



### **Brown Center for Innovation and Entrepreneurship**



Indian River State College is connecting training in alternative energies and new technologies with services for business start-ups to create a powerful launching pad for new jobs on the Research Coast. This combination of resources is based in the Brown Center for Innovation and Entrepreneurship at the College's Main Campus in Fort Pierce. The multi-purpose Center prepares students for cutting-edge careers, while the Virtual Incubator simultaneously offers a wide range of services for entrepreneurs. Built to Silver LEED national standards for environmental construction, the \$21.5 million Center is partially powered by a solar panel field, thin film solar roofing, and wind turbines. Training laboratories focus on nuclear energy, alternative energies, sustainable building design and construction, photonics/optics, and nanotechnology applications among other technologies.

**Alternative Energies Suite** - The Alternative Energies laboratory concentrates on the teaching of renewable energies, including PV and Thermal training systems, small wind, hydrogen fuel cells, bio-fuels, and other alternative energy resources. In partnership with research institutions, this lab provides a training ground for the construction industry to prepare installers of photovoltaic panels and heating systems, as well as students pursuing careers in various engineering or building construction fields and those specializing in energy resources. The Alternative Energies Laboratory takes advantage of its adjacency to the Sustainable Building Design Laboratory by demonstrating the integration of energy-saving systems for residential and commercial use.

**Sustainable Building Design Suite** - Residential, commercial and industrial buildings use a great part of the energy that we consume. Improving the efficiency of building systems, materials and methods can substantially reduce maintenance costs and contribute to a more sustainable environment. This suite provides training resources to install efficient cooling and heating systems, including geothermal solutions, effective insulation, photovoltaic panels, energy storage solutions, lighting, and sustainable landscaping techniques. In this demonstration lab, industry and students study and analyze multiple building systems including structures, walls, doors and windows, heating and cooling and plumbing, roofing and finish solutions. A net-zero house built inside the lab helps demonstrate innovative construction techniques and the integration of emerging fields into existing construction methods.

The Brown Center is also home to the Regional Center for Nuclear Education and Training (RCNET), a National Science Foundation Advanced Technological Education Center.

### **Associate of Science in Building Construction Technology - Sustainable Building Practices Track**

The Building Construction Technology program emphasizes practical application of management competencies needed by estimators, construction planners, field supervisors, project managers, sales managers, facility directors and managers, builders, and various entrepreneurs. Students learn

construction management techniques, estimating, blueprint interpretation, building codes, energy conservation, construction accounting and office practices.

The Sustainable Building Practices track includes 6 courses (18 credits) and is a subset of the AS degree.

- ETM 1111 Energy in Building Design
- BCN 1272 Plans Interpretation - Residential
- BCN 2040 Zero Energy Building Design and Construction
- BCN 2592 Residential Energy Fundamentals
- BCN 2598 Sustainable Building Systems
- BCN 2599 Green Building and Energy Efficiency

### **Associate of Science in Electrical Power Technology**



The nuclear power industry is experiencing a period of unprecedented need for power plant technicians both nationally and within the state of Florida. The Nuclear Regulatory Commission (NRC) estimates that more than 41,000 new technicians will be needed over the next 20 years around the country, with starting salaries well above the national average. The Power Plant Technology Institute at Indian River State College offers specializations in electrical, mechanical, instrumentation and control, radiation protection and transmission and substation.

This training partnership between IRSC and Florida Power & Light, prepares students for a high-paying career in the energy generation industry. With a graduation rate over 95%, this program has placed graduates in nuclear and fossil utilities in Florida and around the country since 2008, with salaries over \$50,000 per year.

### **Associate of Applied Science in Electronics Engineering Technology**

Lasers, fiber-optics, robotics, automation, wireless networks, biomedical equipment, space exploration, and modern electric power generation are cutting-edge technologies made possible by electronic engineering. The demand for technicians in these fields is at an all-time high. Starting salaries for entry-level technicians in any of these fields are higher than the national average. The Electronics Engineering Technology degree offers specialization options in lasers and photonics, robotics and industrial automation, power plant technology, computer technology, and telecommunications.



### **Solar Energy Certificate**

Under the Electronics Engineering program, IRSC offers a 12 credit hour certificate in solar energy preparing entry level technicians who can install both Thermal and PV systems. This certificate includes training in Solar Thermal and Photovoltaic systems, and is offered as college credit or professional development through our Corporate and Community Training Institute in an accelerated six day format. All courses consist of classroom instruction and hands on labs where solar systems are built, tested, and commissioned.

### **Regional Center for Nuclear Education & Training RCNET**



Due to growth, an aging workforce, international competition, and natural attrition the nuclear industry in the United States is experiencing unprecedented workforce demands. In August of 2011, NSF established the Regional Center for Nuclear Education and Training (RCNET) to address these workforce demands in a unified and systematic way. RCNET is located at Indian River State College in Fort Pierce, FL and is a consortium of 46 colleges and universities, 35 industry partners, and multiple agency and other partners.

RCNET's primary focus is on two-year college training and it involves partnerships between academic institutions and employers to promote improvement in the education of nuclear technicians at the undergraduate and secondary school levels. RCNET is also responsible for curriculum development, professional development of college faculty and secondary school teachers, career pathways to two-year colleges from secondary schools and from two-year colleges to four-year institutions, and providing standardized quality resources to schools across the region.