Why Engineers need Leadership skills? Where to Start?

In the 21st century, merely having scientific knowledge and technical skills is not enough for engineers. Engineers are expected to lead projects and teams. As emphasized by Gary C. Hinkle, the chair of the IEEE Oregon Section and the president of Auxilium, Inc., engineers also need to be influential to drive innovations that will benefit clients (and perhaps society) and provide guidance for less-experienced peers. These are the attributes of leaders and so leadership and management skills are important or actually essential to engineers. The most effective way to learn how to be leaders is through integration of theories and practices. In the School of Engineering, the most straightforward way of learning and practicing leadership is to join Peer Mentoring Program (PMP). There are also Service Courses for students to learn, practice and experience leadership. In addition, at Engineering Commons, the Center for Engineering Education Innovation (E²I) set up a corner “Professional Leader’s Focus” area to provide leadership knowledge references to students.
Peer Mentoring Program (PMP)

This program is to train senior students (as Peer mentors) to be future leaders by serving the first-year students (Mentees). Peer mentors lead their mentees to assimilate into university life by providing academic advice, campus life information and social network support. Workshops about mentoring and leadership skills are offered to senior students so that they can be well-prepared to serve their mentees. Through Registration Day, Team-building Camp and inter/intra clan activities, senior students can learn how to be leaders through practices. They go through the difficulties, joys, failures and successes of being leaders and this invaluable experience cannot be learnt from books.

“To act as a mentor, as well as a friend of them, requires more than the knowledge of answering their questions. The way you communicate will influence greatly your relationship with them.”

“The most important attribute as an effective peer mentor is the willingness to care about other people.”

“From the program, I have widened my circle of acquaintance…...The most important thing I learn is to take more initiative and actively engage with others…...”

“As an effective peer mentor, you need great passion and good communication with mentees.”
ENGG 1900 - Service Learning Program [1 credit]

This course is to engage students into service activities so that they can learn leadership skills through serving others. Briefly, each student needs to do an on/off-campus service activity and then write a reflection or give a presentation as appropriate. Guidelines will be given to students about what should be included in their reflections.

Students will get leadership-related training before they serve others. Here are some reflections by students who took the course:

“Everyone had his/her own duties and everyone was important. We could not leave our members alone or all the jobs were assigned to one person to finish it. We should work together and came up with some new ideas.”

“Our team could still work smoothly by dividing tasks. I have learnt that people with different strengths could take up different responsibilities. For example, mentors who are familiar with the computer software could help do the designing, while others could give ideas.”

“Without everyone’s contribution, we can do nothing. We should acknowledge our strengths and weaknesses, so that different jobs can be allocated to the best-suited people.”

ENGG 2900A - Community Service Project [2 credits]

Unlike lecture-based engineering courses, this course offers more interactive modules (e.g., experiential activities, simulation exercises, self-assessment and team building games) for students to learn. It also has more special features than other traditional courses:

- Open to students of 3 schools (School of Business and Management, School of Engineering and School of Science) so that students from different backgrounds can learn and work together

- Having mentors from different disciplines (e.g., engineers, lawyers, accountants, bankers, company CEOs or directors, etc.) to hold group discussions and advise students on group service projects

- Offering more autonomy for students to learn and practice leadership through their group service projects
Each student’s performance is assessed by a self-reflection paper and the final group service project presentation. Here are some highlights of the student projects:

Serve the kids of ethnic minorities by teaching them Chinese at YMCA Centre so they can easily assimilate into the community.

Help underprivileged primary school students learn English through a real life practice: an outdoor “City Hunt” game (encouraging students to speak in English to gather information from stores and tourists) at the Peak.

Provide a HKUST campus trip to kids from Onfire (an NGO that provides free tutoring service for underprivileged kids), for the purposes of inspiring them, and giving them support so that they can have goals and wonders in their future.

Raise HKUST student awareness on food waste problem in HK by inviting the founder of the Hong Kong Organic Waste Recycling Center to share his story about starting a business of selling organic products converted from food waste.

Show support and appreciation to janitors at HKUST by giving them bottle or can drinks which were donated by students.
Professional Leader’s Focus at Engineering Commons

This area is designated for students to learn leadership. It provides a number of different text resources about leadership to students:

- A mini-library containing leadership books and renowned leader biographies
- Recommended articles about leadership and related issues
- Showcase introduction of leadership biographies of recognized leaders who are/have been engineers

Also the cozy couch “lounge” is intended to encourage students to have open discussions about their projects or any engineering topics, providing them with opportunities to practice leadership skills. In addition, a large monitor is installed to show videos or presentations about leadership. It can be used by students to show their presentations for meeting or discussion purpose.

Upcoming Events

Off-campus service activities
Volunteer recruitment from Mymailbox 852 (Mails from Hearts!!)

Mymailbox852 was established in November, 2013 with a motto - *Spreading Happiness & Love through Letters*. It is now recruiting VOLUNTEERS to write postcards to DSE candidates (i.e., high school graduates), to encourage them through hand-written words on postcards. The only requirement for volunteers is PASSION!

If you are interested, please contact Miss Diana Lee at 6282-8921, mymailbox852@yahoo.com.hk

For more details, please visit the Facebook page: www.fb.com/mymailbox852
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