## ATK capitalizes on top UCSB engineering students through Capstone

*ATK Space Systems – Goleta(ATK-Goleta) is an independent provider of mission enabling deployable space systems. It is prized by its parent corporation, ATK, as an innovator in solar arrays, deployable booms, and related structures and mechanisms. Its exceptional team of engineering, manufacturing and product assurance personnel has had 100% flight success on all space hardware they have manufactured. Given the fact that ATK-Goleta is a key provider of solar array and deployable booms for many of the nation's space-orbiting devices/satellites, they need to have a consistent source of top technical talent. And, not surprisingly, more than 25% of all ATK employees attended or graduated from UCSB, which is very nearby.*

*The leadership at ATK-Goleta believes that its proximity to UCSB provides an invaluable resource for recruitment and collaboration and this has truly been a primary contributor to ATK's growth and success over the last 25 years. Dave Messner, Vice President & General Manager at ATK-Goleta, said that by partnering with the Mechanical Engineering (ME) department, by both being on the department's Industrial Advisory Board and working within the Senior Capstone program (more below), the growth and alignment between ATK and UCSB has been astounding. Courses offered by the ME department have grown significantly and improved over the last several years. Due to the mutual partnership, ME department graduates from UCSB now comprise over 40% of the management and engineering staff at ATK-Goleta. And, UCSB alumni hires outnumber the next closest college by more than 3 to 1. Coincidentally, the ME department ranking has consistently improved and now the department is ranked #5 nationally by the National Academies' National Research Council.*

*Many companies working with the College of Engineering at UCSB have an excellent opinion of the capstone programs hosted by the different departments. In Messner's words "the capstone program is a great motivational and teaching tool and invites the opportunity for industry, student and faculty to work together and get to know each other." Each year senior students in Mechanical, Computer Engineering, as well as Computer Science enroll in a capstone course to develop solutions to real-world engineering challenges involving independent student projects and industry-sponsored collaborations. Companies are able to mentor students as they work to complete a team project, many of which are proposed by companies. This provides industry with an excellent opportunity to foster a collaborative team, see natural leaders emerge from the team, and observe how students perform under "real-world" project timelines and deadlines. A spectrum of companies have successfully collaborated with these student teams, including start-ups like Eucalyptus Systems, smaller companies, such as Novacoast, to big companies like ATK, Mentor Graphics, Medtronic, and many more.*

*ATK-Goleta has participated in an ME capstone every year since 2006. There have been a variety of projects they have seen through the capstone program. Some include, solar array off-loader design development to reduce friction to better simulate zero-g operations, solar array hinge mechanism in order to design a simple, elegant, high-stiffness, zero dead-band latch; wireless deployment tracker; and two projects on composite rods. In many situations, the students who participated with industry in these projects have gone on to full-time positions with the sponsor company. What has been the most rewarding is the contribution and mentoring the student teams receive by both faculty and employees of the participating companies. "Capstone courses are truly a way to get a valuable snap shot of the student body at UCSB", says Messner.*

To learn more about how your company can work with UC Santa Barbara, contact Leslie Edwards (805-893-3944/edwards@engineering.ucsb.edu) or Chris Russo (805-893-5544/crusso@engineering.ucsb.edu) in the Corporate Affiliate Programs office.