

VUSE International Strategy

March 2, 2010

I. VISION

The Vanderbilt University School of Engineering will seek international collaborations leading to research, education, and professional excellence.

II. GOALS

- Develop mechanisms for the School of Engineering faculty to establish international research collaborations and scholarship.
- Provide opportunities for VUSE students to gain the required skills to practice engineering in an international context.
- Actively recruit some of the most promising scholars from around the world.
- Engage appropriate alumni and parents in providing assistance to VUSE for its international strategy.

III. STRATEGIES

- Develop mechanisms for the School of Engineering faculty to establish international research collaborations and scholarship.
 - a. Nurture the culture of international collaboration among faculty for the purpose of gaining competitive advantage.
 - i. Create a list of faculty currently engaged or engaged within the last two years in international research.
 - ii. Quantify percentage and effort level that is international in nature and monitor change. Types of international work to be included are papers published with international collaborators, research awards, funded educational opportunities, number of international visiting scholars and students, and salary effort.
 - iii. Create incentives for international related activities.
 1. Publications.
 2. Monetary (e.g., possible partial faculty offset).
 3. Part of promotion system for T/TK.
 4. Create strategy to reach out to higher university levels (provost, etc.) for information and buy-in.
 - b. Seek new funding opportunities, exploratory and long term, from American and foreign governments, international bodies and foundations, as well as campus sources such as the Vanderbilt International Office (VIO) for international collaborations.
 - c. Lead and/or support grant, contract, and development proposals oriented towards development of global engineering programs.
 - i. Increase means for improved School of Engineering support.
 1. Provide cost-sharing for IGERT and other proposals as a means of building out international collaborations and showing school support for these efforts.
 2. Provide partial source of matching funds.

3. Provide funding beyond departmental gifts from donors for international speakers/guests in each department each year.
 - d. Examine existing procedures for international visitors, travel, etc. and identify barriers and facilitators, and work to remove identified barriers.
 - i. Develop housing resources available to all VU schools and colleges for incoming international faculty and graduate students through the Vanderbilt International Office (VIO).
 1. Research best practices at other universities.
 2. Examine potential for establishing new sabbatical housing model.
 3. Work with relevant university offices to develop a pool of housing available to all schools with a clearinghouse.
 - e. Oversight of the international goals and strategies completion will be assigned by the Dean's Office.
- Provide opportunities for VUSE students to gain the required skills to practice engineering in an international context.
- a. Articulate the elements and required skills for successful practice of engineering in an international context. Develop outcomes and metrics, map these against the programs offered to our students, and refine the program portfolio as necessary.
 - i. Review literature for the current best practices of what it means to improve one's global competence in engineering.
 - ii. Review relevant literature to identify assessment tools for global competencies.
 - iii. Determine VUSE priorities within these global competencies and use only appropriate assessments to identify growth opportunities for our students who study or intern abroad.
 - b. Take advantage of global learning opportunities currently available in VUSE and VU by further engaging international undergraduate and graduate students, and faculty in VUSE's international education initiatives.
 - i. Actively recruit, coordinate and provide administrative support for incoming international students for summer research opportunities at VUSE.
 - ii. Explore opportunities with the Institute for Global Health at VU.
 - iii. Offer key core courses in the summer in each VUSE major as an enabler to increase study abroad opportunities for all VUSE students. Consider financial support of courses being offered to returning or outgoing study abroad students.
 - iv. Explore the use of on-line or distance education courses to allow a student to complete a VUSE required course that their study abroad provider does not offer.
 - c. Arrange international corporate internship opportunities facilitated through the VUSE/Vanderbilt Career Center formal internship program.

- i. Identify companies and organizations with international campuses with whom VUSE already has a relationship. Actively recruit our partners to help place students internationally.
 - ii. Obtain a list of VUSE's alumni living abroad.
 - iii. Work with DAR to recruit our international alumni to assist with placements.
 - iv. Utilize connections through the German DAAD and similar programs.
- d. Make available to students additional international research and corporate internships not sponsored by VUSE.
 - i. Revisit the opportunities available through the NSF. Advertise these programs throughout the faculty and encourage faculty to apply.
 - ii. Maintain a student website that identifies all international study/internship opportunities. Periodically alert students to the presence of this site and encourage them to apply to particular programs.
- e. Provide faculty with tools and opportunities to incorporate global perspectives and skills into courses and design work performed at VUSE.
 - i. Generate a list of coursework with international content that is currently offered in VUSE.
 - 1. ENGM.
 - 2. Senior Design.
 - a. VUSE should provide support for international collaborations across universities or projects.
 - ii. Make faculty aware of funding opportunities available through VIO to internationalize their curriculum.
 - iii. Research best practices and share these with the faculty.
- f. Develop international opportunities for undergraduates and graduate students to do research abroad.
 - i. Revisit opportunities available through NSF. Advertise these programs throughout the faculty and encourage faculty to apply.
 - ii. Encourage faculty members to explore ways to exchange graduate students between partner laboratories. Support these efforts administratively from the Dean's office.
 - iii. Find and make available language courses for exchanged graduate students. When possible, detail these resources (such as the English Language Center at VU) in agreements with foreign partners.
- g. As dictated by strategic needs, grow the number and location of international study abroad and exchange opportunities.
 - i. Provide students with opportunities to study abroad with courses available in a foreign language.
 - 1. Develop Valencia site for Spanish language.
 - 2. Develop German Engineering site for German language.
 - 3. Develop Grenoble site for French language.
 - 4. Consider adding engineering offerings at the Vanderbilt-in-France site in Aix.
 - ii. Add language skills advising to all study abroad advising to encourage students to prepare for their study abroad experience.

- iii. Engage the foreign language departments in discussions about coursework available to engineers studying abroad. Consider possible new courses geared towards VUSE students.
 - iv. Create specimen curricula that include language study.
 - v. Encourage the curriculum committee to reevaluate the Liberal Arts Core requirements to more readily allow students to study a foreign language and culture in depth.
 - vi. Offer more engineering courses during the Maymester term
 - 1. Link faculty to their foreign research location.
 - 2. Consider implications of the university's new budget model
 - 3. Provide adequate summer support for faculty teaching these courses, making use of a self-sustaining financial model.
 - 4. Consider NSF and DAAD support where possible to ease financial burden for students and faculty.
 - h. Work with VIO to create a global certificate for undergraduate students to encourage more students to incorporate international experiences into the existing curriculum requirements.
 - i. Ensure that this certificate includes a language requirement.
 - ii. Encourage the curriculum committee to reevaluate the Liberal Arts Core requirements to more readily allow students to study a foreign language and culture in depth.
 - i. Examine existing barriers to VUSE students in foreign language education. Make appropriate recommendations to the VUSE curriculum committee and the Dean's office.
 - i. Assess our incoming students' language abilities when they arrive on campus. Determine the percentage of students who have incoming language ability, perhaps as determined by AP exams.
 - ii. Create specimen curricula that include language study. As difficulties in doing so are identified, document them and create an action plan for resolution.
 - iii. Advertise and communicate well with prospective and incoming students.
- Actively recruit some of the most promising scholars from around the world.
- a. Examine current international graduate student recruitment techniques at other universities to identify best practices that can be implemented at VUSE.
 - i. Generate a list of the best engineering programs in the countries in which we recruit.
 - ii. Research best practices at other universities.
 - iii. Develop additional graduate student exchanges. When logical, form these with the strategic international partners that Vanderbilt has identified.
 - iv. Work with Provost and Chancellor's offices to explore additional funding for international graduate students.
 - v. Internationalize graduate student recruiting, increasing the number of applicants from first-tier foreign institutions and making known that graduate study in the U.S. carries fellowships and free tuition typically.

- b. Strengthen opportunities for collaboration that encourage and facilitate visiting post-docs and faculty to work at VUSE.
- Engage appropriate alumni in providing assistance to VUSE for its international strategy.
 - a. Leverage the goodwill and contacts of VUSE alumni who live outside the U.S. or who have significant international contacts to provide research and corporate internship opportunities for VUSE students.
 - b. Enlist VUSE ambassadors around the world to aid in implementing our international strategic plan.
 - i. Obtain a list of VUSE's international alumni living abroad.
 - ii. Work with DAR to recruit our international alumni to help with placements.
 - iii. Create a list of international universities with whom we have ongoing relationships and publicize.
 - c. Offer donors opportunities to provide support for international goals and strategies of VUSE.