The Minor (...)but very important...) Sheet

Designed to help you differentiate between three great Minors: Engineering Leadership Development (ELDM), Product Realization (PROD) and Engineering Entrepreneurship (E-SHIP)

Engineering Leadership Development Minor (ELDM)  http://www.eldm.psu.edu/
Director: Donnie Horner, 213-E Hammond (863-9074) (dhhjr@psu.edu)
http://www.ecsel.psu.edu/edg/contacts/horner.html
Number of Credits: 18
Core Courses (12 credits): Introductory Leadership (ENGR 408) / Leadership in Organizations (ENGR 409) / Experiential Leadership (ENGR 493) / Technology Based Entrepreneurship (ENGR 407) / Creativity, Innovation, & Change (STS 497B)
Elective Courses (6 credits): Two 200/300/400-level courses from a variety of fields, such as co-ops, psychology, sociology, political science, history, business, etc.
Focus Majors: Engineering & Business, but open to ALL University Majors
Affiliate Student Group: Engineering Leadership Development Unlimited (ELDU)
Who Should Take This Minor? Students interested in learning about all aspects of leadership, including how to be a better leader, how to lead groups, teams, & large organizations. Emphasis is on personal development & real-world application of leadership concepts, roles, principles, practices, and techniques, as well as high performance team training, case analysis, and creativity, innovation, and change.

Product Realization Minor (PROD)  http://www.me.psu.edu/lamancusa/jslpages/prminor.htm
Contact: Timothy W. Simpson  tws8@psu.edu  863-7136
Number of Credits: 21
Core Courses (9 credits): Product Dissection (ME288) / Technology-Based Entrepreneurship (ENGR 407) / Concurrent Engineering (IE466)
Supporting Courses (12 credits): student selects from courses in manufacturing processes, quality engineering, engineering design.
Focus Majors: Engineering
Affiliate Student Groups: ASME, IIE, SAE

Who should take this Minor? Students interested in concurrent engineering and state-of-the-art product/process design and manufacturing. Minor offers hands-on experience in product dissection, integrated design and manufacturing, project management, quality function deployment, capturing customer requirements, and understanding the role of management in the product design and realization process.

Engineering Entrepreneurship (E-SHIP)  http://e-ship.ecsel.psu.edu
Contact: Elizabeth (Liz) Kisenwether  exk13@psu.edu  863-1531
Number of Credits: 18
Core Courses (12 credits): Entrepreneurial Leadership (ENGR310) / Technology-Based Entrepreneurship (ENGR 407) / Entrepreneurship and New Product Development (ENTR430). In addition, non-business students take E-SHIP Business Basics (ENGR411) / business students take Introduction to Engineering Design Process (QMM492).
Supporting Courses (6 credits): Courses selected to be broadening courses outside of your major in technology entrepreneurship skill areas, including courses in engineering, business, IST, Science, Technology and Society. Additional product and venture creation opportunities provided through ENGR496 credits; projects defined by students, companies or inventors.
Focus Majors: Engineering, Business and IST (Information Sciences and Technology), but open to all majors
Affiliate Student Group: ACE/SIFE (Association of Collegiate Entrepreneurs/Students in Free Enterprise)
Who should take this Minor? Students interested in developing skills to be product innovation leaders in technology-focused companies. Minor provides “cross-skills” courses for students to function and thrive in multi-disciplinary teams: engineering and IST students get business basics in finance, marketing and intellectual property, and business students learn the basics of engineering design process and product-focused teamwork.