| PROPOSED DEGREE PROGRAMS | |
|---|---|
| **College of Innovation and Technology** | |
| **Degree** | **Fields** |
| Bachelor's and Master's of Advanced Technology | Cloud Virtualization & Big Data Analytics |
| Bachelor's and Master's of Science | Logistics, Materials and Supply Chain |
| Bachelor's and Master's of Computer Science and Information Technology | Cyber Gaming, Information Assurance and Cyber Security |
| **College of Engineering** | |
| **Degree** | **Fields** |
| Bachelor's and Master's in Electrical and Computer Engineering | Control Systems, Magnetics, Digital Systems, Electrodynamics, Semiconductors |
| Bachelor's and Master's in Industrial Engineering | Multifunctional Materials Development, Geometric Dimensioning and Tolerancing, Motion Control |

**Program Characteristics**

1. Real-time response to employers' needs
2. Focus on the T & E in STEM (Technology and Engineering)
3. Incorporate leadership, finance and management training into all programs
4. Undergraduate research required of all students in all programs beginning the sophomore year
5. Students will take engineering courses beginning their freshman year in order to improve retention (currently about 50% of engineering students drop out in the first two years).
6. Provide strong in class and out of class student support beginning with the freshman year.
7. 75% full-time job placement after graduation

**Faculty**

1. Non-tenure employment models with incentive-based contracts
2. Capacity for using emerging technologies
3. Emphasis on teaching as well as research
4. Integrated (Team) teaching and cross-disciplinary instruction
5. Practical applied science and engineering experience
6. Leadership and management experience

**Student Recruitment**

1. Agreements with STEM charter and magnet schools to serve as feeders.
2. International Students: South America, Far East
3. Summer program modeled after the Duke University TIP Program
4. 2+2 feeder programs with state colleges

**Program Characteristics**

*Real-time Response To Employer* Needs - Market conditions change rapidly and Florida Polytechnic University will be able to create new programs and modify existing programs in real-time in order to provide the high-tech workforce that companies need.

*Focus on the T&E in STEM* – In order to be adaptable to the needs of industry, Florida Polytechnic University is being developed as a Limited-Small-Focused university. Our limited number of high-tech programs, small student body and faculty allow us to produce graduates who are prepared to work immediately after graduation.

*Incorporating Education in Leadership, Finance & Management* – In response to Florida high-tech businesses, Florida Polytechnic University will incorporate extensive education in leadership, finance and management into all programs, preparing the students to assume leadership roles as well as front line positions.

*Undergraduate Research* – Students at Florida Polytechnic University will begin engaging in research during their sophomore year. This will give them the experience they need to excel in the workplace.

*Engineering Courses in the First Two Years* – Florida Polytechnic University will increase the typical first and second year retention rates of engineering students by incorporating engineering courses into the first two years of the program and providing enhanced student academic support beginning with the first course that its students take.

*Strong Student Support* – Students at Florida Polytechnic University will enjoy increased levels of support in all phases of student life. This level of support will allow students to engage more effectively in their academic pursuits.

*Job Placement Rate of 75%* - Florida Polytechnic University will partner with high-tech companies throughout the state to provide a direct pipeline of well-educated, ready to work graduates. Our philosophy centers around educating students for the job market with the skills Florida employers need to compete in the global market.

**Faculty**

*Non-Tenure Employment Model* – Faculty at Florida Polytechnic University will have multi-year contracts with measureable performance criteria. They will be rewarded for performance excellence in the classroom and in conducting their research.

*Use of Emerging Technologies* - Faculty at Florida Polytechnic University will be required to incorporate the latest proven technology as a component of their teaching.

*Emphasis on Teaching and Research* - Florida Polytechnic University faculty will be required to teach in the classroom and be involved in high-level applied research.

*Integrated (Team) Teaching and Cross-disciplinary Instruction* – Faculty at Florida Polytechnic University will collaborate with faculty in other disciplines to ensure that students learn how to integrate knowledge from various fields, as students will need to be able to do when employed.

_Applied Science and Engineering Experience_ – Faculty at Florida Polytechnic University must have experience in teaching and conducting research in applied science and engineering.

_Leadership and Management Experience_ - Florida Polytechnic University will recruit faculty who have exhibited leadership and management skills in their professions so that they can model and teach those skills to the students, regardless of the program.

**Student Recruitment**

_Agreements with STEM charter and magnet schools_ – Administrators at Florida Polytechnic University have started conversations with public, charter and magnet schools that have outstanding STEM programs as a part of their recruitment effort.

_International Students: South America, Far East_ – In addition to recruiting talented high school students from Florida and the rest of America, Florida Polytechnic University will seek to bring to its campus some of the brightest international students from economic partners in South American and the Far East.

_Summer Academic Program_ - Florida Polytechnic University will establish a summer program for STEM talented middle and high school students, modeled after Duke University's TIP Program. Middle and high school students will spend several weeks every summer on the university's campus.

_State College 2+2 Feeder Programs_ - Florida Polytechnic University will establish partnerships with state colleges and will grant admission to students who earn Associate of Science degrees in specially designed programs that prepare them for upper level academic work at Florida Polytechnic University.