

January 27, 2015

CETL, Junior Faculty Teaching Award
Nomination of Dr. Margaret Kosal

Dear Selection Committee:

I am pleased to nominate Assistant Professor Margaret (Maggie) Kosal for the Georgia Tech Junior Faculty Teaching Award. As you will see from the attached letters and supporting material, Dr. Kosal has emerged as a teacher displaying outstanding engagement with her students in the classroom and in the various research projects in which she has mentored them. I firmly believe that leadership in education starts with a genuine joy in enabling students to engage actively in close examination of a subject. Dr. Kosal's love of teaching and her enthusiasm in her teaching have proven infectious. Her mentorship of undergraduate students has inspired them and given them in the various research projects some real world examples to understand.

Dr. Kosal has previously been recognized for her leadership in undergraduate research – but such engagement by her students is a result of her excellence in her teaching. As demonstrated by her student evaluations with semester mean scores over the past three years ranging from 4.6 to 4.93, her students find her approach one that brings subject matter to life in the classroom and in the research. She has encouraged her students in her teaching to pursue new interdisciplinary areas of research and to develop new skills applicable to both the academic and policy worlds, as well as expanding their knowledge and, in many instances, affecting their career choices.

One of the key characteristics of Dr. Kosal's teaching is to enable her students to understand the context in which technology and policy choices affect the real world. Her teaching empowers her undergraduate students to understand the interactive causal, intervening, and determinant roles at play among science, technology, and policy that are necessary for solving the issues of today and in the future. Comments from her students in their evaluations and letters make note of this – particularly from those who are majoring in life sciences and engineering disciplines. In encouraging her students to explore, understand, and explain the multi-fold connections between technology and policy, Dr. Kosal is developing in her students the capacity to lead as well as understand.

Dr. Kosal has generously devoted her time and talent to mentoring and encouraging her students to pursue undergraduate research projects. While research groups are standard in engineering and scientific disciplines, they are less common in the social sciences. Dr. Kosal is the first faculty member within our School to have created and sustained an on-going research group primarily of undergraduate students.

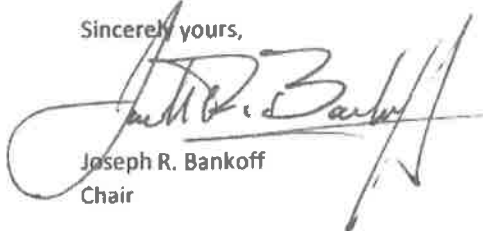
Dr. Kosal demonstrates a selfless commitment to her students and has created an intellectual bridge across the Institute. She has volunteered to mentor more than 40 undergraduate students drawn from 11 majors and schools, including mechanical, aeronautical, chemical, biomolecular, and biomedical engineering, biology, management, and computational media. Even while she was on leave to serve as an advisor to the Army during academic year 2012-2013, Dr. Kosal returned to campus once a month and met with students on the weekend.

Dr. Kosal creates unique opportunities for her undergraduate students to enrich their understanding of challenges facing those responsible for creating, implementing, and executing geostrategic policies. For example in 2013, three of her students traveled to the US Naval base south of Savannah to participate in a conference on "Sustaining the Triad: the Enduring Requirements of Deterrence." Here they had opportunities to meet with high level leaders in strategic deterrence from the US DoD, UK Defense Ministry, and industry, as well as touring a Trident ballistic missile submarine. They were the only students attending the conference that included former Ambassadors; US Congressional Representatives; and three- and four-star Generals and Admirals from the US Air Force, the US Navy, and the Royal Navy (UK).

Additionally, Dr. Kosal encourages her exceptional students to present at scholarly and policy conferences. For example in November 2012, Ms. Sapphire Liu gave a research talk (not a poster) at the "Popular Culture and World Politics v5.0" Conference at Hobart and William Smith Colleges in Geneva NY discussing the independent research she has been pursuing multiple semesters. Ms. Liu was the only undergraduate student at the academic conference. In the Spring 2013, D. Adam Thigpen presented the findings of his research on adherence to international law in modern video games at the Popular Culture Association/American Culture Association Annual Meeting in Washington, DC.

In summary, Dr. Kosal is an exceptional teacher, mentor, task master, opportunity provider, and encourager of her students. She is committed to the interdisciplinary development of a wide range of undergraduates across the Georgia Tech campus. She is admired by her colleagues, and widely and highly praised by her students. I leave the rest of the information as to why she should be considered for this award to the collection of letters from grateful students and other supporting material. Dr. Kosal is a valued member of our junior faculty and I therefore enthusiastically endorse her recognition for the outstanding work she has done and is continuing to do with undergraduate education.

Sincerely yours,



Joseph R. Bankoff
Chair



Dr. Kirk Bowman
Jon R. Wilcox Term Professor in Soccer and Global Politics
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CETL, Junior Faculty Teaching Award
Nomination of Dr. Margaret Kosal

January 29, 2015

Dear Selection Committee:

I am pleased to nominate Assistant Professor Margaret (Maggie) Kosal for the Georgia Tech Junior Faculty Teaching Award. As the Undergraduate Program Director for the Sam Nunn School, I have observed Dr. Kosal's teaching efforts with care and attention. Dr. Kosal is simply and without exaggeration *off the charts* as an undergraduate research mentor. As you know, undergraduate research was embraced by the Institute as an important element of our teaching mission as part of the QEP for the last SACs assessment. Dr. Kosal is superb in the classroom too, but I will focus my recommendation on her undergraduate mentoring.

As the Director of Undergraduate Programs, I must sign and follow all independent research courses and projects for undergraduate students. At the beginning of each semester, I have a line of students wanting to do undergraduate supervised research. Invariably, the majority wants to do research under the supervision of Dr. Kosal.

Why do so many students want to research with Maggie? The answer is clear: They will have a rigorous and intellectually stimulating research experience that can lead to publication or presentation at academic and professional outlets. Dozens of students have worked with Dr. Kosal over the past few years, resulting in significant professional and personal development and better career opportunities. This is teaching at the very highest level.

Dr. Kosal puts in hundreds of hours mentoring undergraduate students. It is nothing short of extraordinary. She not only has a gift for this activity but a passion and commitment that is unmatched. I cannot imagine a more deserving recipient of this award. I support her application in the strongest possible terms and applaud the Institute for recognizing this important mentorship.

Please contact me if you have any further questions.

Sincerely,

A handwritten signature in cursive script that reads "Kirk Bowman".

Kirk Bowman

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January 21, 2015

Joseph R. Bankoff
Chair
Sam Nunn School of International Affairs
781 Marietta Street, NW
Atlanta, GA 30332

I am writing this letter to review the teaching performance of Margaret Kosal. I observed Professor Kosal teach a three-hour lecture course, INTA 2040 (Science, Technology, & International Affairs), on the afternoon of November 21, 2013. Maggie's lecture style was clear, thoughtful, and precise. The content of the lecture appeared to closely match the objectives of the syllabus and of INTA itself: it blended together S&T with international affairs, showing the reciprocal relationships between them and the mutual importance of one for the other. I was impressed by the amount of material on current events and developments, which must require regular updating and preparation by Kosal.

Maggie has an excellent large-course lecture style. She speaks slowly and loudly, such that even those in the back of the room can hear and understand. I also suspect that non-native English speaking students can comprehend her easily. I was especially struck by how enthusiastically and well the students responded to her Q&A, which she peppered throughout the lecture. She did not need to prod and goad for participation. Each time a different number of students immediately raised their hands to respond. And students almost always came back with thoughtful, substantive answers to Kosal's questions on important points. Kosal also maintained a good balance between lecture and discussion, and between the students who participated in the discussion. This is difficult in a large lecture course, like INTA 2040, and she executes it well.

Finally, I regularly query students at all levels and majors about their top picks for professors and courses at INTA. Kosal is probably amongst the three professors most frequently mentioned as students' "favorites" or "best". I even hear about her "amazing courses" during the random pre- and post- class chatter amongst my students. It is a badge of pride that INTA has some of the best educators at Tech. I believe that Kosal is a powerful contributor in this regard. She is an asset to INTA and Tech.

Sincerely,

Mark Zachary Taylor
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Sam Nunn School of International Affairs
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Margaret E. Kosal, PhD

Teaching Philosophy

Whether teaching freshman engineers, graduate international policy students, junior diplomats from Central Asian states, mid-career Navy officers, or battalion chiefs from the New York City Fire Department, I believe that my most important role as an educator is to foster problem-solving abilities. I strive to instill a solid foundation in critical thinking such that students are able to ask the challenging questions and solve new problems in their chosen field of study (or practice). I am a strong advocate of using real-world case studies to supplement and to critique theoretical underpinnings of the area of study. For me, teaching international affairs hinges on the balance among teaching content (empirics), teaching theory (explanatory frameworks), and development of skills.

As a teacher, I want my students to make connections, to develop further their analytical abilities and apply that learning to problems of the past and new problems, and to increase their understanding of the relationships among science & technology, international affairs, and the geopolitical effects and outcomes. My approach to teaching parallels my interest in bringing together the conceptual aspects of the social sciences – international relations and security studies in particular – with in-depth empirical knowledge of science, technology, domestic and foreign institutions, and the policy-making process with practical, professional applications. I believe that educational approaches should provide students with greater understanding for how agents (individuals, groups, & ideas), political processes, institutions and structural conditions operate, interact, and effect outcomes. An ability to conduct analysis that is intellectually rigorous and empirically well-supported is especially important when trying to understand political, social, and economic realities in an environment as complex and diverse as the 21st Century.

I believe that the best opportunity for students to develop such insights is when they attempt to understand, test, and challenge theories and explanations against up-to-date and appropriate evidence for themselves. Meeting these priorities underlie the design of my courses, assignments, and assessments. I pay significant attention to writing and presentation skills when working with students, especially in my highly popular and strongly evaluated seminar courses. I am committed to the view that it is important for students to use the knowledge and skills acquired in the classroom to help serve their local communities, to be engaged in diverse geographical regions, and to have impact globally, and I tailor my teaching toward both academic and broader professional relevance. If I were interacting with students I might ask on what do I base these ideas and assertions or how did I come to those conclusions.

As my goal for students is to develop critical thinking and problem solving skills, I use non-traditional assignments and projects as complements to traditional tests and research papers to evaluate students' learning and performance. Depending on the course, when designing a syllabus, I provide students with choices and alternative assessments. For example, besides writing a research paper, students might write policy memos, op-ed articles, or personal narratives (like that which is part of the State Dept.'s Foreign Service Officer selection process) to demonstrate their knowledge and analytical skills. Moreover, I also incorporate multi-modal, progressive group projects into classes, such as writing individual informational memos, groups white papers, and presentations that culminate as part of a National Security Council Simulation as ways to strengthen students' analytical, teamwork, and presentation skills.

Teaching is an integral part of my scholarly identity. Students' perspectives and inquires often stimulate my ideas and broaden my thinking on different topics. My research and fieldwork experiences also contribute to my knowledge and enrich my ability to teach. Themes from my own research – such as innovation and emerging technologies, governance, WMD terrorism, and challenges to nonproliferation regimes – serve as the basis and inspiration for a number of courses. Teaching is a skill that develops slowly, and I am committed to refining my techniques to show students how they can become informed critical thinkers and active problem-solvers.

My success as a teacher is evident from the popularity of my courses (despite their rigorous nature), the demand for me as a dissertation advisor (directly supervising three of the thirteen doctoral students in the Nunn School PhD program and serving on the committees of two others), and the success of my research advisees in securing admission to prestigious graduate programs in schools of political science, neurobiology, and public health schools, into the Foreign Service, and other pursuits.

Since coming to Tech, the Nunn School core undergraduate course, "Science, Technology, and International Affairs" (INTA 2040), has become my signature course. I have developed five new courses: "21st Century Security Challenges" (4500-B, Senior Capstone course); "Intro to Global WMD Issues" (2042, new USG BOR General Education course approved Spring 2014); "Counterinsurgency and Small Wars" (8803, which was the single most popular graduate elective in the Nunn School and which was subsequently revised as an undergraduate Senior Capstone course for Fall 2010); "Deterrence in the 21st Century" (8803); and "Emerging Technologies and Security" (4803/ 8803) and redesigned three courses: "International Affairs & Tech Policy" (4050, taught while co-directing the South East Asia summer study abroad program); "Problems of Proliferation" (3102/ 8803); and "Challenges of

Terrorism” (3103/8803). Many of the courses have been taught to mixed classes of undergraduate and graduate students from the Nunn School and have attracted students from the Colleges of Engineering and Sciences. Every year of teaching and while on leave, I’ve received “Thank a Teacher” recognitions.

My teaching and mentoring philosophy reflects my research interest of learning policy and from practice. In order to give students a hands-on experience of foundations of national security and foreign policy in settings closer to the real-world, I created a dynamic learning experience of theoretical concepts in politics that breaks away from traditional lecture-based methods. In my classes I have taught students to simulate policy decision-making where they represented countries or intelligence analysts and interacted with each other cooperatively and competitively.

Beyond the formal classroom setting, I have created an intellectual bridge across the Institute through intentional formation of an interactive, interdisciplinary research group primarily composed of undergraduate students. I have supervised independent research by 42 undergraduates (from 11 majors and schools ranging from International Affairs to Mechanical, Aeronautical, Chemical, Biomolecular, and Biomedical Engineering to Biology, Management, Economics, and Computational Media), five M.S. students, three doctoral students, and one post-doc. Among them are four PURA awardees; four students who received SAIC Undergraduate research awards; two students who have been Finalists in the SAIC Student Paper Competition (each time they were the only undergraduate students selected as Finalists from across the Institute); four students who have received awards at the GT Undergraduate Research Symposium, such as the “outstanding IAC Oral Presentation” for a presentation on *Nanotechnology Development and the Chinese Military* and the “Outstanding IAC Poster Presentation” for research entitled “Deterring Bioterrorism.” In spring 2014, I was selected for the Georgia Tech Faculty Award for Outstanding Undergraduate Research Mentor (Junior Faculty), the first time a faculty member from Ivan Allen College has been selected as recipient. I’ve supported exceptional graduate and undergraduate students to present research at scholarly and policy conferences, a few examples of which are detailed in my Chair’s nominating letter.

Students appreciate the blend between careful study of scholarly readings and the personal experience of real-life policy-making that I can recount. I’ve also aimed to create unique opportunities for undergraduate students to enrich their understanding of challenges facing those responsible for creating, implementing, and executing geostrategic policies. For example in fall 2013, students and I traveled to the naval base south of Savannah to participate in the conference on “Sustaining the Triad: the Enduring Requirements of Deterrence,” where they met with high-level leaders in strategic deterrence from the US DoD, UK Defense Ministry, and industry, as well as touring a Trident ballistic missile submarine. They were the only students attending the conference that included former Ambassadors; US Congressional Representatives; and three- and four-star Generals and Admirals from the US Air Force, the US Navy, and the Royal Navy (UK). I regularly bring guest speakers from the policy world to classes, such as former Deputy Assistant Secretary of Defense and an Australian Brigadier, who both spoke to INTA 2040, and the seven field Army officers (Majors, Lt Colonels, & Colonels) who spoke to and met with my Counterinsurgency and Small Wars seminar.

Complementing my original scholarly research, my long-term strategic educational goals aim to foster and create broader collaborative opportunities across campus. In summer 2009, I first developed and chaired the annual seminar on policy and entrepreneurship as part of an NSF-funded Summer Undergraduate Research (SURF) and Georgia Internship for Teachers (GIFT) Programs in the School of Materials Science and Engineering. In Fall 2013, I became the Associate Director for the Sam Nunn Security Program (SNSP) – the more than decade-long program that brings doctoral students and others from across the Institute (primarily from the Colleges of Engineering, Sciences, and Computing) to the Nunn School for an intensive year-long seminar and field experience to help develop an understanding of the interactive roles between science and technology (S&T) and political, geostrategic, economic, institutional, historical, and policy contexts in which they may be causal, intermediary, or determinant factors affecting society. As part of the SNSP, I coordinated the first survey of alumni (metrics to assess effectiveness); conducted analysis of the findings; and am actively engaged in helping direct and sustain the program through its next full decade of increased success, increased global impact, and increased engagement across campus.

Students often see and remember my enthusiasm and level of energetic engagement with them and the material. That passion is consequence of love of teaching and the material, and it is enabled by underlying structure, planning, and flexibility. Each class has a particular goal, and most discussions are the result of careful preparation and intentional planning as part of advancing my educational goals in line with my teaching philosophy.

Statements from Students Regarding Dr. Kosal's teaching

Selected CIOS Comments

INTA 2040 Science, Technology, & International Affairs (Required course for INTA undergrads; fulfills USG BOR Social Science and Global Perspectives General Ed requirements; & regularly enrolled >100 students)

- Dr. Kosal, you are awesome! Among instructors that I've had, you stand out. I thoroughly enjoyed your lecture style, the subject, and the difficulty of your tests. I may have performed poorly on some of them, but I actually appreciated the challenge they posed. Your class is the kind that expected when I came to Tech, but which I don't see often enough. Thank you for your dedication to us as students.
- Dr. Kosal is an incredible instructor. Not only was she extremely qualified, she knew how to teach. She could easily keep the class engaged for the full hour and kept everyone's focus.
- This course was everything I had hoped for and so much more, Professor Kosal taught very effectively, the subject matter is pertinent to today and I was pushed past my limits. Great balance of everything.
- Doctor Kosal is SO awesome. I really learned a lot.
- I really enjoyed this class. The instructor made it both interesting and current and was willing to discuss and meet with individual students, and the lectures were informative and entertaining. Thank you!
- I've learned more from this one course at Georgia Tech than I have in several other courses combined. The assigned readings were a great choice, and tied directly into every lecture. The podcasts we listened to were something new to me. Likewise with the readings, they helped me obtain a better understanding of the course material. Although I had little knowledge of the course material coming into the class, what I've learned has exceeded my expectations; thus, this course sparked an interest in me that I never knew I had. Thank you for a wonderful semester.
- She was very interested in the topics. Her enthusiasm kept me engaged at even 8 a.m.
- Greatest teacher I ever had. Great teaching style and discussion among students.
- The knowledge (and confidence) she has about the subject is incredible and really enabled her to effectively communicate ideas.
- Her strength as a person. Her strong communication skill
- Professor Kosal truly brought the material to life. Every lecture was very interesting and stimulating and allowed you to think. She used every minute, but it was always engaging.
- Made everything very interesting, she seemed like she wanted to teach
- The experiences and multiple qualifications that Professor Kosal has along with her clear delivery and explanation in class makes her one of my most respected teachers. The way that she teaches the class and describes science, technology, and international affairs has impressed me and encouraged me to want to learn more about the subject in the future.
- Prof Kosal is a great lecturer and has a way to keep the class interactive at the same time. She also remembers student's names and that is impressive in it of itself!
- The best teacher or professor I've ever had in my educational career
- This class was amazing - the best one I took my freshman year!
- Overall, she has a lot of knowledge. She is 4* [4-star] professor.
- Great professor, great knowledge and willing always to help students
- This course was in reality the best course I have taken so far. I learned things that I did not know and will help me in my future
- Never let this professor leave! I'm recommending to the rest of the student body!

INTA 4050 International Affairs & Tech Policy (taught while co-directing the South East Asia study abroad)

- This course really opened my eyes to the vital role that science and technology plays in policy, and it was great having a professor whose background is in the area of science to teach this course. Being an INTA student at Georgia Tech, classes like this one are always my favorites!
- Dr. Kosal is incredibly passionate and energetic about science and technology and how these subjects relate to real-world international affairs issues, and her enthusiasm really makes for an engaging "classroom" (given the fact we were hardly ever in an actual classroom) setting. I had Dr. Kosal for INTA 2040, and when I saw that she would be teaching a course on this study abroad program, I was really excited because I knew that I would learn so much from her without even realizing that I was learning because she makes the class so enjoyable.
- Dr. Kosal comes from a background of diverse experiences, so she brings a great perspective, enthusiasm, and knowledge to the classroom. She is engaging and perfectly tailored her coursework to be relevant to our study abroad.

- Great enthusiasm in teaching the class and very helpful to students
- I wish Dr. Kosal could've stayed on the program longer so we could've learned more from her! :)

INTA 4500 Senior Capstone Seminar on 21st Century Security Challenges

- I am so glad that Kosal was my first INTA class, and that I was able to take her again my last semester at Tech. She is one hard professor, but it is easy to see how much she cares about her students and how much she enjoys teaching. I'm so glad I was able to take this class, and I feel so much more knowledgeable about IR now. I also loved how many topics we were able to discuss. I wouldn't change any aspects of this class.

INTA 4803 Counterinsurgency & Small Wars (Undergrad seminar course)

- I came into this class knowing virtually nothing about the course content; and week after week, reading after reading, I found myself growing more and more interested in the subject material. I felt confident in a new area. Professor Kosal is an incredible teacher. The readings are helpful, as are the projects and papers. The simulation-based classes were particularly engaging. One of my favorite Tech classes thus far!
- Dr. Kosal is wonderful professor and I found her class interesting and informative. She has the uncanny ability to spark interest in her students. This class was among the best classes I have had at Georgia Tech.

INTA 8803 Graduate-level seminars (Challenge of Terrorism, 21st Century Deterrence, Problems of Proliferation, Emerging Tech & Security, and Counterinsurgency & Small Wars)

- This was one of the most well-taught courses I've taken at Georgia Tech. It was very evident that you care whether students are learning the material, and that always makes a difference. Thanks for keeping a good balance between academic/intellectual rigor and practical application. I thoroughly enjoyed it and hope I get to take another course with you in the future.
- Dr. Kosal has a knack for seeing when students are not understanding a complex topic, and asks questions of the students that draw out understanding by using their response.
- Dr. Kosal's lecture style is dynamic and draws an audience in. Class participation was the liveliest I've seen in 2 years at Gatech. She challenged her students and consistently got great results. Great efforts planning and teaching the course; it showed. Assignments were creative and engaging, clearly explained, had explicit and fair timelines, and were promptly returned w/helpful feedback.
- Please teach this course again. I know that others will benefit from this course as it explains a very challenging and often misunderstood concept in our world today. It also seems to be a great way to teach students about the real world and how it operates.

Selected statements from individual students

Ms. Jennifer Beveridge, Doctoral Candidate Chemistry & Sam Nunn Security Fellow, INTA 8000 & 8001

In the classroom, Professor Kosal strikes just the right balance of guiding discussions to let us reach conclusions and a consensus on our own, while providing insight and assistance, if needed. I believe that my time in Professor Kosal's course has allowed me to consider pursuing additional, non-traditional, career options for a Ph.D. chemist beyond just research and that it overall has made my time here at Georgia Tech more enjoyable and substantive. I would be thrilled to have an instructor as dedicated and motivational as Professor Kosal in every course, and I strongly support her nomination for this award.

In class, Professor Kosal challenges us to keep up with current global events and helps us understand cultural and political reasons for trends and events we observe. As Ph.D. students in the sciences, it is far too easy for us to step away from human events, and retreat into the world of fact and observation. Professor Kosal, as trained chemist herself, understands our tendencies and encourages us to expand our focus and apply our scientific training to study world issues with broader impacts than we would typically see in our research labs.

Mr. Marc Canellas, Doctoral Candidate Aerospace Eng & Sam Nunn Security Fellow, INTA 8000 & 8001

Ultimately, through this program she is a mentor to Ph.D. students of more disciplines than most professors, ranging from public policy to aerospace engineering. She brings her passion, her energy, and her intellect to bear on each of our projects and within every class period.

Mr. Taylor Roundtree, 4th Year CHBE and International Affairs student, INTA 2040

I wanted to write you to thank you for a great semester in INTA 2040. As both an engineering and INTA student, it was great to have a class that showed the intersection of both realms. I really think that the fact that we went into

everyday life effects of science and technology was great, as we often do not see these realities in our engineering course loads. I really think that this course would be a great required course for all engineers to take as it shows how the things we work on can and do affect the world and governmental policy.

Mr. David Alman, 4th Year Mechanical Engineering, student in INTA 4803 undergrad seminar

My experience taking Counterinsurgency and Small Wars with Professor Kosal was anything but “just another class.” Instead, Professor Kosal’s teaching style wove together a variety of different disciplines: engineering, economics, psychology, international affairs - combining them all into a full spectrum analysis of the topic. As an engineer, I found this approach fascinating and intellectually stimulating. It forced me to look at issues from different perspectives, something rarely taught in my engineering classes and, more importantly, allowed me to practice presenting my ideas in front of my peers. Additionally, the methodology of looking at an issue from multiple perspectives was an incredible introduction to systems engineering approaches. I would highly encourage any engineer to take a class with Dr. Kosal. Her approach allows an engineer to thrive just as much as it allows them to grow in new directions.

Ms. Marika Manuud, 4th Year MSE, student in INTA 2040 & independent research student

My first interaction with Professor Kosal was as an instructor. My freshman year, she taught a class called Science, Technology, and International Affairs. As a Materials Science and Engineering student, I found the course title captivating. What I got from the course was more than I could have ever imagined and more than the course title could have prepared me for. By far, this class was my most challenging freshman year. Professor Kosal engaged her students with her anecdotes and real-life examples and challenged them with her thought-provoking questions. She demanded excellence from her students and set the bar high for what it means to truly know the material. For me personally, Professor Kosal opened my eyes to other arenas I could take my engineering degree. She instilled in me an excitement about the global implications technology and policy can have on humanity.

My second interaction with Professor Kosal was as a research advisor. Amidst the large number of students in the class, Professor Kosal took the time to know my interests. She saw my genuine passion for bridging international affairs and engineering, and she encouraged me to pursue undergraduate research with her. When I first approached Professor Kosal about research, I was apprehensive. Professor Kosal taught me to leverage my technical background in my research and writing. As a research advisor, Professor Kosal offered me the best of both worlds. Having been trained as a scientist and now teaching in a social science department and supervising social science-directed research, Professor Kosal clearly offers something particularly valuable to the students who are given the opportunity to work with her. She enabled something different than any other experience I have had or heard of from my peers on campus.

Ms. Amy Boudreau, 4th Year International Affairs, student in INTA 2040, INTA 4803, & INTA 4500

To date, I have had the pleasure of taking three courses with Dr. Kosal. The first time I met her was in the spring of 2011 when I was enrolled in her INTA 2040 Science, Technology and International Affairs class. At the time, I was a freshman international affairs and chemistry double major struggling to find a way to rectify the gap between my favorite disciplines. Dr. Kosal’s science background and impressive achievements in the realm of political science showed me that a person’s life, and career, cannot be defined by the categories of study offered by a school’s registrar. I invited Dr. Kosal to a Bring-Your-Professor to Lunch event that semester seeking academic guidance. I could not have known how valuable this mentor-mentee relationship would become.

Dr. Kosal is incredibly effective at running seminar-style courses in a way that ensures every student grows as a political scientist by the end of the semester. She encourages her students to engage themselves in the course material; she understands how daunting seminar-style classes can be for undergraduates, and actively fosters a safe environment for group discussions. I attribute much of my work ethic, my drive and ambition to the lessons I have taken away from her classes. One of the things that I find so extraordinary about her teaching style is how high she sets the bar for success. It has taught me to never stop striving for greatness.

Great teachers are hard to come by; they’re not just conduits of information and knowledge, they touch their students in ways that change their lives forever. As a graduating senior moving towards the twilight days of my college career, I’ve naturally begun to reflect on my time at Georgia Tech. During my years at this school, Dr. Kosal has been a role model, a mentor and a friend. And, to borrow from Ray Bradbury, you could lift my skull and in the convolutions of my brain you’d find the big ridges of her thumbprint. I’m one of many students who have benefited from the tutelage of Dr. Kosal.

JONATHAN Y. HUANG

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Dr. Esther Jordan
Assistant Director for Programming
CETL/Clough Commons, Suite 457
Georgia Institute of Technology
Atlanta, GA 30332

January 26, 2015

Dear Dr. Jordan and Members of the Award Committee:

I am writing to lend my enthusiastic support for Professor Margaret Kosal's nomination for the CETL/BP Junior Faculty Teaching Excellence Award. I have known Professor Kosal for many years since I first started my graduate career at Tech, and she currently serves as the chair to my dissertation committee. Over the years, I have not only benefited tremendously from having her as my teacher, advisor, and mentor, but I have also had many opportunities to observe her approach to teaching and learning and to witness her excel in those capacities with other students. Her passion for what she does is infectious, and her care for her student's intellectual and professional growth has made a lasting impact on my scholarly development, as it has with many others. Therefore, I am delighted to have this opportunity to share with you my experiences as one of her students and why, in our eyes, she is highly deserving of this award.

I first met Professor Kosal in the fall of 2007. At that time, she had just gotten to Tech after finishing her two year appointment as an AAAS Science and Technology Advisor at the Pentagon, and I had just started as a master's degree student in international affairs. Our first class together, titled *Emerging Technologies and Security*, was at once exotic sounding and seemingly daunting. Trained in traditional social sciences and liberal arts, I was concerned about a class that involved discussions on nanotechnology, synthetic biology, and cognitive sciences. My nervousness very quickly dissipated, however. The class turned out to be as engaging as it was inspiring. Not only was Professor Kosal exceptionally good at bringing difficult technical concepts to light and making them accessible to scientists and non-scientists alike, but she was also highly skilled at leveraging her own academic and professional experiences to showcase the multifaceted ways that science, technology, and security policies interact. Yet, it was her enthusiasm and passion about the subject that truly made an impression. While I cannot recall one single dull lecture from her, I do remember her ready willingness to invite and engage students, both in and out of the classroom, to take a deeper dive into the various topics uncovered in class. From our extensive discussions on my course project, I discovered my current research interest. The project turned into my first publication, and understanding military applications and policy implications of emerging technologies has become the defining feature of my doctoral research.

A quick look at the student evaluations of the wide range of classes she has taught is perhaps testament enough to her passion for teaching and her ability to engage in the classroom. Yet, in my mind, what truly sets Professor Kosal apart is her interest in making a lasting impact on her students' intellectual and professional development beyond their class time together, as well as her ability to motivate students to do better. Over the last several years, she has advised an impressive number of students on their research projects, many of whom, like me, were inspired by their various classes with her. As an advisor, she certainly is tough. From my own experience conducting collaborative research projects with her and from observing

her guidance of others, it is all too clear that she expects the highest caliber of work. Working with her oftentimes means taking on difficult challenges, be it to truly immerse oneself in a new area of study, to become well-versed in technical details, or to master a research methodology well beyond what may be taught in one's regular coursework. Yet, her high expectations are accompanied by sound guidance and a genuine interest in providing the students all the support and resources they may need in order to succeed. For instance, she has on many occasions leveraged her professional contacts and opened doors for me to conduct interviews for my research. She has also encouraged, helped prepare, and actively supported many of her graduate and undergraduate students to present their research at major conferences. As an advisor, she has such a strong belief in her students' abilities and such unwavering support for their work, that she inspires confidence in us to meet tough intellectual challenges even when we ourselves may have doubts.

As a teacher and mentor, Professor Kosal is as innovative as she is intellectually versatile. For instance, adapting from her own experiences in the sciences, she organized her many research students into a research group that met on a regular basis. As this is an unorthodox way of managing student research in the social sciences, I was initially a little skeptical—certainly the last thing I wanted as a graduate student was to have another regular meeting on my schedule to listen to undergrads talking about their research. Yet, within a couple of iterations of the research group, I changed my mind. The research group, in fact, offered a forum where the participants can exchange ideas and discuss difficulties in research, which is helpful and intellectually stimulating for anyone engaged in substantive research. Perhaps more importantly, though, the research group provided a safe venue beyond the regular classroom for students to hone their skills in professional academic practices. Professor Kosal deliberately built into the group meetings opportunities for students to practice giving presentations, discussing each other's work, and providing thoughtful feedback. Over the years, as a result of her mentorship, I have observed several undergraduate students who have gone from being timid and shy to being able to actively discuss other's work as well as provide sound defense to their own arguments. In these meetings, I have also sharpened my skills at guiding other's research and providing feedback, which has contributed greatly to my own development as a teacher. Professor Kosal's research group, in my mind, represents not only innovative thinking in education and effective mentorship, but it truly embodies the care she has for students to develop as a confident, independent, and capable scholar.

Being able to competently convey knowledge and make course materials interesting and relevant are traits of a good professor; being able to motivate students to truly care about what they study and have the desire to learn are marks of a great one. For a student, what sets Professor Kosal apart is her dedication to her students. As an exemplar teacher, advisor, and mentor, she effectively blends research and teaching, inspires learning, cultivates an individual's intellectual and professional growth, and makes lasting impact. I believe Professor Kosal truly embodies all the important qualities in teaching and learning that this award represents, and I am honored to have this opportunity to share with you my experiences as her student and to endorse wholeheartedly her nomination for this award.

Respectfully,



Jonathan Huang
PhD Candidate
Sam Nunn School of International Affairs

January 23, 2015

To the Award Committee:

This letter is a testimony to the profound impact that Dr. Margaret Kosal had on my undergraduate education as a research mentor. I was an active member of Kosal's research group for three years, beginning the summer following my freshman year.

As a freshman, I sent Dr. Kosal a completely unsolicited e-mail seeking advice on integrating my interest in science policy with my Biology major. Rather than meet my enthusiasm with caution, suggesting I take a few INTA/PUBP courses and come back to her (as three other faculty had done), Dr. Kosal was excited by the challenge of working with me. Her belief in my ability to learn from day one inspired me to delve further into the field of international security than I could have ever envisioned as a freshman. Such steadfast confidence in each member of our research group, in combination with her unique background, allowed Dr. Kosal to facilitate learning on many different levels at once during monthly meetings: simultaneously educating science and engineering majors in foreign policy, INTA majors in biochemistry and nanotechnology, and all of us in nonproliferation and counterterrorism strategy. By giving more experienced members the freedom and responsibility to teach new and prospective members, she created a student-run environment with an incredible amount of crosstalk between disciplines. This approach was only successful because she also patiently developed our individual strengths, tailoring our reading and writing assignments to our specific interests and valuing quality over quantity of work. Importantly, she was highly responsive and accessible at all times, maintaining our monthly meeting schedule even when she worked in D.C. by traveling to Atlanta and spending weekends with us. In these ways, she created a seamless sense of order out of what would have been chaos under less perceptive leadership. Without Dr. Kosal's guidance and support, it is unlikely that such a group would have ever come together, and my original interest in biosecurity would have never turned into a President's Undergraduate Research Award, a position as a Model UN committee chair, and an interdisciplinary Capstone project for the International Plan, alongside eight semesters of research in the NeuroLab.

Dr. Kosal most clearly demonstrates the enthusiasm and high expectations that she has for her students' work by inviting them to special seminars and even dinners with security experts visiting the CISTP. At the dinners I attended, she would put us on the spot by excitedly describing an aspect of one of our projects to the guest and expecting us to pick up where she left off. Although particularly daunting to an undergraduate, I now realize that these dinners were my first real-world opportunities to share and defend my work. Importantly, Dr. Kosal patiently listened as I explained my project, helped me when I got stuck, and carefully evaluated my performance later. These experiences taught me how to effectively use my interactions with others to improve my questions and approaches to answer them. As I begin preparing for my doctoral candidacy exam, I am acutely aware of how valuable these lessons were and will be throughout my career as an academic scientist.

Throughout my undergraduate training at Georgia Tech and my first two years of graduate school, I have been lucky enough to call seven outstanding faculty members *mentors*. Of these seven, Dr. Kosal stands out for her ability to simultaneously challenge and encourage my questions. She is the type of mentor that inspires motivation in her students through her enthusiasm, high expectations and genuine belief in their abilities, and importantly, she recognizes how students' needs evolve, often before they notice themselves. I never truly realized how rare these qualities were until it came time to select a doctoral thesis advisor, and I found myself comparing various faculty to Dr. Kosal. She deserves this award not only because she taught me how to be a scientist, but also because the standard of mentorship that she maintains with ease is rare and exceptionally impactful.

Sincerely,



Patricia L. Murphy
Neuroscience Graduate Student
University of Pennsylvania

January 30, 2015

To whom it may concern:

I am writing to highly recommend Dr. Margaret Kosal for the Georgia Tech Junior Faculty Outstanding Undergraduate Research Mentor award. Professor Kosal served as my professor for Science, Technology, and International Affairs, as well as my undergraduate research advisor over a three-semester period in 2009. During that time, I researched the neoliberal and realist perspectives of bionanotechnology development in Iran and the Islamic ethics of Iranian bionanotechnology development within the scope of an Islamic government with her guidance and mentoring.

Dr. Kosal's ability to fuse international affairs, public policy, and science and technology is a unique talent that was incredibly beneficial during my undergraduate career. After spending my first three years at Georgia Tech taking pre-med science classes in conjunction with the classes required by my international affairs major, Professor Kosal was able to finally provide me with the link I needed to integrate my interests. Her passion for science and technology was visible in every interaction with her. More importantly, her dedication to developing her students' knowledge and critical thinking abilities helped her students to apply their education to real-world experiences.

While researching with Professor Kosal, she was able to help me develop my policy analysis skills, as well as encourage me to explore the challenging aspects that technology introduces into international affairs. Further, it was through her mentoring that I recognized my passion actually rested in the junction of policy and science and policy analysis. Dr. Kosal provided me with several opportunities to research complex topics, and due to Dr. Kosal's strong encouragement to enter my research paper, I was one of three undergraduate finalists and the only liberal arts major finalist to win the 2009 Georgia Tech SAIC competition.

Following my undergraduate career, I attended the George Washington University and recently graduated with a M.P.H. in health policy. Since being in Washington, D.C., I pursued an internship at the Pharmaceutical Research and Manufacturers of America and a public health fellowship at the White House of National Drug Control Policy. I recently also started a Medicaid-focused consulting firm, The Menges Group, with former co-workers, which consults for state governments and national and state health plans. I directly attribute all of these opportunities to the skills I was able to develop through my research at Georgia Tech and to Professor Kosal's mentoring.

Professor Kosal truly demonstrates the qualities of an Outstanding Undergraduate Research Mentor. I cannot think of anyone more deserving of this award than Dr. Kosal, and I am honor to recommend her. Please feel free to contact me for any further information.

Sincerely,

Amira Mouna

Amira.mouna@gmail.com

706-294-4748

January 23, 2015

To Whom It May Concern:

Dr. Margaret Kosal was my research advisor from Summer 2009 until Spring 2010. Under her advisement, I first researched biological weapons deterrence theories. Later, I focused on the use of cognitive sciences within the US military. I was encouraged to do research while she was professor for INTA 2040—her enthusiasm and passion for her field, in addition to her welcoming attitude towards students inspired my decision to approach her about opportunities.

As a research advisor, Dr. Kosal provided the right balance of structure and independence—while she provided the initial framework and background information on my topics, her advising style allowed my research to develop as I brought in more information and began crafting my own theories. At our weekly meetings where we shared discoveries and developments from the previous week, she provided support and clarity as needed. She made daunting projects seem do-able, while simultaneously challenging me to do more, work faster, and think deeper.

During our year together, Dr. Kosal helped me secure a Presidential Undergraduate Research Award (PURA) and win the outstanding poster award for Ivan Allen College at the 5th Annual Research Symposium. She also presented some of my research at the Atlanta Conference on Science and Innovation Policy (October 2009). As a student and researcher, the work we did together helped hone my professionalism, writing and presentation skills, and the ability to critically analyze data, opinions, and theories (very powerful in the soft world of international affairs). But above all that, the time I spent with Dr. Kosal had an indelible impact on my life outside the classroom by changing my perspective and expectations about my future.

She and I worked together during my senior year at a time I felt somewhat aimlessness and hopeless because I hadn't yet developed a clear path for my future. Dr. Kosal gave me the faith that each step we take in life leads down the path that we are meant to take, and she helped me believe that while I may not be able to see the trail beyond the first steps, each step will open up new opportunities that, perhaps in retrospect, will all seem perfectly aligned. With this belief, I was able to let go of my preconceived notion that I needed to have it all figured out before I took any steps. So, I took a "big" step.

Following graduation, I decided to move to China to teach English for a year. My first teaching job led to a better teaching job. Then, after two years of working abroad, I decided to study the language full time. During this time, I met my fiancé and have happily started on the path of my personal/family life. And with my fiancé (who is also now my business partner), I have become the General Manager and part-owner of ZAX BBQ, an American barbecue restaurant in central China.

Though I rarely discuss the threat of biological warfare in my current position, I look back at my experience doing research with Dr. Kosal as a particularly formative time. The specific skills that have carried over include: concise and convincing presentation skills; critical thinking and analysis; data-driven decision-making; and Internet-based research. Above all that, my time researching with Dr. Kosal gave me a sense of self-confidence that helped me take some pretty big leaps of faith—leaving my home, leaving a job, loving someone, going back to school, and opening a business. Doing research with Dr. Kosal taught me to have faith in the next step.

For further information, I can be reached at kahlange@gmail.com or at my Chinese mobile number (+86 186-2217-3894).

Sincerely,
Katherine Lange Johnson
B.S. International Affairs 2010
Sam Nunn School of International Affairs
Georgia Institute of Technology

Illustrative Undergraduate Students Mentored (42 total) by Margaret E. Kosal, Nunn School of International Affairs

Name	Major	Project	Dates	Achievements	Current Position
Nikita Basandra	CBME	Bionano-technology and Security: Strategic Significance in Iran	Spring 2009	<ul style="list-style-type: none"> Co-author of "Probing the Strategic Significance of Nanotechnology in Iran" International Studies Association (ISA) Annual Meeting, February 2010, New Orleans LA. 	Regulatory Affairs Specialist at St. Jude Medical, Minneapolis MN
Sophia Ahmed	INTA	Pakistan & the Role of International Institutions for Security	Summer 2008 Fall 2008 Spring 2009	<ul style="list-style-type: none"> Selected for competitive internship at UN Featured in CNN story, http://www.cnn.com/2008/WORLD/asiapcf/07/30/karachi.boys/ 	JIEDDO, US Defense Depart
Ted Danowitz	IAML	Strategic Significance of Nanotechnology in China	Summer 2009 Fall 2009	<ul style="list-style-type: none"> Outstanding oral presentation awardee from the Ivan Allen College (IAC) at GT 2010 Undergraduate Research Symposium 	US State Dept, Foreign Service Officer, Guangzhou PRC
Graham Sweeney	INTA	Nanotechnology and Security: Russia	Summer 2010 Fall 2010	<ul style="list-style-type: none"> SAIC Undergraduate Scholarship recipient for research 	Georgia Department of Economic Development
Lucia Bird	IAML	Hamas, Hezbollah, and WMD	Fall 2010 Spring 2011 Fall 2011	<ul style="list-style-type: none"> Presented research on "State Support of Terrorism and WMD Use," at the 2011 DoD DTRA Basic Research Conference, Aug 2011, Springfield, VA Selected to present at "Cadet/Student Conference on Terrorism, Insurgency and Asymmetric Conflicts," Combating Terrorism Center, United States Military Academy at West Point, March 2012 2013 Finalist, SAIC Student Paper Competition – <i>Bird was the only undergraduate student among eight PhD and one MS students selected</i> Co-author paper for annual ISSS/ISAC Meeting, October 2011, Irvine CA Co-authored paper under review at <i>Studies in Conflict and Terrorism</i> 	Pursuing doctoral degree in Political Science, University of North Carolina at Chapel Hill
Patti Murphy	BME	Security Implications of Advanced Neuroscience, Pharmaceuticals, and the Cognitive Sciences	Fall 2010 Spring 2011 Fall 2011	<ul style="list-style-type: none"> Presidential Undergraduate Research Award (PURA) recipient Co-author paper in preparation for <i>Biosecurity and Bioterrorism: Biodefense Strategy, Practice, and Science</i> 	Doctoral student in Neurobiology, University of Pennsylvania
Kamma Bohra	ECON	Biological Weapons Verification	Summer 2011 Fall 2011	<ul style="list-style-type: none"> 2012-2013 Mollie Newton Award for Excellence in Economics 	Ernst & Young Global Limited, Chicago IL
Chris Tanner	EIA	Military Nanotechnology in China	Spring 2012	<ul style="list-style-type: none"> Presented research on "Nanotechnology and Composite Materials: Chinese Defense-Related Research and Development" at the <i>10th Annual NanoTechnology for Defense Conference</i> (NT4D), 2012, Summerlin NV 	Frazier & Deeter, LLC, Atlanta GA
Sapphire Liu	IAML	Digital Gaming and WMD: Norms & Acquisition	Fall 2010 Spring 2011 Fall 2011 Fall 2012	<ul style="list-style-type: none"> SAIC Undergraduate Scholarship recipient for research Oral presentation of research on "Security and Gaming: The Portrayal of Acquisition & Use of Nuclear and Chemical Weapons" at the <i>Popular Culture and World Politics Conference v. 5.0</i>, 9-11 November 2012, Hobart and William Smith Colleges, Geneva NY Co-author paper for ISA Meeting, March 2011, Montreal, Canada Co-author paper in preparation for <i>Journal Nonproliferation Studies</i> 	Intelligence Analyst at Merck Pharmaceuticals, New Jersey
Andrew Wirt	UIAC	The Norms of WMD (Dis)Use	Spring 2014		GT undergrad