICS: DATA SAMPLE TOO SMALL

COLLEGE-WIDE STATISTICS:	RESPONSES:	1,374	MEAN:	4.03	MEDIAN:	4	STDEV:	1.066
UNIVERSITY-WIDE STATISTICS:	RESPONSES:	13,438	MEAN:	4.38	MEDIAN:	5	STDEV:	0.937

Question 6: The instructor treated students with fairness and respect appropriate for a professional relationship.

RESPONSES: 2 MEAN: 5.00

5	Always	2
4	Very often	0
3	Sometimes	0
2	Rarely	0
1	Not Observed	0



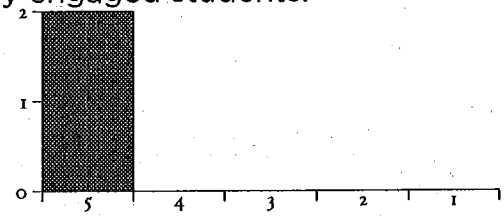
DEPARTMENT-WIDE STATISTICS: DATA SAMPLE TOO SMALL

COLLEGE-WIDE STATISTICS:	RESPONSES:	1,379	MEAN:	4.70	MEDIAN:	5	STDEV:	0.638
UNIVERSITY-WIDE STATISTICS:	RESPONSES:	13,435	MEAN:	4.76	MEDIAN:	5	STDEV:	0.602

Question 7: The instructor actively engaged students.

RESPONSES: 2 MEAN: 5.00

5	Always	2
4	Very often	0
3	Sometimes	0
2	Rarely	0
1	Not Observed	0



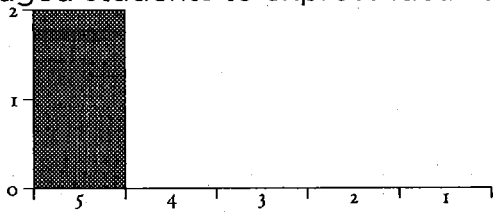
DEPARTMENT-WIDE STATISTICS: DATA SAMPLE TOO SMALL

COLLEGE-WIDE STATISTICS:	RESPONSES:	1,376	MEAN:	4.25	MEDIAN:	4	STDEV:	0.892
UNIVERSITY-WIDE STATISTICS:	RESPONSES:	13,424	MEAN:	4.51	MEDIAN:	5	STDEV:	0.803

Question 8: The instructor encouraged students to express ideas or opinions.

RESPONSES: 2 MEAN: 5.00

5	Always	2
4	Very often	0
3	Sometimes	0
2	Rarely	0
1	Not Observed	0



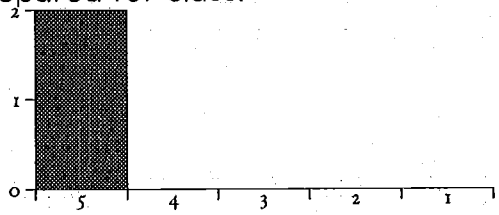
DEPARTMENT-WIDE STATISTICS: DATA SAMPLE TOO SMALL

COLLEGE-WIDE STATISTICS:	RESPONSES:	1,376	MEAN:	4.28	MEDIAN:	5	STDEV:	0.880
UNIVERSITY-WIDE STATISTICS:	RESPONSES:	13,407	MEAN:	4.52	MEDIAN:	5	STDEV:	0.825

Question 9: The instructor was prepared for class.

RESPONSES: 2 MEAN: 5.00

5	Always	2
4	Very often	0
3	Sometimes	0
2	Rarely	0
1	Not Observed	0



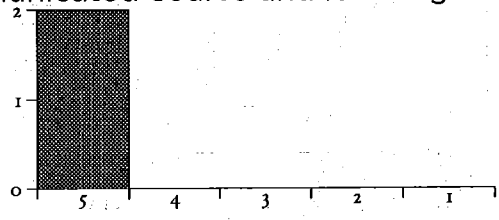
DEPARTMENT-WIDE STATISTICS: DATA SAMPLE TOO SMALL

COLLEGE-WIDE STATISTICS:	RESPONSES:	1,373	MEAN:	4.58	MEDIAN:	5	STDEV:	0.730
UNIVERSITY-WIDE STATISTICS:	RESPONSES:	13,413	MEAN:	4.74	MEDIAN:	5	STDEV:	0.593

Question 10: The instructor communicated course and lesson goals.

RESPONSES: 2 MEAN: 5.00

5	Always	2
4	Very often	0
3	Sometimes	0
2	Rarely	0
1	Not Observed	0



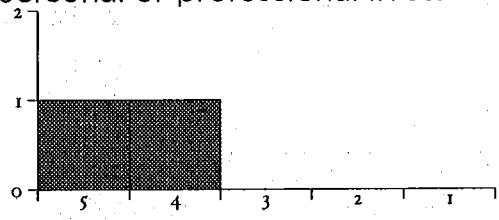
DEPARTMENT-WIDE STATISTICS: DATA SAMPLE TOO SMALL

COLLEGE-WIDE STATISTICS:	RESPONSES:	1,370	MEAN:	4.40	MEDIAN:	5	STDEV:	0.852
UNIVERSITY-WIDE STATISTICS:	RESPONSES:	13,390	MEAN:	4.58	MEDIAN:	5	STDEV:	0.752

Question 11: The instructor taught class in a way that helped students make connections to their personal or professional lives.

RESPONSES: 2 MEAN: 4.50

5	Always	1
4	Very often	1
3	Sometimes	0
2	Rarely	0
1	Not Observed	0



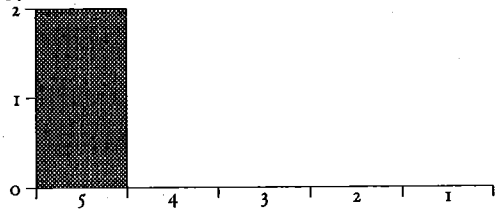
DEPARTMENT-WIDE STATISTICS: DATA SAMPLE TOO SMALL

COLLEGE-WIDE STATISTICS:	RESPONSES:	1,369	MEAN:	4.14	MEDIAN:	4	STDEV:	0.990
UNIVERSITY-WIDE STATISTICS:	RESPONSES:	13,368	MEAN:	4.36	MEDIAN:	5	STDEV:	0.957

Question 12: The instructor was open to student feedback about the course and instructional methods.

RESPONSES: 2 MEAN: 5.00

5	Always	2
4	Very often	0
3	Sometimes	0
2	Rarely	0
1	Not Observed	0



DEPARTMENT-WIDE STATISTICS: DATA SAMPLE TOO SMALL

COLLEGE-WIDE STATISTICS:	RESPONSES:	1,366	MEAN:	4.25	MEDIAN:	5	STDEV:	1.007
UNIVERSITY-WIDE STATISTICS:	RESPONSES:	13,358	MEAN:	4.40	MEDIAN:	5	STDEV:	1.017

Question 13: Tell a future student about this instructor and course.
See **EVALUATION COMMENTS** below

EVALUATION COMMENTS

Only questions for which comments were provided appear below.

Question 4: The instructor addressed student questions and comments.

1. Very timely with e-mails as well!

Question 5: The instructor provided useful feedback on student work.

1. And always very quick!!!! Thank you!

Question 7: The instructor actively engaged students.

1. And the examples, like the little ethanol molecules in the water molecules, those are cool.
2. Good balance of HW/lessons and time to ask questions.

Question 10: The instructor communicated course and lesson goals.

1. There was always a plan, we knew what we were doing next class so we didnâ t have to blindly walk in. Also, thanks for the reminder emails, those are really helpful.

Question 13: Tell a future student about this instructor and course.

1. Would recommend Dr. Dahm for any course! He is very helpful if you don't understand the material. This is the only course I don't mind waking up and going to an 8 am for.
2. Best course ever. You learn so much, and itâ s never stressful. You can always plan ahead for this class, because things are due at the same time every week and Dr. Dahm just is really personable, so everything is always great. He should just teach everything. 10/10 would recommend.

Rowan University

Student Evaluation of Teaching Effectiveness Report

Dahm, Kevin D.
Fall 2017
CHE 06.201.2
PRIN CHEM PROCES I

ROWAN UNIVERSITY
STUDENT EVALUATION OF TEACHING EFFECTIVENESS REPORT

CHE 06.201.2 (Dahm, Kevin D.) PRIN CHEM PROCES I
Evaluation Administered: Fall 2017 (201740)
Number of students enrolled: 27
Number of evaluations completed: 10
Comparative overall statistics:

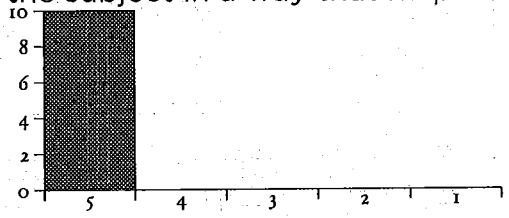
This evaluation:	Responses:	120	Mean:	4.92	Median:	5	StDev: 0.439
Department-wide:	Data Sample Too Small						
College-wide:	Responses:	23,201	Mean:	4.29	Median:	5	StDev: 0.918
University-wide:	Responses:	193,042	Mean:	4.45	Median:	5	StDev: 0.875

STATISTICAL PRESENTATION OF EVALUATION RESULTS

Question 1: The instructor taught the subject in a way that helped students learn.

Responses: 10 Mean: 5.00

5	Always	10
4	Very often	0
3	Sometimes	0
2	Rarely	0
1	Not Observed	0

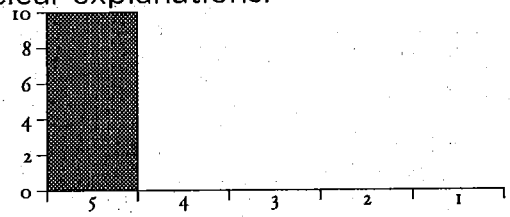


Department-wide statistics:	Data Sample Too Small						
College-wide statistics:	Responses:	1,947	Mean:	4.19	Median:	4	StDev: 0.913
University-wide statistics:	Responses:	16,191	Mean:	4.37	Median:	5	StDev: 0.878

Question 2: The instructor gave clear explanations.

Responses: 10 Mean: 5.00

5	Always	10
4	Very often	0
3	Sometimes	0
2	Rarely	0
1	Not Observed	0

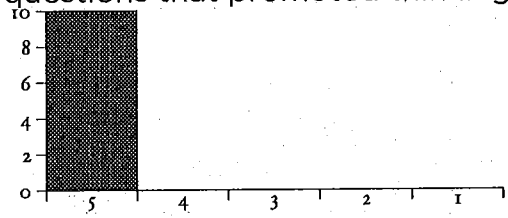


Department-wide statistics:	Data Sample Too Small						
College-wide statistics:	Responses:	1,939	Mean:	4.11	Median:	4	StDev: 0.903
University-wide statistics:	Responses:	16,154	Mean:	4.32	Median:	5	StDev: 0.876

Question 3: The instructor asked questions that promoted thinking.

Responses: 10 Mean: 5.00

5	Always	10
4	Very often	0
3	Sometimes	0
2	Rarely	0
1	Not Observed	0

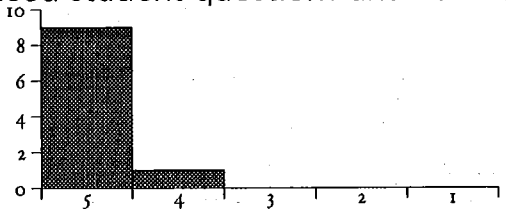


Department-wide statistics:	Data Sample Too Small						
College-wide statistics:	Responses:	1,934	Mean:	4.13	Median:	4	StDev: 0.959
University-wide statistics:	Responses:	16,126	Mean:	4.35	Median:	5	StDev: 0.897

Question 4: The instructor addressed student questions and comments.

RESPONSES: 10 MEAN: 4.90

5	Always	9
4	Very often	1
3	Sometimes	0
2	Rarely	0
1	Not Observed	0



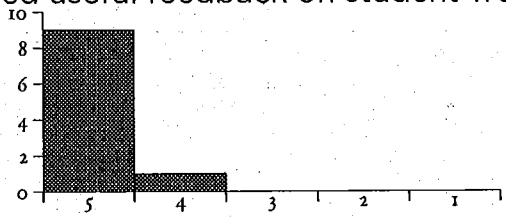
DEPARTMENT-WIDE STATISTICS: DATA SAMPLE TOO SMALL

COLLEGE-WIDE STATISTICS:	RESPONSES:	1,931	MEAN:	4.51	MEDIAN:	5	STDEV:	0.766
UNIVERSITY-WIDE STATISTICS:	RESPONSES:	16,108	MEAN:	4.61	MEDIAN:	5	STDEV:	0.730

Question 5: The instructor provided useful feedback on student work.

RESPONSES: 10 MEAN: 4.90

5	Always	9
4	Very often	1
3	Sometimes	0
2	Rarely	0
1	Not Observed	0



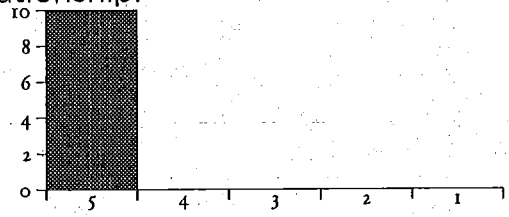
DEPARTMENT-WIDE STATISTICS: DATA SAMPLE TOO SMALL

COLLEGE-WIDE STATISTICS:	RESPONSES:	1,931	MEAN:	4.09	MEDIAN:	4	STDEV:	1.024
UNIVERSITY-WIDE STATISTICS:	RESPONSES:	16,080	MEAN:	4.31	MEDIAN:	5	STDEV:	0.980

Question 6: The instructor treated students with fairness and respect appropriate for a professional relationship.

RESPONSES: 10 MEAN: 5.00

5	Always	10
4	Very often	0
3	Sometimes	0
2	Rarely	0
1	Not Observed	0



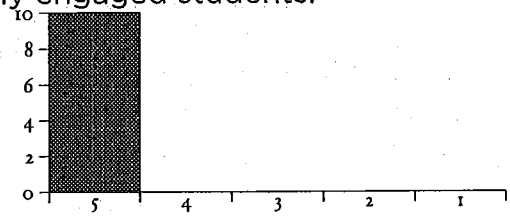
DEPARTMENT-WIDE STATISTICS: DATA SAMPLE TOO SMALL

COLLEGE-WIDE STATISTICS:	RESPONSES:	1,931	MEAN:	4.71	MEDIAN:	5	STDEV:	0.594
UNIVERSITY-WIDE STATISTICS:	RESPONSES:	16,103	MEAN:	4.74	MEDIAN:	5	STDEV:	0.626

Question 7: The instructor actively engaged students.

RESPONSES: 10 MEAN: 5.00

5	Always	10
4	Very often	0
3	Sometimes	0
2	Rarely	0
1	Not Observed	0



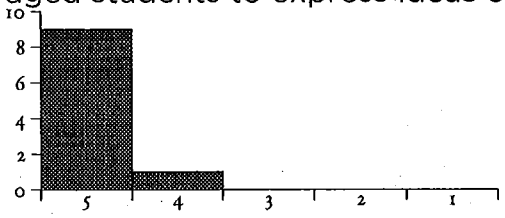
DEPARTMENT-WIDE STATISTICS: DATA SAMPLE TOO SMALL

COLLEGE-WIDE STATISTICS:	RESPONSES:	1,933	MEAN:	4.23	MEDIAN:	4	STDEV:	0.913
UNIVERSITY-WIDE STATISTICS:	RESPONSES:	16,079	MEAN:	4.42	MEDIAN:	5	STDEV:	0.869

Question 8: The instructor encouraged students to express ideas or opinions.

RESPONSES: 10 MEAN: 4.90

5	Always	9
4	Very often	1
3	Sometimes	0
2	Rarely	0
1	Not Observed	0



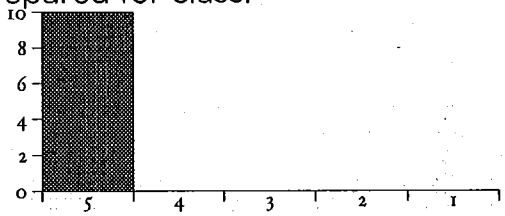
DEPARTMENT-WIDE STATISTICS: DATA SAMPLE TOO SMALL

COLLEGE-WIDE STATISTICS:	RESPONSES:	1,932	MEAN:	4.26	MEDIAN:	5	STDEV:	0.956
UNIVERSITY-WIDE STATISTICS:	RESPONSES:	16,072	MEAN:	4.44	MEDIAN:	5	STDEV:	0.882

Question 9: The instructor was prepared for class.

RESPONSES: 10 MEAN: 5.00

5	Always	10
4	Very often	0
3	Sometimes	0
2	Rarely	0
1	Not Observed	0



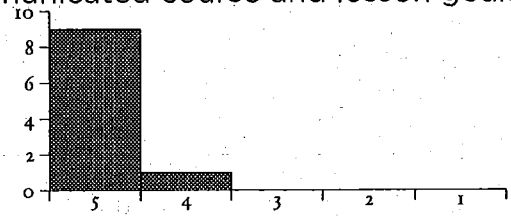
DEPARTMENT-WIDE STATISTICS: DATA SAMPLE TOO SMALL

COLLEGE-WIDE STATISTICS:	RESPONSES:	1,932	MEAN:	4.58	MEDIAN:	5	STDEV:	0.714
UNIVERSITY-WIDE STATISTICS:	RESPONSES:	16,064	MEAN:	4.70	MEDIAN:	5	STDEV:	0.634

Question 10: The instructor communicated course and lesson goals.

RESPONSES: 10 MEAN: 4.90

5	Always	9
4	Very often	1
3	Sometimes	0
2	Rarely	0
1	Not Observed	0



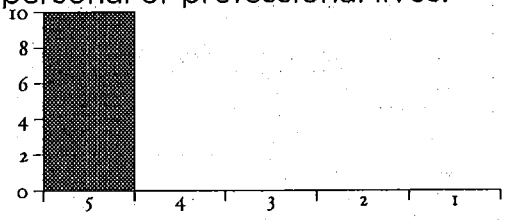
DEPARTMENT-WIDE STATISTICS: DATA SAMPLE TOO SMALL

COLLEGE-WIDE STATISTICS:	RESPONSES:	1,931	MEAN:	4.37	MEDIAN:	5	STDEV:	0.854
UNIVERSITY-WIDE STATISTICS:	RESPONSES:	16,045	MEAN:	4.52	MEDIAN:	5	STDEV:	0.794

Question 11: The instructor taught class in a way that helped students make connections to their personal or professional lives.

RESPONSES: 10 MEAN: 5.00

5	Always	10
4	Very often	0
3	Sometimes	0
2	Rarely	0
1	Not Observed	0



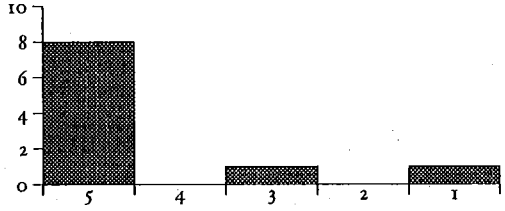
DEPARTMENT-WIDE STATISTICS: DATA SAMPLE TOO SMALL

COLLEGE-WIDE STATISTICS:	RESPONSES:	1,929	MEAN:	4.06	MEDIAN:	4	STDEV:	1.036
UNIVERSITY-WIDE STATISTICS:	RESPONSES:	16,017	MEAN:	4.25	MEDIAN:	5	STDEV:	1.017

Question 12: The instructor was open to student feedback about the course and instructional methods.

RESPONSES: 10 MEAN: 4.40

5	Always	8
4	Very often	0
3	Sometimes	1
2	Rarely	0
1	Not Observed	1



DEPARTMENT-WIDE STATISTICS: DATA SAMPLE TOO SMALL

COLLEGE-WIDE STATISTICS:	RESPONSES:	1,931	MEAN:	4.24	MEDIAN:	5	STDEV:	1.001
UNIVERSITY-WIDE STATISTICS:	RESPONSES:	16,003	MEAN:	4.34	MEDIAN:	5	STDEV:	1.040

Question 13: Tell a future student about this instructor and course.
See **EVALUATION COMMENTS** below

EVALUATION COMMENTS

Only questions for which comments were provided appear below.

Question 1: The instructor taught the subject in a way that helped students learn.

1. He always provided useful examples for every topic that we covered in order for us to get more practice and a better understanding of the material.
2. Lessons and way of teaching is understandable

Question 3: The instructor asked questions that promoted thinking.

1. He will ask the class how we think problems should be viewed or solved.

Question 4: The instructor addressed student questions and comments.

1. Whenever a student had a question, Dr. Dahm would explain really well and make sure that they understood.
2. Questions asked during the class time where we worked on problems on our own were further explained to students individually. It was very helpful; specially to students who don't want to ask in front of the entire class.

Question 5: The instructor provided useful feedback on student work.

1. Every homework and exam we got back would have comments so that you could see everywhere you lost point and why.
2. Made good notes on exams

Question 7: The instructor actively engaged students.

1. Often made helpful analogies involving the class and also had us try to explain how to solve problems.

Question 8: The instructor encouraged students to express ideas or opinions.

1. encouraged students to try to participate. "it's ok if your wrong"

Question 10: The instructor communicated course and lesson goals.

1. Would layout what lessons were going to be taught this week and next week.

Question 11: The instructor taught class in a way that helped students make connections to their personal or professional lives.

1. He would explain how the problems we were working on related to actual chemical engineering jobs
2. All of our in class examples were based on real world situations or processes, so they are directly related to what chemical engineers do in their daily jobs.

Question 13: Tell a future student about this instructor and course.

1. Professor Dahm is a good teacher and will get you to understand the material.
2. Dahm was one of the best instructors i've ever had. he understands the material very well, is able to make very good analogies to help with complicated concepts. one of the things I didnt like was how homework was assigned. I was okay with groups of three, but the fact that there was five problems instead of something divisible by 3 drove me crazy. additionally, the exam review was never very similar to the exam. but the class was always well taught and prepared, and I wouldn't want anyone else to teach me pcp 1
3. Dr. Dahm is an amazing professor and you will definitely learn a lot in this class. He is extremely intelligent and helpful.
4. He's so nice and wants everyone to understand the lessons. During class he gives time to try problems and then he goes over how to do it. To prepare for exams, he gives out passed exams as practice and it's so helpful. He'll assist questions individually if you have any and he'll help you further if you come to his office hours.
5. I would highly recommend taking a class with Professor Dahm. He taught the material very well in a manner that was easy to understand.
6. He was the best professor I have ever had. He really cared about everyone passing the class and understanding the information. The book was very confusing so he used his own examples along with explaining the book's examples in great detail. He always had exams graded by the next class. I would definitely take him again.
7. Dahm is a really good professor. You can tell that he loves teaching new students and is very accommodating. He constantly stops to ask if the students have questions and explains every step to solve a problem in class. His homework can be challenging, as it must be done in a group, but at least he assigns a group by availability. His tests are just like his in class problems and he even gives us a previous test to practice on before the test. He was a joy to have this semester and I hope to have him in the future.
8. Dr. Dahm is a great professor. He teaches in a way that is very easy to follow helps students understand the material. His tests show the material that he teaches in class and if you pay attention, you will do well. Dr. Dahm is very friendly and upbeat for all his classes. Lastly, he encourages students to look forward are prepare for their professional engineering careers.
9. Professor Dahm makes the class easy to process and digest. All the material is easy to understand and he does it in an effective way.

Rowan University

Student Evaluation of Teaching Effectiveness Report

Dahm, Kevin D.
Fall 2018
CHE 06.201.1
PRIN CHEM PROCES I

ROWAN UNIVERSITY
STUDENT EVALUATION OF TEACHING EFFECTIVENESS REPORT

CHE 06.201.1 (Dahm, Kevin D.) PRIN CHEM PROCES I
Evaluation Administered: Fall 2018 (201840)
Number of students enrolled: 26
Number of evaluations completed: 9
Comparative overall statistics:

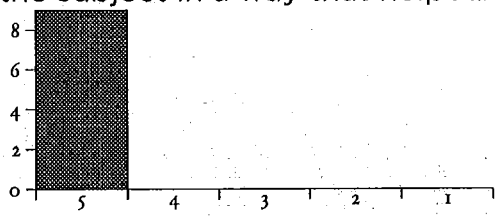
This evaluation:	Responses:	108	Mean:	4.98	Median:	5	StDev:	0.135
Department-wide:	Data Sample Too Small							
College-wide:	Responses:	21,318	Mean:	4.39	Median:	5	StDev:	0.864
University-wide:	Responses:	210,002	Mean:	4.51	Median:	5	StDev:	0.832

STATISTICAL PRESENTATION OF EVALUATION RESULTS

Question 1: The instructor taught the subject in a way that helped students learn.

Responses: 9 Mean: 5.00

5	Always	9
4	Very often	0
3	Sometimes	0
2	Rarely	0
1	Never	0

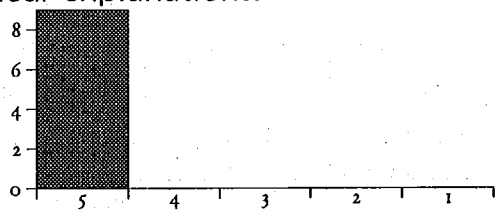


Department-wide statistics:	Data Sample Too Small						
College-wide statistics:	Responses:	1,792	Mean:	4.27	Median:	4	StDev:	0.885
University-wide statistics:	Responses:	17,635	Mean:	4.44	Median:	5	StDev:	0.849

Question 2: The instructor gave clear explanations.

Responses: 9 Mean: 5.00

5	Always	9
4	Very often	0
3	Sometimes	0
2	Rarely	0
1	Never	0

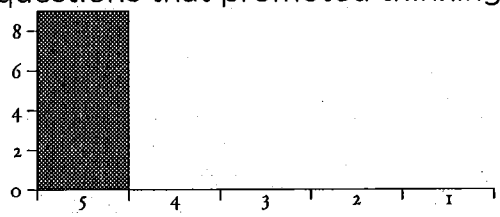


Department-wide statistics:	Data Sample Too Small						
College-wide statistics:	Responses:	1,784	Mean:	4.20	Median:	4	StDev:	0.893
University-wide statistics:	Responses:	17,568	Mean:	4.38	Median:	5	StDev:	0.867

Question 3: The instructor asked questions that promoted thinking.

Responses: 9 Mean: 5.00

5	Always	9
4	Very often	0
3	Sometimes	0
2	Rarely	0
1	Never	0

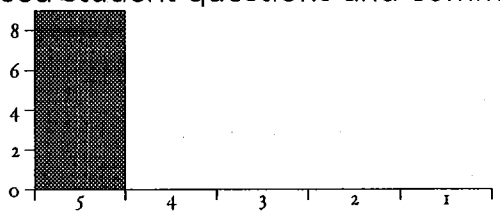


Department-wide statistics:	Data Sample Too Small						
College-wide statistics:	Responses:	1,776	Mean:	4.26	Median:	5	StDev:	0.894
University-wide statistics:	Responses:	17,536	Mean:	4.42	Median:	5	StDev:	0.861

Question 4: The instructor addressed student questions and comments.

RESPONSES: 9 MEAN: 5.00

5	Always	9
4	Very often	0
3	Sometimes	0
2	Rarely	0
1	Never	0



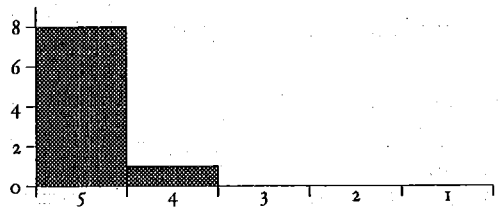
DEPARTMENT-WIDE STATISTICS: DATA SAMPLE TOO SMALL

COLLEGE-WIDE STATISTICS:	RESPONSES:	1,775	MEAN:	4.59	MEDIAN:	5	STDEV:	0.724
UNIVERSITY-WIDE STATISTICS:	RESPONSES:	17,528	MEAN:	4.66	MEDIAN:	5	STDEV:	0.710

Question 5: The instructor provided useful feedback on student work.

RESPONSES: 9 MEAN: 4.89

5	Always	8
4	Very often	1
3	Sometimes	0
2	Rarely	0
1	Never	0



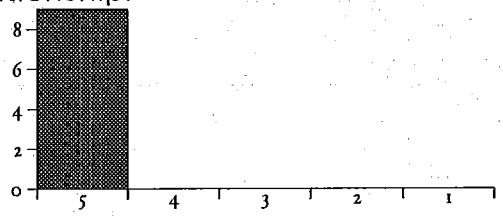
DEPARTMENT-WIDE STATISTICS: DATA SAMPLE TOO SMALL

COLLEGE-WIDE STATISTICS:	RESPONSES:	1,772	MEAN:	4.22	MEDIAN:	5	STDEV:	0.978
UNIVERSITY-WIDE STATISTICS:	RESPONSES:	17,505	MEAN:	4.39	MEDIAN:	5	STDEV:	0.943

Question 6: The instructor treated students with fairness and respect appropriate for a professional relationship.

RESPONSES: 9 MEAN: 5.00

5	Always	9
4	Very often	0
3	Sometimes	0
2	Rarely	0
1	Never	0



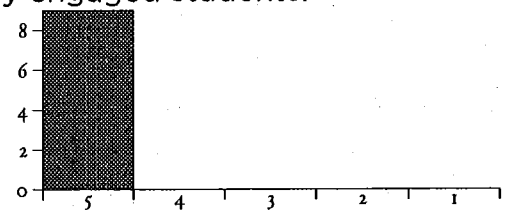
DEPARTMENT-WIDE STATISTICS: DATA SAMPLE TOO SMALL

COLLEGE-WIDE STATISTICS:	RESPONSES:	1,778	MEAN:	4.74	MEDIAN:	5	STDEV:	0.613
UNIVERSITY-WIDE STATISTICS:	RESPONSES:	17,496	MEAN:	4.76	MEDIAN:	5	STDEV:	0.618

Question 7: The instructor actively engaged students.

RESPONSES: 9 MEAN: 5.00

5	Always	9
4	Very often	0
3	Sometimes	0
2	Rarely	0
1	Never	0



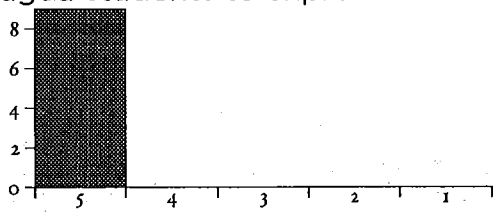
DEPARTMENT-WIDE STATISTICS: DATA SAMPLE TOO SMALL

COLLEGE-WIDE STATISTICS:	RESPONSES:	1,778	MEAN:	4.36	MEDIAN:	5	STDEV:	0.846
UNIVERSITY-WIDE STATISTICS:	RESPONSES:	17,505	MEAN:	4.50	MEDIAN:	5	STDEV:	0.833

Question 8: The instructor encouraged students to express ideas or opinions.

RESPONSES: 9 MEAN: 5.00

5	Always	9
4	Very often	0
3	Sometimes	0
2	Rarely	0
1	Never	0



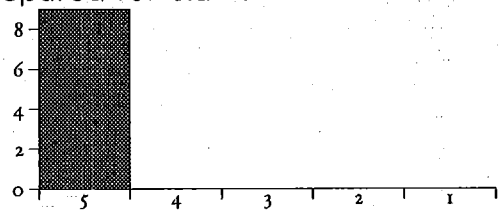
DEPARTMENT-WIDE STATISTICS: DATA SAMPLE TOO SMALL

COLLEGE-WIDE STATISTICS:	RESPONSES:	1,772	MEAN:	4.39	MEDIAN:	5	STDEV:	0.859
UNIVERSITY-WIDE STATISTICS:	RESPONSES:	17,471	MEAN:	4.52	MEDIAN:	5	STDEV:	0.830

Question 9: The instructor was prepared for class.

RESPONSES: 9 MEAN: 5.00

5	Always	9
4	Very often	0
3	Sometimes	0
2	Rarely	0
1	Never	0



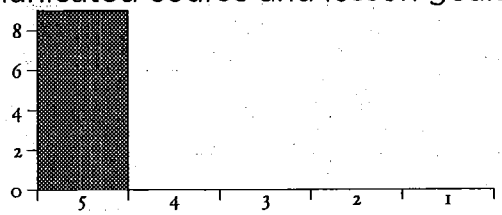
DEPARTMENT-WIDE STATISTICS: DATA SAMPLE TOO SMALL

COLLEGE-WIDE STATISTICS:	RESPONSES:	1,778	MEAN:	4.67	MEDIAN:	5	STDEV:	0.649
UNIVERSITY-WIDE STATISTICS:	RESPONSES:	17,472	MEAN:	4.74	MEDIAN:	5	STDEV:	0.592

Question 10: The instructor communicated course and lesson goals.

RESPONSES: 9 MEAN: 5.00

5	Always	9
4	Very often	0
3	Sometimes	0
2	Rarely	0
1	Never	0



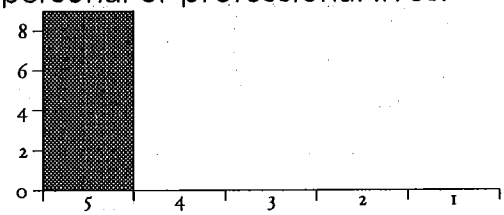
DEPARTMENT-WIDE STATISTICS: DATA SAMPLE TOO SMALL

COLLEGE-WIDE STATISTICS:	RESPONSES:	1,775	MEAN:	4.44	MEDIAN:	5	STDEV:	0.842
UNIVERSITY-WIDE STATISTICS:	RESPONSES:	17,464	MEAN:	4.57	MEDIAN:	5	STDEV:	0.772

Question 11: The instructor taught class in a way that helped students make connections to their personal or professional lives.

RESPONSES: 9 MEAN: 5.00

5	Always	9
4	Very often	0
3	Sometimes	0
2	Rarely	0
1	Never	0



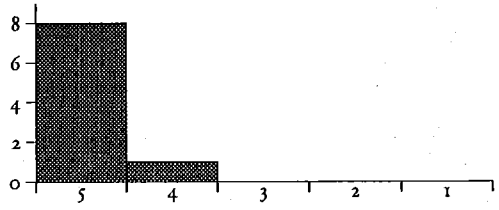
DEPARTMENT-WIDE STATISTICS: DATA SAMPLE TOO SMALL

COLLEGE-WIDE STATISTICS:	RESPONSES:	1,773	MEAN:	4.19	MEDIAN:	5	STDEV:	0.979
UNIVERSITY-WIDE STATISTICS:	RESPONSES:	17,428	MEAN:	4.33	MEDIAN:	5	STDEV:	0.974

Question 12: The instructor was open to student feedback about the course and instructional methods.

RESPONSES: 9 MEAN: 4.89

5	Always	8
4	Very often	1
3	Sometimes	0
2	Rarely	0
1	Never	0



DEPARTMENT-WIDE STATISTICS: DATA SAMPLE TOO SMALL

COLLEGE-WIDE STATISTICS:	RESPONSES:	1,765	MEAN:	4.40	MEDIAN:	5	STDEV:	0.895
UNIVERSITY-WIDE STATISTICS:	RESPONSES:	17,394	MEAN:	4.45	MEDIAN:	5	STDEV:	0.907

Question 13: Tell a future student about this instructor and course.
See **EVALUATION COMMENTS** below

EVALUATION COMMENTS

Only questions for which comments were provided appear below.

Question 1: The instructor taught the subject in a way that helped students learn.

1. Diagrams and working through the solutions in class were especially helpful.
2. He was very open on taking questions and reworded problems that sometimes did not make sense the first time.

Question 2: The instructor gave clear explanations.

1. Any questions I had were explained thoroughly and clearly

Question 3: The instructor asked questions that promoted thinking.

1. For the class we he was teaching, he did a good job of asking theoretical questions through homework and in class when it was relevant

Question 4: The instructor addressed student questions and comments.

1. Professor Dahm always took time to address questions and to give students one-on-one attention when working through examples.
2. He went above and beyond to helping anyone, including me.
3. Very prompt and clear explanations. Answered emails quickly.

Question 5: The instructor provided useful feedback on student work.

1. Our homework assignment were always returned with lots of helpful comments and suggestions written in.
2. Tests had good feedback, but homeworks, which were graded by a grad student were often lacking in feedback

Question 6: The instructor treated students with fairness and respect appropriate for a professional relationship.

1. 10/10 very nice professor
2. We had a fun relationship with Professor Dahm, but it never felt unprofessional.

Question 7: The instructor actively engaged students.

1. Class involvement was the key that made this class function as well as it did.

Question 8: The instructor encouraged students to express ideas or opinions.

1. Asked for class questions and ideas/ solutions to problems when applicable

Question 9: The instructor was prepared for class.

1. Dr. Dahm always arrived with his presentation ready and started class on time.
2. Always

Question 10: The instructor communicated course and lesson goals.

1. The syllabus matched up with what was accomplished in the course.
2. He would make sure that before every class, he would tell the class what we went over last class and what we were going over that day.
3. Everything about the course was given to us in the syllabus on the first day and if anything changed we knew about it almost immediately

Question 11: The instructor taught class in a way that helped students make connections to their personal or professional lives.

1. All questions were based on processes that engineers perform in the real world
2. Dr. Dahm not only introduced us to the concepts that the class required, but he also applied it to our future careers in Chemical Engineering.

Question 12: The instructor was open to student feedback about the course and instructional methods.

1. Asked for student feedback.

Question 13: Tell a future student about this instructor and course.

1. I would highly recommend this course with this professor because I have taken this course over the summer and I feel like that I have learned more with this professor than the other one.
2. Dr. Dahm is a wonderful instructor and a fun person to be around. Despite being warned that Principle of Chemical Processes was a challenging course, Professor Dahm's teaching style made the course feel easy. He used tons of example problems and plenty of real-life application to ensure that students completely understood the material that was being covered. I feel prepared for PCP II at this point and look forward to learning more from Dr. Dahm in the future! I couldn't recommend him more as a professor. :)
3. Professor Dahm really knew how to teach this course. The way he taught it made it seem easier than it actually was. I always felt prepared for tests, and he went over problems always asking if anyone had a question or didn't understand. He cares about his students and wants them to do well, and understand that everyone makes silly mistakes, but that we can learn from them.

4. He was a fantastic teacher
5. Dr. Dahm is a really great person and an even better professor. His class has the right difficulty to it and although it can be confusing material to understand, it is still possible to do well if you put the time in. Dr. Dahm is very willing to help with any issues you may face and is definitely NOT unapproachable. He gives extra credit for going to AIChE meetings, which is a great way to get students involved and understands that students have personal lives and other work outside of his class. I would definitely recommend his class. I would even wake up for an 8:00am to take it. Dr. Dahm when you read this, I will be bugging you in your office in the future and will try to take your Thermo class when I get there. -Montana Carlozo
6. Great Professor, excellent course. The instructor was looking to teach his students to think critically and analytically rather than memorizing formulas. Homework problems were often harder than tests which I believe was helpful because the exams seemed more straightforward after the homework.
7. CHEM PROCES I can at times be a challenging class, however Dr. Dahm does a fantastic job at teaching the class. He explains things thoroughly and always asks the class if anyone has any questions. He makes the material fun and interesting and provides you with everything you need for success in that class. He does test reviews using tests from the previous year so there are never any surprises. The homework can be very challenging and personally I don't think they reflect the kind of questions you will have on the test. However, as long as you pay attention and take notes in class, there is no reason why you shouldn't pass the course. I would highly recommend taking Dr. Dahm for any course, it is clear he enjoys teaching and cares about his students and that they understand the material.
8. Dr. Dahm was a great professor, one of the best I've ever had. He always delivered the material very well and was willing to reexplain anything that could be confusing. During class, he answered all of the questions that everyone had and could explain things very well. His class policies are very fair, and he always made sure we were prepared for the exams by reviewing.

8. Syllabi from PCP I and Thermo II

The syllabi for my last two completed courses, the S18 Thermo II and the F18 PCP II, are included in this section. These are typical for most any class I have taught. The syllabi contain basic logistic information, course objectives, and my personal course policies. I note for example that I have an open-door policy in all classes that I teach, as outlined in these example syllabi. The syllabi also have a number of university-wide policies that might be relevant or helpful to the students. I also call attention to the fact that both syllabi include my half-page autobiography and that "Homework #1" in both classes was for the students to write their own brief autobiography. This is normal in classes that I teach. It is part of my process of getting to know the students, hopefully starting to develop a rapport and ensuring that the students will find me approachable.

One thing I would like to explain in more detail is the grading system for both courses. In PCP I (and Thermo I, when I have taught it) the course grade is based entirely on exams. While both courses include weekly homework, I don't factor it directly in to the course grade. A student can easily find the solutions manual for any mainstream engineering text (including mine) online and copy, and they are incentivized to do so if obtaining correct answers on the homework is significantly weighted in the course grade. What I tell my students is that the purpose of homework is to practice and they will learn the most by grappling with the problems themselves and asking questions (of me or of classmates) when they get stuck. Therefore, I assign weekly homework and give detailed feedback on the homework, but I grade it using a ✓+, ✓, ✓- system. Homework is not weighted directly in the course grade but I do provide an incentive to attempt the homework: the lowest test grade counts only 10% for students who receive more ✓+ than ✓-, while all four exams are weighted equally for students who don't. Everyone who submits a bio receives a ✓+, which means that anyone who makes a sincere attempt at every other assignment throughout the semester and earns at least checks will earn a break on their lowest test grade. I recognize that anyone can have one bad day on which their exam performance does not truly reflect ability for

various reasons. I myself failed one exam when I took WPI's equivalent to PCP I in 1989, and I routinely tell the students this when I am going over the syllabus on the first day of class.

In Thermo II, however, the course outcomes include building and using models that are big enough in scope that the entire process can't realistically be completed within the confines of a timed exam. I certainly write relevant exam questions that can be answered in a comparatively short time: testing single steps in the modeling process, asking qualitative questions about the whole process, etc. However, I also think it is important that students not be able to earn a good grade in the course unless they show they can carry out the construction and application of a model from beginning to end, which they do in the computer labs.

Thermo II has a single period and a double period each week. The single periods are dedicated to introducing and exploring new topics on a conceptual level. This is usually done using the approach of inductive examples followed by generalization that I described in section 2. The double periods are dedicated to computer labs. I typically spend the first 20-30 minutes of the period introducing the topic of the lab and discussing the goals, which usually involves introducing a couple of new conceptual points. The rest of the double period is spent with the students working either individually or in pairs on the lab while I circulate and answer questions. Often, students are able to complete most or all of the lab activity during the double period, and their write up of their results is included as part of their next weekly homework assignment. The computer labs are all written to provide an in-depth look at an important topic and none of them are taken from a textbook, so there is no way for students to use an online solution manual as a resource, though they are allowed to confer with each other on solution strategies. "Homework," which includes the labs, is 25% of the course grade, with the lowest test grade weighted 9% and the other three tests weighted 22% each.

ROWAN UNIVERSITY
DEPARTMENT of CHEMICAL ENGINEERING

Course	**Time**
CHE 06201, Principles of Chemical Processes I	Section 1: M 3:30-4:45, W 3:30-6:15 REXT 107

Instructor

Dr. Kevin Dahm

Professor of Chemical Engineering

Office: Rowan Hall 330, office hours by appointment

Tel: (856) 256-5318, e-mail: dahm@rowan.edu

Course Website

rowan.blackboard.com

Course Description

This course presents an introduction to chemical engineering calculations; processes, process variables, and design. Material balances for chemically non-reacting and reacting systems are described. Single-phase and multi-phase systems; property tables and diagrams are covered.

Pre-requisite: Freshman Engineering Clinic I, Chemistry II, Physics I, Calculus II

Note: Principles of Chemical Processes II (Spring) will continue the theme of this course into energy balances

Text

REQUIRED –

- R.M. Felder, R.W. Rousseau, and L.G. Bullard, Elementary Principles of Chemical Processes, 4th Ed., John Wiley & Sons, New York, 2016.

Objectives

The course will cover Chapters 1-6 of the text. Specific learning objectives include:

- Apply basic calculation methods to chemical processes
- Quantify various process parameters used in processes
- Utilize various process parameters in the solution of a material balance
- Perform individual, multiple and complex (recycle) material balances on non reacting processes
- Apply material balances to chemical, pharmaceutical, petrochemical, biochemical, food and beverage, consumer products production and other production processes.
- Perform balances on reacting processes
- Determine limiting and excess reactant, fractional conversion, extent of reaction, yield and selectivity.
- Use liquid and solid densities for single phase systems in solving mass balances
- Apply the ideal gas law to simple processing balances
- Determine real gas law behavior utilizing virial eqns of state, cubic eqns of state, and the compressibility factor equation of state.
- Analyze single component phase equilibrium using a solid-liquid-vapor-gas phase diagram
- Estimate single component vapor pressure using Clausius-Clapeyron eqn, Cox Charts and Antoine eqn.
- Perform material balances on gas-liquid systems with one condensable component
- Apply Raoult's and Henry's laws to calculate the distribution of a substance in vapor-liquid systems
- Calculate the distribution of product in immiscible liquid systems
- Utilize graphical and computer methods to solve process problems
- Explain safety and environmental issues in chemical processing to an audience of peers or high school students

Homework

Homework assignments will be completed and submitted by teams, typically of three. Only one solution per team will be accepted. Homework solutions can be submitted EITHER hard copy OR electronically via Blackboard, but NOT BOTH (in other words, do not submit some of the problems for a single assignment via blackboard and others via hard copy.)

Homework solutions are evaluated using the following scale:

✓+ Solutions are 100% correct and presented in a thorough, logical fashion

✓ Solutions contain some errors but present a reasonable attempt at solving all problems

✓- Solutions contain multiple substantial conceptual errors, and/or give only a cursory attempt at solving some problems. Solutions are not presented in a professional manner: not stapled, pages out of order, etc.

Zero – No solution submitted. Counts the same as THREE ✓- grades.

The primary purpose of homework is to give you practice solving problems and feedback on what you are doing right and wrong.

Exams

The course will have 4 exams. All exams will be comprehensive, but with an emphasis on material covered since the last exam.

All exams will be CLOSED-BOOK, but for each exam, you may prepare an 8.5x11" sheet containing key equations and any other information you wish. During the exam, you cannot have any materials on your desk other than:

- the test itself
- your 8.5x11" sheet
- a calculator
- writing utensils
- a water or drink bottle

The use of cell phones and other electronic communication devices is strictly prohibited during exams, as is talking to your neighbors. "I wasn't talking about the exam" is not an acceptable excuse.

Grading

The course will have 4 exams. If you have MORE ✓+ than ✓- throughout the semester, your exam average will be calculated as follows:

Lowest Exam Grade: 10%

Other Three Exam Grades: 30% each

If you have AT LEAST AS MANY ✓- as ✓+ grades, your course grade will be based upon a simple average of the four individual exam grades.

Numerical averages will be translated into letter grades using the following scale:

93.0+	A	73.0-76.9	C
90.0-92.9	A-	70.0-72.9	C-
87.0-89.9	B+	67.0-69.9	D+
83.0-86.9	B	63.0-66.9	D
80.0-82.9	B-	60.0-62.9	D-
77.0-79.9	C+	below 60.0	F

Note that a C- or better in this course is the required prerequisite for Principles of Chemical Processes II.

Bonus for Extracurricular Participation:

This course serves as your first curricular introduction to the discipline of Chemical Engineering. Consequently, to encourage and reward participation in the Chemical Engineering professional society, I will increase your final course average by 1% if you meet these criteria:

- Join AIChE as a national member. This is free for undergraduates and can be done through the AIChE web site at http://www.aiche.org/
- Attend at least three meetings or other events sponsored by the Rowan student chapter of AIChE this semester.

Responsibilities: To succeed in this class, you should come to class prepared, ask questions on points that you do not understand, attempt all homework problems, and follow the cooperative learning guidelines. In this class, if you have not worked diligently on the homework assignments, don't follow what is covered in class, and do not read the book (including the examples/exercises that are in the book), the tests will be difficult. Using the "divide and conquer" approach to completing homework problems will not likely result in success.

My responsibilities are to come to class prepared and make the best possible use of class time, make myself available for questions both in and out of class, attempt to answer all serious questions, administer fair but challenging exams, and assign grades that fairly represent how well you have achieved the learning objectives of the course.

I consider this classroom to be a place where you will be treated with respect, and I welcome individuals of all ages, backgrounds, beliefs, ethnicities, genders, gender identities, gender expressions, national origins, religious affiliations, sexual orientations, ability, veteran status – and other visible and nonvisible differences. All members of this class, students and faculty, are expected to contribute to a respectful, welcoming and inclusive environment for every other member of the class.

Policies

1. Students are encouraged to seek help and ask questions outside of class time. I do not schedule specific office hours but have an open door policy. Any time I am in the office and my door is open you are welcome to come in and ask questions about the course, etc. I rarely close my office door during the semester. When I do it usually means we are discussing something personal or sensitive. If my door is closed I would appreciate your coming back later unless it's an emergency. Please ask questions before the assignment due date – do not assume I will be available to help on the same day an assignment is due. **If you want to schedule a specific time to meet, email is the best way to do that.** Alternately, many questions are readily addressed by email.
2. Regular attendance is expected. You are responsible for all material and all information disseminated in class whether you are present in class or not and whether it is also in the book or not.
3. If you miss an exam, you will have the opportunity to make up the exam only if the absence was excused. The university's attendance policy is given at:

https://confluence.rowan.edu/display/POLICY/Attendance+Policy

4. Exams start at a specified time, and they will have a specified duration. This means that all students must hand in the exam at the finish time, even if they arrived late for the start of the exam.
5. The instructor is not obligated to grade late work. You have multiple team members – at least one must be present in class and able to hand in the work for the group on time.
6. Collaboration within and among study teams for homework is acceptable and encouraged, but all tests must be done independently.
7. If you feel that a test problem has been graded improperly (except for a miscalculation of points), you must resubmit the problem at the next regularly scheduled class meeting after the exam is returned, with a written appeal and explanation of your solution. Upon receipt of this formal appeal, I will regrade the problem. This means that your score may go up or down.
8. Academic dishonesty of any kind will result in failure of the course and will, by University policy, be referred to the Provost's office for potential further discipline. Please see the *Rowan University Academic Integrity Policy*; the policy can be found at

   https://confluence.rowan.edu/display/POLICY/Academic+Integrity+Policy

9. Academic dishonesty includes, but is not limited to: accessing the internet during an exam, copying from another student on an exam, communicating with another person (verbally or electronically) during an exam, submitting work performed by another as your own, tampering with or in any way altering another person's work without their knowledge and consent, and misrepresenting your contribution to a group project.
10. Putting your name on a team assignment is a statement that you have contributed meaningfully to it. It is also a statement that all other students whose names appear on the assignment have contributed meaningfully. Do not include a name (yours or someone else's) if that person has not contributed meaningfully to an assignment. This falls under the category of academic honesty.
11. Students are expected to conduct themselves in an acceptable manner at all times. Students who violate public law or the rights of others and interfere with the educational process will be referred to the proper authorities. Course final grade will be reduced for unprofessional conduct in class, failure to follow proper safety procedures, disruptive activity or other behavior as deemed not appropriate.
12. Individual questions about homework problems are most appropriately addressed outside of class. The exception is when class time is devoted to a homework solution review.

UNIVERSITY WIDE POLICIES AND PROCEDURES

All students are expected to behave professionally. Examples of unprofessional behavior include but are NOT limited to, being late to class (see below), walking in and out of class while in session, the use of ***unauthorized electronic devices in class***, working on assignments foreign to the class, sleeping in class, and chatting in class.

Students are expected to be ready for class at the beginning of the class period.

The university policy can be found at
https://confluence.rowan.edu/display/POLICY/Classroom+Behavior

MOBILE ELECTRONIC DEVICE POLICY

The *Classroom Behavior Policy and Procedures* prohibits the use of ***unauthorized electronic devices.***

Please see the attached *Rowan University Mobile Electronic Device Policy*; the policy can also be found at:
https://confluence.rowan.edu/display/POLICY/Mobile+Electronic+Device+Policy

ACADEMIC ACCOMODATION

If you have a documented disability that may have an impact on your work in this class, please contact the instructors. Students must provide documentation of their disability to the Academic Success Center in order to receive official University services and accommodations. The Academic Success Center can be reached at 856-256-4234. The Center is located on the 3rd floor of Savitz Hall.

https://sites.rowan.edu/disabilityresources/

WITHDRAWL SIGNATURE SCHEDULE

The University schedule for allowable withdrawl from a course, and the required approvals, are summarized in the following:

http://www.rowan.edu/provost/registrar/forms/F17Registration-relatedDates.pdf

REPEATING A COURSE

Students should note the policy that prohibits taking a course more than twice without approval from the Department Head:

https://confluence.rowan.edu/display/POLICY/Repeating+a+Course+Policy

Autobiography of Dr. Dahm

I have been in the Chemical Engineering Department at Rowan since 1999. I received my B.S. in Chemical Engineering from Worcester Polytechnic Institute in 1992 and my Ph.D. in Chemical Engineering from Massachusetts Institute of Technology in February of 1998. I spent 10 months as a Postdoctoral Researcher at University of California at Berkeley and one semester as an Adjunct Professor at North Carolina A&T State University prior to joining the faculty at Rowan. In my time at Rowan, in addition to Principles of Chemical Processes I, I have taught Chemical Engineering Thermodynamics I and II, Chemical Plant Design, Chemical Process Component Design, Chemical Reaction Engineering, Equilibrium Staged Operations (which later become Separations I), Sophomore Engineering Clinic I and II and Freshman Engineering Clinic I. I have published a book with my father Donald Dahm, called Interpreting Diffuse Reflectance and Transmittance, and I have written a textbook Fundamentals of Chemical Engineering Thermodynamics with Donald Visco, a colleague from the University of Akron.

This semester I have a reduced teaching load because of two major service activities that I am taking on for the university: I am serving as chair of the Senate Tenure and Recontracting committee, and I am leading the Chemical Engineering department's accreditation efforts.

I live in Sewell and I love my house but I also love to travel. In my life I have been to 47 states (missing North Dakota, Nebraska and Idaho) as well as Canada, Mexico, Spain, England, Scotland, Ireland, Greece, and Turkey, and a number of Caribbean island countries.

I have been active in college and community theater since I was a freshman in college. My favorite play that I've done is THE BOYS NEXT DOOR. My most recent production was CAT ON A HOT TIN ROOF with Village Playbox, last November. I've also been playing chess competitively for many years, and can be found on the website "chess.com" under the name "kevdahm".

Homework #1

Please submit a brief autobiography of yourself *through Blackboard* by the start of class on Monday, September 10. This is the only individual homework assignment of the semester, and will help ensure that all students are able to access Blackboard successfully.

Spring 2018: Chemical Engineering Thermodynamics II- Section 2

Instructor: Kevin Dahm, 330 Rowan Hall, 256-5318, dahm@rowan.edu

Text: *Fundamentals of Chemical Engineering Thermodynamics* by Kevin Dahm and Donald Visco.

Course Schedule: We will be meeting Mondays from 12:30-3:15 in Rowan Hall Extension 107, and Wednesdays from 8-9:15, also in Rowan Hall Extension 107. However, Monday double periods will often be devoted to computer lab activities and we will often be moving to Rowan Hall 322.

Attendance: There is no specific attendance policy. However, you're responsible for everything that is covered in class, whether you were there that day or not, and whether it is also in the textbook or not. This includes announcements regarding exam dates, due dates, etc.

One comprehensive make-up exam will be scheduled at the end of the semester. Anyone who misses any one of the four exams will have the opportunity to take this make-up exam, and it will count as the exam they missed. The make-up exam will be scheduled at a time mutually convenient for the professor and the students who need to take it.

Office Hours: I have an open door policy- if I am in the office, you are welcome to come and see me to talk about the course. If you want to schedule a specific time to talk, email is the best way to schedule an appointment.

I rarely close my door when I'm in the office: if I do, it usually means I'm in an important meeting that is likely to last a long time and/or we're discussing something sensitive and don't wish to be interrupted. So, in the event that my door is closed I would appreciate your coming back later unless it's urgent.

Exams: The *tentative* schedule for exams is as follows:

Exam 1: Wednesday, February 21

Exam 2: Wednesday, March 21

Exam 3: Wednesday, April 11

Final Exam: As scheduled by University

All exams are comprehensive, with an emphasis on material covered since the previous exam. You are allowed to bring books, class notes, and any other written materials you wish, to exams.

Homework: Homework assignments will be completed and submitted EITHER individually OR in pairs. If you choose to work in pairs, the pairs are self-selected and you don't need to keep the same pairs for every assignment. In addition, you are encouraged to discuss solution strategies, etc. with classmates, beyond your teammate for the assignment.

Homework assignments can be submitted either as hard copy or via blackboard. Many homework assignments will require use of spreadsheets, and you are welcome to submit solutions in the form of EXCEL files using Blackboard. However, EXCEL files do not "stand on their own" unless they are well annotated. For full credit, your solution must be presented in a way that the reader can follow.

Grading: Your grade for the class will be determined as follows:

Lowest Exam Score: 9%

Other Three Exam Scores: 22% each

Homework/Labs: 25%

Course grade is determined from the following scale.

93.0+	A	73.0-76.9	C
90.0-92.9	A-	70.0-72.9	C-
87.0-89.9	B+	67.0-69.9	D+
83.0-86.9	B	63.0-66.9	D
80.0-82.9	B-	60.0-62.9	D-
77.0-79.9	C+	below 60.0	F

Academic Accommodation: Your academic success is important. If you have a documented disability that may have an impact upon your work in this class, please contact me. Students must provide documentation of their disability to the Academic Success Center in order to receive official University services and accommodations. The Academic Success Center can be reached at 856-256-4259. The Center is located on the 3rd floor of Savitz Hall. The staff is available to answer questions regarding accommodations or assist you in your pursuit of accommodations.

Academic Integrity: Any student who copies from another student or otherwise cheats on an exam will receive a 0 on that exam and will be reported to the Provost's office for potential further disciplinary action. Passing notes, conversing with classmates or using an electronic communication device during an exam is considered cheating- "We weren't talking about the exam" is not an acceptable explanation. The complete University policy on academic integrity is available at:

https://confluence.rowan.edu/display/POLICY/Academic+Integrity+Policy

DIVERSITY STATEMENT: This course is an equal opportunity and inclusive environment. There will be no discrimination on the basis of age, background, belief, ethnicity, gender, gender identity or expression, national origin, religious affiliation, sexual orientation, or any other visible or invisible difference. All members of this class are expected to contribute to a respectful, welcoming environment

for every other member of the class, faculty and laboratory staff. Information on the Rowan University diversity policy and procedures can be found at http://www.rowan.edu/equity/

Withdrawal:

Policies and deadlines for withdrawing from a course are available from the Registrar's office: http://www.rowan.edu/provost/registrar/courseschedule.html

Repeating a Course:
Students should note the policy which prohibits taking a course more than twice without special permission: https://confluence.rowan.edu/display/POLICY/Repeating+a+Course+Policy

Topics: This class will cover chapters 9-15 of the Dahm/Visco text. There is a list of instructional objectives at the beginning of each chapter of the Dahm/Visco text.

Student Responsibilities:

- Attend all scheduled class meetings unless there's a good reason not to.
- Participate meaningfully in class meetings.
- Avoid behavior that is disruptive to class or distracting to other students.
- Interact with faculty and peers in a respectful, professional and friendly way.
- Do your best to achieve the Instructional Objectives of the course, using the resources you have available.

Instructor Responsibilities:

- Come well prepared to scheduled class meetings, and use the time as constructively as possible.
- Be available outside of scheduled class time.
- Interact with students in a respectful, professional and friendly way.
- Assign homework problems that will help students achieve the Instructional Objectives of the course.
- Grade assignments and exams promptly and fairly, with clear feedback that helps students to learn from their errors.
- Write challenging, but fair, exams.
- Assign grades that accurately reflect how well students achieved the Instructional Objectives of the course.

Autobiography of Dr. Dahm

I have been a professor at Rowan since 1999. I received my B.S. in Chemical Engineering from Worcester Polytechnic Institute in 1992 and my Ph.D. in Chemical Engineering from Massachusetts Institute of Technology in February of 1998. I spent 10 months as a Postdoctoral Researcher at University of California at Berkeley and one semester as an Adjunct Professor at North Carolina A&T State University prior to joining the faculty at Rowan. In my time at Rowan, in addition to Thermodynamics, I have taught Principles of Chemical Processes I, Chemical Plant Design, Chemical Process Component Design, Chemical Reaction Engineering, Equilibrium Staged Operations (which later become Separations I), Sophomore Engineering Clinic I and II and Freshman Engineering Clinic I, as well as some senior electives.

I have published a book with my father Donald Dahm, called Interpreting Diffuse Reflectance and Transmittance. My textbook, which is the adopted book for this course, was published in February of 2014, and was written with Donald Visco, a friend and colleague from the University of Akron.

I love to travel. In my life I have been to 48 states (missing Nebraska and Idaho) as well as Canada, Mexico, Spain, England, Scotland, Ireland, Greece, and Turkey, and a number of the Caribbean islands. I have been acting in amateur theater since I was a freshman in college. My favorite play that I've done is THE BOYS NEXT DOOR. My most recent production was CAT ON A HOT TIN ROOF with Village Playbox in Haddon Heights. I've been playing chess competitively for many years, and can be found on the website "chess.com" under the name "kevdahm."

Homework #1 (10 points):

Write an autobiography of yourself and submit it via Blackboard.

9. Additional Materials

This section contains two items: a summary of my course and teacher evaluations from my first 14 years at Rowan, and my CV.

From Fall 1999 through Spring 2013, all of my course and teacher evaluations were administered in class, which ensured near-complete participation. Each of these evaluations included the question "Considering everything, how would you rate this teacher?" with 5 corresponding to "Excellent" and 1 corresponding to "Poor." Table 1 summarizes the results of these evaluations.

In Spring 2013 I was promoted to Professor. Since I did not expect to need such data for any more formal applications, I continued to implement course and teacher evaluations, but did so through BANNER and no longer considered it a priority to obtain high response rates. Data from more recent evaluations is presented in Section 7.

Table 1: Mean responses to the question "Considering everything, how would you rate this teacher?" (5=Excellent, 1=Poor)

Semester	Class	Number Responding	Mean Response (1-5)
Fall 99	Transfer Processes II: Mass	14	4.71
Fall 99	Sophomore Engineering Clinic I	20	4.30
Spring 00	Industrial Process Pathways	5	4.80
Spring 00	Sophomore Engineering Clinic II	26	4.27
Fall 00	Transfer Processes II: Mass	8	5.00
Fall 00	Chemical Process Component Design	13	4.69
Spring 01	Chemical Engineering Thermodynamics	8	4.75
Spring 01	Advanced Process Analysis	12	4.83
Fall 01	Chemical Process Component Design	10	4.60
Fall 01	Equilibrium Staged Operations	17	4.71
Spring 02	Advanced Process Analysis	7	4.86
Spring 02	Chemical Engineering Thermodynamics	15	4.87
Fall 02	Chemical Process Component Design	21	4.76
Fall 02	Equilibrium Staged Operations	13	4.69
Spring 03	Chemical Engineering Thermodynamics	13	4.85
Spring 03	Chemical Reaction Engineering	16	4.81
Fall 03	Equilibrium Staged Operations	16	5.00
Fall 03	Sophomore Engineering Clinic I	71	4.34
Spring 04	Chemical Engineering Thermodynamics	13	4.92
Spring 04	Chemical Reaction Engineering	13	4.92
Fall 04	Sophomore Engineering Clinic I	101	4.06
Fall 04	Advanced Process Analysis	17	5.00
Spring 05	Sophomore Engineering Clinic II	16	4.44

Spring 05	Chemical Engineering Thermodynamics	11	4.91
Fall 05	Freshman Engineering Clinic I	21	4.38
Spring 06	Chemical Plant Design	11	4.90
Fall 06	Sophomore Engineering Clinic I	100	4.24
Spring 07	Chemical Plant Design	16	4.64
Fall 07	Sophomore Engineering Clinic I	98	4.22
Spring 08	Chemical Plant Design	19	4.88
Fall 08	Sophomore Engineering Clinic I	100	4.42
Fall 08	Chemical Engineering Thermodynamics I	24	5.00
Spring 09	Chemical Plant Design	22	4.77
Spring 09	Sophomore Engineering Clinic II	73	4.30
Fall 09	Sophomore Engineering Clinic I	107	4.53
Fall 09	Chemical Engineering Thermodynamics I	20	5.00
Spring 10	Chemical Plant Design	19	4.95
Spring 10	Sophomore Engineering Clinic II	58	4.84
Fall 10	Sophomore Engineering Clinic I	131	4.34
Fall 10	Chemical Engineering Thermodynamics I	26	5.00
Spring 11	Chemical Plant Design	19	4.95
Fall 12	Principles of Chemical Processes I	26	5.00
Fall 12	Chemical Engineering Thermodynamics I	23	5.00
Spring 13	Chemical Reaction Engineering	25	4.96
Spring 13	Chemical Engineering Thermodynamics II	25	4.96

Kevin D. Dahm
CURRICULUM VITA

DEGREES

B.S.	Chemical Engineering	Worcester Polytechnic Institute	1992
Ph.D.	Chemical Engineering (Mathematics Minor)	Massachusetts Institute of Technology	1998

ACADEMIC EXPERIENCE

Sept. 2013 –date	Professor of Chemical Engineering, Rowan University
Sept. 2004 –Aug. 2013	Associate Professor of Chemical Engineering, Rowan University
Aug. 1999 – Aug. 2004	Assistant Professor of Chemical Engineering, Rowan University
Spring 1999	Adjunct Professor of Chemical Engineering, North Carolina A&T State University
Feb. 1998-Dec. 1998	Visiting Postdoctoral Researcher, University of California at Berkeley

HONORS AND AWARDS

2011, 2015 Rowan University Wall of Fame for advising and teaching

2010 ASEE Mid-Atlantic Section Distinguished Teaching Award

2005 *Chemical Engineering Education* William Corcoran Award

2004 ASEE Raymond W. Fahien Award

2003 ASEE Joseph J. Martin Award

2002 ASEE PIC-III Outstanding Paper Award

2002, 2004, 2008, 2011, 2014, 2016 and 2017 Chemical Engineering Department Outstanding Teacher Award

PROFESSIONAL AFFILIATIONS

American Institute of Chemical Engineers (AIChE) 1994-2016

American Society for Engineering Education (ASEE) 1999-date

RESEARCH AND TEACHING INTERESTS

Since joining the faculty at Rowan, Dr. Dahm has supervised undergraduate research projects in the areas of:

1. Novel approaches to solar heating
2. Design and economic analysis of solar thermal systems
3. Investigating the effects of exposure to alcohol and heavy metals on the development of planaria
4. Development of supplemental material for an engineering textbook
5. Development of curricular materials for first and second year engineering courses
6. Identification and removal of sulfur-containing compounds from diesel
7. Mechanical and chemical characterization of polymer binders for asphalt
8. Invention of a new kind of hair dryer
9. Experimental and theoretical study of absorption of palladium on resins
10. Chemical engineering car competition
11. Measuring laser attenuation in fog and ice
12. Developing micromixing and esterification experiments for the undergraduate curriculum
13. Mechanistic modeling of protein folding
14. Use of phase transfer catalysis to recover value-added products from waste streams
15. Development of educational software for engineering economics courses
16. Development of food engineering modules for K-12 outreach
17. Mechanistic modeling of hydrocarbon pyrolysis
18. Combustion of propane in a fluidized bed
19. Conversion of ethane to ethylene in a catalytic membrane reactor
20. Design and construction of a dorm sized air conditioner

Dr. Dahm's primary areas of technical expertise are in chemical kinetics and in developing improved theoretical techniques for analyzing diffuse reflectance data.

Dr. Dahm's primary teaching interests are use of simulation in engineering education, teaching engineering design, and assessment of student learning.

PUBLICATIONS

Books

K. D. Dahm and D. P. Visco, Fundamentals of Chemical Engineering Thermodynamics. Cengage Learning, Inc., 2014.

D. J. Dahm and K. D. Dahm, Interpreting Diffuse Reflectance and Transmittance, NIR Publications, Chichester, UK, 2007.

Book Chapters

K. D. Dahm and D. J. Dahm, "Principles of Diffuse Reflectance Spectroscopy," invited contribution to the forthcoming Fourth Edition of the Handbook of Near-Infrared Analysis. Complete draft currently under review.

D. J. Dahm and K.D. Dahm, "Introduction to the Physics of Light Scattering," invited contribution to the forthcoming Fourth Edition of the Handbook of Near-Infrared Analysis. Complete draft currently under review.

D. J. Dahm and K. D. Dahm, "Discontinuum Theory of Diffuse Reflectance," *Handbook of Vibrational Spectroscopy,* Volume 2, John Wiley & Sons, New York, NY, 2001.

D. J. Dahm and K. D. Dahm, "The Physics of Near-infrared Scattering," *Near-Infrared Technologies in the Agricultural and Food Industries*, 2nd ed., American Association of Cereal Chemists, St. Paul, MN, 2001.

Refereed Journal Articles

C. Bodnar, T. Christiani, K. Dahm and A. Vernengo, "Implementation and Assessment of an Undergraduate Tissue Engineering Laboratory Course," *Education for Chemical Engineers*, 24 (2018).

K. D. Dahm, S. Farrell and R. Ramachandran, "Communication in the Engineering Curriculum: Learning to Write and Writing to Learn," *Journal of Engineering Education Transformations*, 29, 2 (2015).

R. Ramachandran, K. D. Dahm, L.M. Head and J.L. Schmalzel, "Project and Problem Based Learning for Circuits, Systems, VLSI and Digital Signal Processing Courses," *Journal of Engineering Education Transformations*, 28, 3 (2015).

K. Dahm, "Combining the Tasks of Grading Individual Assignments and Assessing Program Outcomes in Project-Based Courses," *Journal of SMET Education,* 15, 1 (2014).

K. Dahm and D. Dahm, "Separating the effect of scatter and absorption using the representative layer," *Journal of Near Infrared Spectroscopy,* 21, 5 (2013).

K. Dahm, W. Riddell, R. Harvey, T. Merrill, and L. Weiss, "Implementing Entrepreneurial Assignments in a Multidisciplinary, Sophomore-Level Design Course," *Advances in Engineering Education,* 5, 3, (2013).

P. Shirodkar, Y. Mehta, A. Nolan, K. Dahm, and R. Dusseau, "Characterization Creep and Recovery Curve of Polymer Modified", Construction and Building Materials, 34 (2012).

J. Vernengo, D. Demiduke, D. O'Connell and K. Dahm, "Two Laboratory Activities for Introducing Undergraduate Students to Biomaterials," *Education for Chemical Engineers,* 7, 1, (2012).

S. Zorn, Y. Mehta, K. Dahm, E. Batten, A. Nolan, and R. Dusseau, "Rheological Properties of the Polymer Modified Bitumen with Emphasis on SBS Polymer and its Microstructure," *ASCE GSP Series (EI Indexed)* (2011).

H. Mark, R. Rubinovitz, D. Heaps, P. Gemperline, D. Dahm and K. Dahm, "Comparison of the use of Volume Fractions with other Measures of Concentration for Quantitative Spectroscopic Calibration Using the Classical Least Squares (CLS) Method," *Applied Spectroscopy*, **64,** 9, (2010).

W. Riddell, J. Courtney, E. Constans, K. Dahm, R. Harvey and P. von Lockette**,** "Making communication matter: integrating instruction, projects and assignments to teach writing and design," *Advances in Engineering Education*, 2, 2 (2010).

D. Sujo-Nava, L. Scodari, C. S. Slater, K. D. Dahm and M. J. Savelski "Retrofit of sour water networks in oil refineries: A case study" *Chemical Engineering and Processing: Process Intensification*, 48, 4 (2009).

K. D. Dahm, J. A. Newell, R. Harvey and H. L. Newell, "The Impact of Structured Writing and Developing Awareness of Learning Preferences on the Performance and Attitudes of Engineering Teams," *Advances in Engineering Education*, 1, 4 (2009).

K. Dahm, W. Riddell, E. Constans, R. Harvey, J. Courtney, and P. von Lockette "Implementing and Assessing the Converging-Diverging Model of Design in a Sequence of Sophomore Projects," *Advances in Engineering Education*, 1, 3 (2009).

B. Lefebvre and K. Dahm, "Competition between student groups in the protein production challenge", *Education for Chemical Engineers,* 4, 1 (2009).

W. Riddell, J. Courtney, E. Constans, K. Dahm, R. Harvey and P. von Lockette, "The Connections Between Engineering Design and Technical Writing in an Integrated Instructional Setting," *Design Principles and Practices,* 2, (2008).

K. D. Dahm and R. P. Hesketh, "Two Experiments for the Introductory Chemical Reaction Engineering Course," *Education for Chemical Engineers,* **3**, 1 (2008).

K. D. Dahm, R. P. Hesketh, M. J. Savelski, "Micromixing Experiments in the Introductory Chemical Reaction Engineering Course," *Chemical Engineering Education*, 39, 2 (2005).

C. Stewart Slater, R. P. Hesketh, J. A. Newell, S. Farrell, Z. Gephardt, M. J. Savelski, K.D. Dahm, B. G. Lefebvre, "ChE at Rowan University," *Chemical Engineering Education*, 39, 2 (2005).

J. A. Newell, K. D. Dahm, R. Harvey and H. L. Newell, "Developing Metacognitive Engineering Teams," *Chemical Engineering Education*, 38, 4 (2004).

K. D. Dahm and D. J. Dahm, "Relation of Representative Layer Theory to Other Theories of Diffuse Reflection, *Journal of Near Infrared Spectroscopy*, 12, 189 (2004).

K. D. Dahm, P. S. Virk, R. Bounaceur, F. Battin-Leclerc, P.M. Marquaire, R. Fournet, E. Daniau, and M. Bouchez, "Experimental and modelling investigation of the thermal decomposition of n-dodecane," *Journal of Analytical and Applied Pyrolysis,* **71** (2004).

J. A. Newell, H. L. Newell, K. D. Dahm, "Rubric Development for Assessment of Undergraduate Research: Evaluating Multidisciplinary Team Projects," *Chemical Engineering Education,* **37,** 3 (2003).

D. J. Dahm and K. D. Dahm, "Illustration of failure of continuum models of diffuse reflectance," *Journal of Near Infrared Spectroscopy,* **11** (2003).

K. D. Dahm, "Interactive Simulation for Teaching Engineering Economics," *Journal of SMET Education,* **4** (2003).

K. D. Dahm, "Process Simulation and McCabe-Thiele Modeling: Specific Roles in the Learning Process," *Chemical Engineering Education,* **37**, 3 (2003).

C. S. Slater, S. Farrell, R. P. Hesketh, M. J. Savelski and K. D. Dahm, "Industrial Membrane Projects in the Chemical Engineering Curriculum," *Chemical Engineering Education,* **36**, 3 (2002).

J. A. Newell, H. Newell and K. D. Dahm, "Rubric Development and Inter-Rater Reliability Issues in Assessing Learning Outcomes," *Chemical Engineering Education*, **36,** 3 (2002).

K. D. Dahm., R. P. Hesketh, and M. J. Savelski "Is Process Simulation Used Effectively in Chemical Engineering Courses?*" Chemical Engineering Education*, **36**, 3 (2002).

D. J. Dahm and K. D. Dahm, "Obtaining Material Absorption Properties from Remission Spectra of Directly Illuminated, Layered Samples" *Journal of Near Infrared Spectroscopy*, **10**, (2002).

K. D. Dahm and J. A. Newell, "Baseball Stadium Design: Teaching Engineering Economics and Technical Communication in a Multi-Disciplinary Setting," *Journal of SMET Education: Innovations and Research*, **2**, (2001).

D. J. Dahm, K. D. Dahm and K. H. Norris, "Test of the Representative Layer Theory of Diffuse Reflectance," *Journal of Near Infrared Spectroscopy,* **8**, (2000).

A. S. Foss, K. R. Guerts, P. J. Goodeve, K. D. Dahm, G. Stephanopoulos, J. Bieszczad, A. Koulouris, "A Phenomena-Oriented Environment for Teaching Process Modeling: Novel Modeling Software and Its Use in Problem Solving," *Chemical Engineering Education,* **33**, 2 (1999).

D. J. Dahm and K. D. Dahm, "Representative Layer Theory for Diffuse Reflectance," *Applied Spectroscopy,* **53**, (1999).

D. J. Dahm and K. D. Dahm, "Bridging the Continuum-Discontinuum Gap in the Theory of Diffuse Reflectance," *Journal of Near Infrared Spectroscopy,* **7,** (1999).

D. J. Dahm and K. D. Dahm, "Math Pretreatment of NIR reflectance data: log (1/R) vs. F(R)," *Journal of Near Infrared Spectroscopy,* **3**, (1995)

CONFERENCE PUBLICATIONS AND PRESENTATIONS

Author or co-author on over 100 conference presentations, over 60 of which were accompanied by refereed proceedings papers. This includes five invited presentations:

Dahm, K. "Obtaining 'Beer's Law' Absorbance for Scattering Samples Using a 'Representative Layer", International Diffuse Reflectance Conference, August 2014, Chambersburg, PA.

Dahm, K. “Introducing Students to Engineering Design,” FOEE Conference, October 2012, Irvine, CA.

Dahm, K. “Chemical Plant Design: Scope, Organization and Evaluation of Semester-Long Projects.” AIChE Annual Conference, November 2010, Salt Lake City, UT.

Dahm, K, “Beer’s Law, Scattering Samples, and Time-of-Flight Spectroscopy,” International Diffuse Reflectance Conference, August 2010, Chambersburg, PA.

K. D. Dahm and D. J. Dahm, “Representative Layer Theory: Describing Absorption by Particulate Samples,” SPIE Symposium, San Diego, CA, August 2008.

WORKSHOPS

K. Dahm, “Practical Assessment Tools for Engineering Education,” Biometrics Education Workshop, Rowan University, Glassboro, NJ, August 2016.

K. D. Dahm, S. Farrell and M. J. Savelski, “SafeZone/Positive Ally Training,” ASEE Annual Conference and Exposition, Indianapolis, IN, June 2014.

Dahm, K., DiBiasio, D. and Hwalek, J., “Tools for Assessment of Engineering Projects, Courses and Programs,” 2012 Chemical Engineering Summer School, July 2012, Bangor, ME.

PATENTS

Murray A. Luftglass, Louis Taschek, Clayton C. Gunheim, and Kevin D. Dahm, “Translucent Plastic Solar Thermal Collector,” United States Patent #9,915,444, awarded to HELIOS PRODUCTS, LLC on March 13, 2018.

Donald J. Dahm and Kevin D. Dahm, “Spectroscopic Analysis Instrument and Method Based on Discontinuum Theory,” U.S. Patent #5,912,730, awarded June 15, 1999.

GRANTS AND CONTRACTS RECEIVED

1. N. Bouaynaya, K. Dahm, J. Moore, R. Nazari, and R. Ramachandran, “Engaging in STEM Education with Big Data Analytics and Technologies: A Rowan-Cove Initiative,” NSF-DUE, September 2016-August 2019, $299,930.
2. K. Dahm, “HELIOS Summer 2016: Testing of Prototype 3-D Solar Collectors,” HELIOS Products, LLC, July-September 2016, $3000.
3. W. Riddell, K. Dahm and J. Everett, “NJDMAVA Water Heater,” NJ Dept. of Military and Veteran Affairs, Jan. 2016-Dec. 2018, $101,927.
4. K. Dahm and W. Riddell, “Design of Three Dimensional Solar Collectors,” HELIOS Products, LLC, May-August 2014, $3825.01

5. R. Ramachandran, S. Chin, K. Dahm, R. Polikar, Y. Tang, "Vertical Integration of Concepts and Laboratory Experiences in Biometrics Across the Four Year Electrical and Computer Engineering Curriculum" NSF-TUES, July 2011-June 2014, $356,654.
6. K. Dahm and W. Riddell, "3-D Solar Cells: Experimental Investigation of Potential Materials of Construction," HELIOS Products, LLC., Jan. 2011-June 2011, $2500.
7. Y. Mehta, K. Dahm, R. Dusseau and A. Nolan**, "**Polymer Modified Binder Technology Transfer Workshop, University Transportation Research Center, March 2011, $5000.
8. K. Dahm, "Optimization of Three-Dimensional Solar Cells," HELIOS Products, LLC, July 2009-December 2010, $10,000.
9. K. Dahm and J. Van Kirk, ""Sterically Hindered Dibenzothiophene (SHDBT) Distribution as a Function of Crude Oil Cut Point"," SUNOCO, June-December 2009, $20,000.
10. Y. Mehta, K. Dahm and R. Dusseau, "Correlation between Multiple Stress Creep Recovery (MSCR) Results and Polymer Modification of Binder," NJDOT, July 2009-Sept. 2011, $380,000.
11. K. Dahm and J. VanKirk, "Determination of Sterically Hindered Dibenzothiphene (SHDBT) Distribution in Ultra Low Sulfur Diesel (ULSD) Fuel Blending Stocks," SUNOCO, Jan.-May 2009, $15,000.
12. P. von Lockette and K. D. Dahm, "Investigation of Production Methods of Dichromate Gel (DCG) Holograms," RL Associates, Sept. 2008-May 2009, $5,400.
13. P. von Lockette and K. D. Dahm, "Formation of Atmospheric Ice Crystals," RL Associates, Sept. 2007-May 2008, $5,000.
14. K. D. Dahm, "Three-Dimensional Solar Cells," Helios Products, LLC, Sept. 2007-May 2009, $13,386.
15. K. D. Dahm, "Disseminating EIE to In-Service Teachers in South Jersey," Stevens Institute of Technology, Feb. 2007-July 2008, $5000.
16. P. von Lockette and K. D. Dahm, "Development of a Water Vapor Chamber for Laser Attenuation Experiments," RL Associates, Sept. 2005-May 2006, $5,000.
17. K. D. Dahm, K. Hollar, R. Harvey, and J. A. Newell, "Development of Metacognitive Engineering Teams through Selected Cognitive Writing Exercises and Understanding Learning Preferences," NSF Engineering Education, July 2004-May 2006, $130,773.
18. K. D. Dahm and J. A. Newell, "Incorporating Emerging Chemical Engineering Technologies into K-12 Outreach," Rowan University Separately Budgeted Research program, July 2004-Jume 2005, $4000.00.
19. R. P. Hesketh, K. D. Dahm, S. Farrell, M. J. Savelski, and C. S. Slater, "Real Chemical Reactions Vertically Integrated Throughout the Curriculum," NSF-CCLI, June 2001-May 2004, $119,714.
20. L. E. Stephans, M. Childs, K. D. Dahm, J. A. Newell, C. F. Yang, "Acquisition of Funds for NMR Instrumentation to Enhance Undergraduate Research and Course Instruction at Two Institutions in South Jersey," NSF-MRI, Jan. 2002-Dec. 2004, $280,140.
21. S. Chin, J. C. Chen, K. D. Dahm, L. M. Head, J. W. Everett, G. Hristescu, "Scholarships for Enhancing South Jersey's Technological Work Force", NSF, Jan. 2002-Dec. 2005, $400,000.
22. K. D. Dahm and R. P. Ramachandran, "Interactive Simulation for Teaching Engineering Economics," NSF-CCLI, May 2002-April 2004, $74,914.
23. K. D. Dahm, R. P. Hesketh, M. S. Savelski and C. S. Slater, "Establishing a Joint Project With Rowan University College of Engineering and PTC Value Recovery," PTC Value Recovery, Sept. 2001-Sept. 2002, $10,000.
24. K. D. Dahm, "Pyrolysis of Light Unsaturated Hydrocarbons," Rowan University Separately Budgeted Research program, July 2001-Jume 2002, $3452.50.

INSTITUTIONAL AND PROFESSIONAL SERVICE

Professional Community

- Organizing committee for 2017 Chemical Engineering Summer School
- Program Chair, Chemical Engineering Division of ASEE, 2015
- Associate editor for *Advances in Engineering Education,* Jan. 2013-date
- Area editor for *The Engineering Economist*, 2005-2016
- Editorial board for *Energy & Fuels,* Oct. 2008-Sept. 2011
- Director, Chemical Engineering Division of ASEE, 2005-2007
- Awards Chair, Chemical Engineering Division of ASEE, 2007-2008
- Newsletter Editor, Engineering Economy Division of ASEE, 2006-2007
- Secretary/Treasurer, Engineering Economy Division of ASEE, 2007-2008
- Program Chair, Engineering Economy Division of ASEE, 2008-2009
- Chair, Engineering Economy Division of ASEE, 2009-2010
- Eugene L. Grant Award Selection Committee, 2007-2011
- Assisted in creation of ASEE National Engineering Economy Teaching Excellence Award and served on the committee to select its inaugural winner.

Rowan University

- Chemical Engineering Department Assessment Coordinator (F03-S11, F17-date)
- Primary author of department self-study for 2006 and 2018 ABET Accreditation visits, assisted in preparation of self-study for 2000 and 2012 ABET Accreditation visits
- Chair of the Senate Tenure and Recontracting Committee (F17-date)
- Chair of Senate Curriculum Committee (F06-S08)
- Chair of College Curriculum Committee (F01 – S03, F04-S06)
- Chair of College Promotion Committee (2014, 2016, 2018)
- Chemical Engineering Senator (F05-S09, F18-date)
- Associate Chair of Chemical Engineering (F10-S11)
- Served on University Tenure and Recontracting (F15-S16,F17-date), Curriculum (F01-S08), Bookstore (F01-S03) and ad-hoc Scheduling (F00-S02, S04) committees
- Sophomore Engineering Clinic Coordinator (F03, F08-S10)
- Developed and maintained Chemical Engineering Department web pages (S00-S03).
- Advisor, student chapter of AIChE (F01-S05, S09-S11, F13, and F14-F17)
- Advisor, Alpha Phi Omega (S02-date)

North Carolina A&T State University

- Developed Chemical Engineering Department web pages.

- Assisted in preparation of assessment instruments for ABET self-study.

PROFESSIONAL AND DEVELOPMENT ACTIVITIES

- Participant and presenter at every national ASEE Annual Conference and Exposition since 2000, as well as several regional conferences.
- Participated in first Asynchronous Learning Institute at Rowan University, Summer 2000.
- Participated in Rich Felder's Effective Teaching Workshop, May 2000.
- Attended ASEE Chemical Engineering Summer School, Boulder, CO, July 2002.
- Became certified Let Me Learn consultant, May 2006.

- Attended Project Lead the Way Summer Training Institute, June 2007 and June 2009.
- Participated in Engineering STI Preparation sessions in April 2008 and April 2009 in Rochester, NY.
- Presented workshop in ASEE Chemical Engineering Summer School, Orono, ME, July 2012
- Participated in Research in Engineering Education Symposium, July 2015

OTHER ACCOMPLISHMENTS

Journal Review Service:

Reviewed Articles for *Applied Spectroscopy, Journal of Near Infrared Spectroscopy, Energy & Fuels*, *Industrial and Engineering Chemistry Research, Chemical Engineering Education, Education for Chemical Engineers, Advances in Engineering Education, Journal of STEM Education, Engineering Economist* and *Combustion and Flame* as well as numerous AIChE, ASEE and FIE sessions.

Teaching:

New Courses Developed:

Industrial Process Pathways

Advanced Process Analysis

Courses Taught:

Freshman Engineering Clinic I

Sophomore Engineering Clinic I

Sophomore Engineering Clinic II

Principles of Chemical Processes I

Equilibrium Staged Operations (previously titled Transfer Processes II- Mass)

Chemical Reaction Engineering

Chemical Engineering Thermodynamics I

Chemical Engineering Thermodynamics II

Chemical Process Component Design

Industrial Process Pathways

Advanced Process Analysis

Chemical Plant Design

10. Biosketch

Kevin Dahm is a Professor of Chemical Engineering at Rowan University. He earned his B.S. from Worcester Polytechnic Institute (92) and his Ph.D. from Massachusetts Institute of Technology (98). He has published two books, "Fundamentals of Chemical Engineering Thermodynamics," with Donald Visco, and "Interpreting Diffuse Reflectance and Transmittance," with his father Donald Dahm. He has also published papers on effective use of simulation in engineering, teaching design and engineering economics, and assessment of student learning. He has been a member of the American Society for Engineering Education (ASEE) since 1999 and has received the PIC-III Best Paper Award, the Joseph J. Martin Award, the Raymond W. Fahien Award, the Corcoran Award and the Middle Atlantic Section Outstanding Teaching Award from ASEE.