

Ivelisse Ortiz-Hernandez, PhD

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Lexington, South Carolina 29073
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ivelisse77@yahoo.com

EDUCATION:

University of South Carolina, Columbia, South Carolina
Doctorate in Philosophy in Chemical Engineering, 2006

University of Puerto Rico, Mayagüez, Puerto Rico
Bachelor of Science in Chemical Engineering, 2000

SUMMARY OF QUALIFICATIONS:

Language Proficiency: Spanish and English.

Experience using the following software: Matlab, Mathcad, Maple, and Microsoft Office.

Analytical Techniques: Fourier Transfer Infrared Spectroscopy (Expert), Dispersive Infrared Spectroscopy, UV-Visible, Gas Chromatography, Fluorescence Spectroscopy, Atomic Absorption spectroscopy, Ion Chromatography, Amperometric Titrations.

Management Assignments: Program Coordinator for Chemical Technology. Managed a budget of approximately \$12,000. Managed and maintained the Chemical Technology and Alternate Energy laboratories.

Teaching Assignments: Chemistry, Fuel Cell Technology, Introduction to Engineering, Thermodynamics, Introduction to Computer Environment, Introduction to Analytical Chemistry I, Introduction to Analytical Chemistry II, Engineering Chemistry, Engineering Project Management and Nuclear Chemistry.

PROFESIONAL APPOINTMENTS:

2008-present: Academic Program Director for Chemical Technology, Midlands Technical College, Columbia, South Carolina.

2006-present: Instructor, Engineering Transfer and Technology, Midlands Technical College, Columbia, South Carolina.

2008 Summer: Post-Doctoral Researcher under the supervision of Dr. Christopher T. Williams, Chemical Engineering, Columbia, South Carolina, University of South Carolina.

2000-2006: Graduate Research Assistant, Chemical Engineering, Columbia, South Carolina, University of South Carolina.

2005: Internship, Westinghouse, Columbia, South Carolina

2000: Undergraduate Research Assistant, Chemical Engineering, University of Puerto Rico, Advisor: Julio Briano.

1999: Undergraduate Research Assistant, Chemical Engineering, University of Puerto Rico, Advisor: Guillermo Colón.

- 1999: MURF-SURF Internship, Chemical Engineering, California Institute of Technology, Advisor: George R. Gavalas.
- 1998: REU Internship, Chemical Engineering, University of South Carolina, Advisor: Michael D. Amiridis.

PUBLICATIONS:

1. Chandler, Thomas C.; and Ortiz-Hernandez, Ivelisse; "Teaching Fuel Cell Technology an Embedded Curriculum Approach," *Proceedings of the National Hydrogen Association Conference*, **March 2009**, Columbia, SC.
2. Ortiz-Hernandez, Ivelisse; and Chandler, Thomas C.; "Fabricating and Testing an MEA in an Undergraduate Student Laboratory," *Proceedings of the National Hydrogen Association Conference*, **March 2009**, Columbia, SC
3. *In-Situ* Investigation of Solid-Liquid Catalytic Interfaces by Attenuated Total Reflection Infrared Spectroscopy," I. Ortiz-Hernandez and C. T. Williams, *Langmuir*, **2003**, *19*, 2956-2962.
4. "Multivariate Analysis of ATR-IR Spectroscopic Data: Applications to the Solid-Liquid Catalytic Interface," I. Ortiz-Hernandez, D. J. Owens, M. R. Strunk and C. T. Williams, *Langmuir*, **2006**, *22*, 2629-2639.
5. "In-situ ATR-IR investigation of nitrile absorption and hydrogenation on Pt/Al₂O₃ in hexane", I. Ortiz-Hernandez and C.T. Williams, *Langmuir*, **2007**, *23* (6), 3172 -3178.

RESEARCH WORK:

1. My research work as a graduate student involved the development of the ATR-IR technique for the study of solid catalyst- liquid interfaces.
 - a. The study of solid-liquid catalytic interfaces under reaction conditions by using Attenuated Total Reflection Infrared (ATR-IR) Spectroscopy. This was achieved by the deposition of thin film of the catalyst in a total internal reflection waveguide.
 - b. Probe molecules (e.g., CO adsorption using both water and ethanol as solvents, and formaldehyde dissociation using water as a solvent) were tested and the results were reported in publication # 1.
 - c. In the last two publications listed, studied the adsorption and hydrogenation of acetonitrile and butyronitrile on 5% Pt/Al₂O₃ in the presence and absence of nitrile in solution.
 - d. The data was analyzed using multivariate analysis, which allowed baseline correction and shape subtraction to be performed. We were able to detect surface peaks corresponding to C-N adsorbed on platinum and additional information regarding to surface interactions.
2. The research assignment for the summer 2008 included the enantioselective modification of Pt/Al₂O₃. The goal was to study the surface of the catalyst prior and after modification of the catalyst. Preliminary catalyst testing was performed by testing the adsorption and hydrogenation of 2-methyl-2-pentanoic acid using 1,2-dioxane as the solvent. The adsorption on the cinchonidine modified catalyst was also tested.
3. Developed curriculum for Chemical Technology, Alternate Energy and Nuclear Chemistry. Also developed laboratory exercises for those courses. As part of the program management, worked in the development and establishment of new curriculum based on employer needs.

SUMMARY OF PRESENTATIONS:

1. Poster – "In-Situ Investigation of the Pt/Al₂O₃/Solution Interface Using Attenuated Total Reflection Infrared Spectroscopy," I. Ortiz-Hernández (presenter) and C. T. Williams, AIChE National Meeting, Reno, Nevada, November 2001.
2. Poster – "In-Situ Investigation of the Pt/Al₂O₃/Solution Interface Using Attenuated Total Reflection Infrared Spectroscopy," I. Ortiz-Hernández (presenter) and C. T. Williams, ACS National Meeting, Orlando, FL, April 2002.
3. Talk – "In-Situ Investigation of the Pt/Al₂O₃/Solution Interface using Attenuated Total Reflection Infrared Spectroscopy," I. Ortiz-Hernández (presenter) and C. T. Williams, Southeastern Catalysis Society Meeting, Asheville, NC, September 2002.
4. Talk – "In-Situ Investigation of the Pt/Al₂O₃/Solution Interface using Attenuated Total Reflection Infrared Spectroscopy," I. Ortiz-Hernández (presenter) and C. T. Williams, AIChE National Meeting, Indianapolis, IN, November 2002.
5. Poster – "In-Situ Investigation of Solid-Liquid Catalytic Interfaces by Attenuated Total Reflection Infrared Spectroscopy," I. Ortiz-Hernández (presenter) and C. T. Williams, NACS National Meeting, Cancún, Mexico, June 2003.
6. Talk – "In-Situ Investigation of Solid-Liquid Catalytic Interfaces by Attenuated Total Reflection Infrared Spectroscopy," I. Ortiz-Hernández (presenter) and C. T. Williams, ACS Southeastern Division, Atlanta, GA, June 2003.
7. Talk – "In-Situ ATR-IR and SFS Investigation of Nitrile Adsorption and Hydrogenation on Pt/Al₂O₃ in the Liquid Phase," I. Ortiz-Hernández (presenter) and C. T. Williams, AIChE National Meeting, Austin, Texas, November 2004.
8. Talk – "In-Situ ATR-IR and SFS Investigation of Nitrile Adsorption and Hydrogenation on Pt/Al₂O₃ in the Liquid Phase," I. Ortiz-Hernández (presenter) and C. T. Williams, NACS, Philadelphia, PA, May 2005.

SYNERGISTIC ACTIVITIES:

Participates in Midlands Education and Business Alliance (MEBA) Field Studies: MEBA Field Studies provide an opportunity for students to learn about a specific career cluster. Students visit a business or industry and learn from professionals the skill sets, education requirements and knowledge important to the occupation, as well as workforce trends and development. A field study also serves as an opportunity for students to network with business and industry and establish opportunities for mentoring, shadowing and other extended learning opportunities.

Development of Engineering Technology Curriculum: Serves as the Chemical Technology Program coordinator at Midlands Technical College. Developed the program flowchart and manages four engineering technologies certificates including Chemical Technology, Principles of Alternate Energy, Environmental Systems Technology and Chemical Process Technology. Manages the budget and courses related to Chemical Technology, including course scheduling. Also developed new courses including Analytical Chemistry and Fuel Cell Technology.

Promoting of Chemical Technology Careers: Organize Informational Sessions in behalf of local industries to promote careers in this technology. Also promotes the program in career days and career fairs at middle school, high school and college. Recipient of the 2011 NISOD Excellence Award.

Teaching Philosophy

Ivelisse Ortiz-Hernandez, PhD

Awards: NISOD Excellence Teaching Award, 2011 and Dunbar Distinguished Lecturer Award, 2013

Over the last 11 years, I have learned that teaching is not just about the content of a book, but about providing students with the tools they need to succeed. To be an effective teacher, it is necessary to know the audience and to adjust the level of the course accordingly. My students have come from diverse socio-economic backgrounds with a broad age range. They have included the traditional--straight out of high school to mothers and fathers looking to improve their future. This diversity makes adaptation of teaching necessary to ensure that all students can get the most out of the classes.

When talking to an audience, we need to be able to gauge their level and adjust to a level that they can understand. For example, during outreach events with middle school-aged children we have to adjust to a Physical Science level, and when dealing with seniors in high school we can talk to them at a higher level (usually I verify if they have a background in Chemistry and Pre-engineering). As we talk to prospective students, we need to talk to them in terms that they can understand. For example, a batch reactor can be described in terms of a kettle, the reactants coming in (tea and water) are transformed into a new product. When introducing the concepts on distillation and explaining the operation of the distillation system, we can start with a joke comparing the system to a moonshine still. This usually lightens the mood before we start introducing the concepts. This same concept can be incorporated into the classroom as warranted.

Students need to be encouraged to be lifelong learners. During class I try to encourage question and answer sessions to measure the progress made by the class. It is important that they understand not just the "how," but also the "why." They need to be encouraged to be thirsty for information, and not to accept everything at face value.

Engineers are problem solvers, and we need to make sure our graduates have the tools they need to succeed. Chemical engineering is a multi-disciplinary field that combines concepts in applied math, science, and engineering to solve complex problems. It is important that the

student learns how to apply the concepts learned in those courses so as to solve real-life problems.

Working in the engineering field, graduates are expected to be good team players. These skills must be encouraged, thus during class time it is important to emphasize teamwork. Teamwork can be fostered by dividing the students into teams, giving different scenarios to each team, and having the students present their outcomes to the class. By doing this, they practice teamwork and public speaking skills.

In courses like Introduction to Engineering, teamwork is promoted throughout either by assigning problems to be solved in teams or by assigning group projects with defined constraints. Students are required to use the steps for engineering design to solve the problem and present the results to their peers. This is followed up with a test to verify that the design meets the specifications.

A good instructor has to be accessible and approachable. It is important for students to feel comfortable asking questions and in receiving the feedback that they need to succeed. As part of my teaching philosophy, I try to provide students with ample opportunities to ask questions outside of class time. I also like to set up open lab hours where the students are welcome to come and ask their questions in a relaxed, informal environment.

To improve retention, it is important to identify at-risk students, and try to ensure that they feel comfortable in approaching faculty. This can be achieved by encouraging them to take advantage of office hours. It is also necessary to ensure that students feel comfortable during their visits to the office.

A good instructor has a broad background, can explain concepts at different levels, and is able to adapt. It is important to show how the concepts learned in class relate to concepts learned in previous courses. By connecting this knowledge, it makes it easier for the students to understand how to apply these concepts as they move towards their engineering careers.

It is essential to use available resources to promote a healthy learning environment. As part of lecture, I combine PowerPoint presentations, illustrations, and supplemental learning by solving problems using the projector or the board. Showing the progression of the problem by hand helps the student to understand the steps more easily, and it also allows me to see if the audience needs additional reinforcement.

As an instructor, I strive for student success. I work hard to motivate my students, provide them with feedback, listen to them when they need me, and give them advice when asked. I do my best to be there for them from the beginning until they start their first job in their field. This is evident by the success of my Chemical Technology students in industry. My placement rate is above 90 percent. Graduates of my program are excelling as laboratory technicians, reliability technicians, process operators, and research and development technicians. Many of them have even been able to move into management positions.

Teaching has allowed me to shape the future of many individuals that were struggling to provide for themselves and their families. It has also allowed me to provide employers with quality technicians that are easily trained and can cross into other fields.

Courses that I enjoy include:

ECHE 101 - Introduction to Chemical Engineering: I developed the Introduction to Engineering course at MTC in my early years and have been teaching it on a regular basis as needed. The course covers unit conversions, dimensional analysis with equations involved, problem solving and the steps for a successful Engineering Design, and also introduces the Code of Ethics. After the applied mathematics part is completed we introduce the use of Excel and Matlab to solve mathematical problems. As part of the course, the students are expected to complete a group project with a given set of constraints. In the project they have to submit progress reports, a final report and a PowerPoint presentation. The design is tested to see if they were successful in completing the project.

ECHE 300 - Chemical Process Principles: We have taught this course at Midlands Tech a few times. I am willing to teach the course following the same format that has been used over the years. To ensure success I will probably schedule Question and Answering sessions outside of class to ensure that they can grasp the concepts.

ECHE 310 - Chemical Thermodynamics: I have taught Engineering Thermodynamics at Tech and still have all my notes for the course. I believe I should be able to adapt my notes to cover some of the Chemical Thermodynamics concepts. The course I taught was EGR 266 that covers the Mechanical Thermodynamics aspects, but we still talk about gases and deviations from ideal behavior.

Unit Operations lab (the first one): At MTC, we teach a Chemical Process course that is very similar to the UO lab, but it has lecture. In the UO lab, I would add additional hands-on exercises to ensure that the students understand how to install fittings, how valves work, part selection and navigating the purchasing system. I believe that students also need to be exposed to troubleshooting.

Potential Electives: Applied Engineering Materials, Applications of Analytical Instrumentation.

Courses taught at Midlands Technical College:

Fuel Cells: Fuel cell related courses introducing the principles of fuel cells and related systems. In the last course in a sequence of three courses, the students worked on a project where they used a complete fuel cell system to adapt a golf cart to operate as a hybrid system.

Engineering Chemistry: This is a course that can be very useful as a technical elective. Topics in this course include the following: Water Chemistry, Introduction to Organic Chemistry, Introduction to Polymer Chemistry, Fuels and Energy Production, Introduction to Electrochemistry and Corrosion. This is a survey course that provides an overview of each of those topics and teaches students how to solve basic calculations like Hardness, Alkalinity, Potential difference, and also gives them a theoretical background at an algebra math level.

Introduction to Engineering: (Described above)

Nuclear Chemistry: This course starts with a review in Chemistry. The content includes: Basic Chemistry, Corrosion in a Nuclear Plant, Nuclear Plant Primary and Secondary Systems Chemistry, Demineralization and Quality Control. The course is a lecture-lab course that allows the student to gain hands on experience while learning the concepts.

Methods in Analytical Chemistry I: This course involves the study of applied chemistry with industrial applications.

Methods in Analytical Chemistry II: The main focus of this course is analytical instrumentation. The students learn the basics about the operation of UV-VIS spectrophotometers, AA Spectroscopy, FTIR, Dispersive IR, Gas Chromatography, Ion Chromatography, and HPLC. This includes how the instrument works, troubleshooting, and data analysis. Each topic covered is coupled with a laboratory experience that closely relates to the topic. Students learn how to use state-of-the-art equipment and gain real life hands on experience that prepares them for the

workforce. The results of the lab are presented in a formal laboratory notebook that is checked during each lab period for currency and witnessed.

Project Management: The main goal of this course is to teach the roles of a project manager and each of the team members. We go into detail in the steps that must be followed for a successful project outcome. The course concludes with a final project where students work as a team to complete a specified goal. This project is coupled with a technical report, a presentation, and testing.

General Chemistry I and II: I have taught both general chemistry courses. We have a chemistry course that we teach specifically for our engineering technology students. The laboratory portion is different than the transfer version because the focus is to ensure that we foment hands on skills, and make sure that our students know how to apply those concepts to real-life problems.

Dr. Thomas C. Chandler, Chair
Engineering Technology
Midlands Technical College
June 21, 2017

Dr. John Weidner, Department Chair
Department of Chemical Engineering
University of South Carolina

Dear Dr. Weidner :

I have seen the notice placed on the USC Engineering Website regarding the hire of a chemical engineering instructor, and I would like to recommend an employee of mine, Dr. Ivelisse Ortiz-Hernandez. Ivelisse came to work at Midlands Tech at the end of 2006 and was faced with the daunting task of building a program in Chemical Technology from scratch. There were no labs, no equipment or any general teaching facilities available at the College and essentially no curriculum that met the needs of local industry. During the preceding year, MTC had established that local industry needed chemical technologists and a vast number of students would eventually have to be trained in nuclear chemistry for the Engineering Technology Department to be certified by the Academy of Nuclear Training. At the same time Fuel Cell South and other organizations were telling the world that Columbia could be the focus of a significant fuel cell industry. Technicians would be needed if that effort were to ever get off the ground. On a different front, the wide bandgap semiconductor-based companies in Columbia (A spin off of USC research efforts) and other industries desperately needed chemical technicians and materials technologists with serious chemical technology background. The need was clearly there, but there was no money, no facilities, no curriculum, just Ivelisse.

Dr. Ortiz developed a comprehensive curriculum, obtained grant money to fund her labs, recruited students, and developed the necessary relationships with local industry leaders. Her efforts helped make it possible for MTC to get certified in the Nuclear Uniform Curriculum Program and ultimately become a partner in the *Regional Center for Nuclear Training and Education*, an NSF funded program of national significance. The curriculum she developed also had a significant impact on the local pharmacology, waste water treatment, solid state electronics, and the paper and materials processing industries. She now has employers from outside our service area seeking her graduates. No one else in the Engineering Technology Department can make that claim.

Dr. Ortiz has been the driving force behind all of our recent recruiting efforts. Many faculty do not participate in these efforts, but Dr. Ortiz can always be counted on to make the sacrifice, invite visitors to her labs, and push the outreach efforts to the limit. In 2016 Ivelisse with the assistance of her Chemical Technology faculty visited 70 chemistry and mathematics classes to present the Chemical Technology (CHT) program to "undecided" students and other who were contemplating a change of major. The results were almost immediate. The CHT enrollment increased significantly the next

semester. Dr. Ortiz is a regular participant in outreach efforts sponsored by MEBA and Career Fairs (three this year so far) sponsored by area high schools. The most recent effort was the Saturday "one-stop" advisement and registration day conducted by MTC. Ivelisse was one of only a few faculty that gave up their Saturday to help the school and the students get off to a proper start. Dr. Ortiz did all of this while planning and promoting her program for conversion to a recognized Associate Degree program. To do this she had to form an advisory board and conduct a DACUM to verify the efficacy of her curriculum. The response from the students and the local business community was very positive, and as a bonus, businesses well outside the MTC service area volunteered to help. This kind of enthusiasm can be attributed to both business demand and to Dr. Ortiz efforts. She is very good at this, and she seems to enjoy the recruiting and the community interaction.

Clearly, Ivelisse is a leader and an excellent planner and program manager, but her ability as a teacher cannot be overlooked. She is well versed in her field and is always expanding her knowledge. She and her colleagues now teach freshman chemistry, engineering (applied) chemistry, and instrument based analysis as well as traditional wet-chemistry, process control, and of course, the chemical engineering transfer classes. Dr. Ortiz has taught all of these courses as well as the labs and does an excellent job. She is dedicated to making her students successful. She conducts independent study courses and help-sessions to assist "at risk" students, and she is always ready to take on new efforts in the interest of improving student performance, retention, and employability. One of the most common comments seen on her student evaluations is "her ability to adapt her teaching to the level and ability of the student." Every student gets her attention, even those who have difficulty with the subject. The Chair's evaluation of her teaching has consistently been excellent. In the last ten years Dr. Ortiz has been the recipient of the *NISOD Excellence in Teaching Award*, and was the first engineering technology faculty (ever) to receive the *Dunbar Thompkins Distinguished Lecturer Award*.

Well, I could go on-and-on about Dr. Ivelisse Ortiz. It is a pleasure to have a faculty person who works hard and genuinely cares about her students. She has done an outstanding job. The Department will not be the same without Ivelisse Ortiz, but she has her reasons for seeking other work, and the Chair is glad to have worked with her for the last ten years. As the Chair and her supervisor, I can say that she will be an excellent choice for the job you have posted.

Regards,



Dr. Thomas C. Chandler, Chair
Engineering Technology
Midlands Technical College

June 21, 2017

The University of South Carolina
Department of Chemical Engineering
Swearingen Engineering Center
Room 2C13
301 Main Street
Columbia, SC 29208

Attn.: Dr. John Weidner, Department Chair

Re: Dr. Ivelisse Ortiz-Hernandez

Dear Dr. Weidner:

I had the privilege of working alongside Dr. Ortiz-Hernandez for five years (2010-2015) while I was a Program Coordinator and Instructor for the Midlands Technical College Engineering Department. She is currently the Program Coordinator for Chemical Technology and Transfer there, and teaches both technology- and transfer-level courses.

One of the best things each of the students in the advanced Chemical Processes course was required to do was to select and develop a pertinent topic for a poster session presentation at the end of each semester. These presentations were given to the Engineering faculty in a "round robin" format. Students were required to answer questions from the faculty. The faculty members then evaluated each student in writing as part of their course grade. Having spent 34 years in Engineering and in Operations in the paper industry prior to my time at Midlands Tech, I know that employers consider such experience valuable, which is the reason Dr. Ortiz-Hernandez implemented it.

Many times, her students were enrolled in classes I taught, so I had the opportunity to judge the students' abilities for myself. As academic advisors, Dr. Ortiz-Hernandez and I would advise each other's students. Also, we worked to ensure that teaching objectives for each of our programs were covered in the other's curriculum. In general, I found her students were often a cut above the average student.

I had occasion to sit through some of her lectures. There is no doubt that she knows her subjects, be it alternate energy, chemistry, materials, or industrial process analysis. I substituted as instructor for her at times, and found that her labs were carefully constructed, with clear expectations spelled out up front. I have seen her create courses from scratch, prepare them for state level approvals, and meld them seamlessly as new tools into her curriculum once approved. She has developed, equipped and now oversees several advanced analytical laboratories at Midlands Tech.

Dr. Ortiz-Hernandez spent many hours, even days, on the recruiting trail to middle and high schools in our designated areas of SC. I know because I often was there with her,

explaining the “drinking bird,” or boiling ice water inside a bell jar. Thoughts of studying Chemical Engineering can intimidate young students, but Dr. Ortiz-Hernandez sought to allay those fears, making the subject fun in her recruiting trips.

I have seen Dr. Ortiz-Hernandez spend many hours with individual students, encouraging and exhorting them to do their best, helping them understand difficult concepts when they got “stuck” on a difficult one. She knows departmental and college procedures, and schooled me on many of them when I first arrived. She has always been a great help to me.

Dr. Ortiz-Hernandez has always been willing to participate in department committees, particularly ones targeting improvements. She participated heavily in preparing for and participating in our SACS reaccreditation several years ago. She has been unfailingly energetic in these committees.

She always puts the students’ best long-term interests in the forefront. She is assertive, knowledgeable and personable. She is quick to grasp, and is flexible and imaginative in solving problems, be they procedural, personnel, academic, or technical. She has a high energy level, and seeks to put that to work for the benefit of the Engineering Department and for her Program.

If you have questions or would like to discuss my comments, please feel free to contact me. Thank you.

Sincerely,

R. C. Hurst, PE
117 Stonegate Drive
Columbia, SC 29223
rick.hurst5@gmail.com

Dr. John Weidner
Professor, Chemical Engineering
Swearingen Engineering Center
301 Main Street
Columbia, SC 29208

Dear Dr. Weidner,

It is my pleasure to recommend Dr. Ivelisse Ortiz-Hernandez for the Chemical and Biomedical Engineering Instructor position at the University of South Carolina.

I believe I am uniquely qualified to offer a recommendation for Dr. Ortiz, as I have been a student of hers, and am currently the supervisor of several of her graduates.

As the head of the Chemical Engineering Technology program at Midlands Technical College, Dr. Ortiz designed an innovative curriculum that was targeted at preparing students for work in industrial analytical laboratories. The graduates from her program show an exceptional grasp of analytical techniques and theory, and, without exception, have quickly become leaders among their peers in our laboratory. As a hiring manager, I know that students from Dr. Ortiz's program are more than capable of performing any analytical process we need, and will have an understanding of the industrial chemical processes we support.

When I was a student of Dr. Ortiz's, I saw first-hand that she cares deeply about the success of her students. She was always willing to explore material more deeply with her students to foster greater understanding, and managed to tie every course objective back to real-world application in industry. She was also a key advisor to her students in making academic and career decisions as they approached graduation.

I can, without hesitation, say that Dr. Ortiz would be an excellent addition to the Chemical Engineering Department at the University of South Carolina. She is a dedicated and effective educator, and an all-around great person to work with.

Please feel free to contact me at 803-647-1859 if you should like to discuss Dr. Ortiz's qualifications and experience further. I would be happy to expand on my recommendation.

Sincerely,

Adam Penny
Manager, Analytical Services
Westinghouse Electric Company

Donna Allison
136 Castlewood Lane,
Elgin, South Carolina 29045
June 20, 2017

Dr. John Weidner
Professor, Chemical Engineering
Swearingen Engineering Center
301 Main Street
Columbia, SC 29208

Dear Dr. John Weidner,

I am writing on behalf of Dr. Ivelisse Ortiz-Hernandez regarding the Full time instructor position at USC. I have known Dr. Ortiz-Hernandez for four years. I have interacted with her extensively in her capacity as Academic Program Coordinator for the Chemical Technology program at Midlands Technical College. I have taken several courses taught by Dr. Ortiz-Hernandez. I have come to know her very well, and therefore can comment on some aspects of her teaching.

Dr. Ortiz-Hernandez is a caring and hard-working instructor who has the ability to effectively manage a classroom by providing just the right amount of structure yet allowing the students some independence. She does an amazing job making difficult concepts easily understandable. She always shows a genuine concern and commitment to her students' success. Despite her busy schedule, Dr. Ortiz-Hernandez balances her time, so she can help anyone who needs assistance.

I am personally benefitting from taking Nuclear Plant Chemistry and Methods in Analytical Chemistry taught by Dr. Ortiz-Hernandez. I utilize the knowledge and experience I gained in chemical preparation, data collection, quality control, laboratory equipment operation, and analytical techniques at work every day. As a Senior Laboratory Technician at Savannah River National Laboratory, I apply the analytical and critical thinking skills to evaluate not only the results of experiments but also the procedures used to obtain them.

With her relentless motivation and her knowledge of Chemical Engineering, Dr. Ortiz-Hernandez would bring a wealth of knowledge and skills to the University of South Carolina, Chemical Engineering Department. I know she would be an excellent fit for your organization. Should you have any further questions regarding my experience with or opinion of Dr. Ortiz-Hernandez, please feel free to contact me at the above address.

Sincerely,

Donna Allison