



UCF High-impact Facilities

These facilities support UCF's

- ✓ Path to pre-eminence
- ✓ State performance funding
- ✓ Collective Impact Strategic Plan



Engineering I Renovation



**Interdisciplinary Research
and Incubator Facility**



John C. Hitt Library



UNIVERSITY OF CENTRAL FLORIDA

UCF – Engineering Building I \$16M





UCF – Engineering Building I \$16M

ROI

- ✓ Supports UCF reaching key metrics for preeminence by 2021
- ✓ Contributes to UCF's distinction as producing the second-largest number of STEM graduates in the State University System
- ✓ Bolsters UCF's engineering program, which produces 1,833 graduates a year with top entry-level incomes averaging \$59,000 for bachelor's degrees and \$78,700 for master's degrees
- ✓ Helps UCF to provide more graduates to aerospace and defense companies than any other university in the U.S.
- ✓ Energizes an engineering program that secures one of every four research dollars awarded to UCF
- ✓ Increases annual research expenditures by \$1.2 million within two years

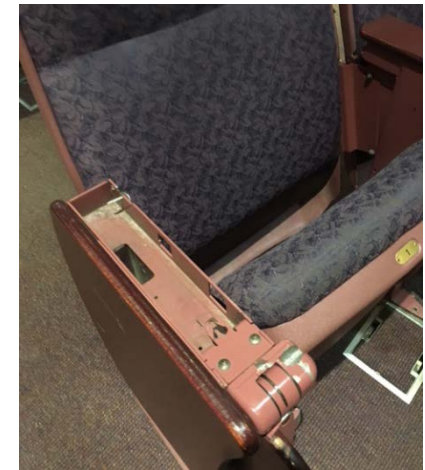




UCF – Engineering Building I \$16M

DEMAND METRICS

- ✓ Meets critical needs of more than 10,200 students in the largest college of its kind in Florida and 9th largest in the nation
- ✓ Supplies talent for Central Florida workforce demands projected by 2023 to grow by 14 percent for engineering professions and 16 percent for computer occupations
- ✓ Supports college rankings:
 - 39th in the country for Industrial Engineering
 - 43rd among public institutions (2nd in Florida)





UCF – Engineering Building I \$16M

DEMAND METRICS

- ✓ Addresses building renovation issues identified by independent study:
 - Mechanical, electrical, plumbing systems beyond end-of-life
 - Life safety and Americans with Disabilities Act deficiencies
 - Tapped out electrical capacity, with no way to support service for new additions or laboratory equipment
 - Unsafe exterior brick veneer
 - Unserviceable, obsolete electronic locking system

- ✓ Milestones:
 - Anticipated construction start date: December 2016
 - Anticipated completion date: May 2017





UCF – Engineering Building I \$16M

BUDGET

REQUEST

<u>Total project budget:</u>	<u>\$20,667,375</u>
Prior funding	\$3,620,723
Request for 2017-2018	\$15,986,913
Request for 2018-2019	\$1,059,739





UNIVERSITY OF CENTRAL FLORIDA

UCF – Interdisciplinary Research and Incubator Facility



Conceptual rendering



UCF – Interdisciplinary Research and Incubator Facility \$32.2M

ROI

- ✓ Critical to helping UCF reach key metrics goals for preeminence by 2021
- ✓ Supports programs with \$26 million in external funding and potentially increases research funding by \$20 million annually within 3-5 years
- ✓ Enhances Florida's growing high-tech economy and assists the state in producing well-paying jobs
- ✓ Enables UCF to excel in patent production (ranked 19th in the world among public universities, and 40th in the world for U.S. utility patents secured in 2015)
- ✓ Yields \$5 in return to the state for every \$1 invested
- ✓ Generates \$400 to \$600 per square foot per year in external funding, based on past experience

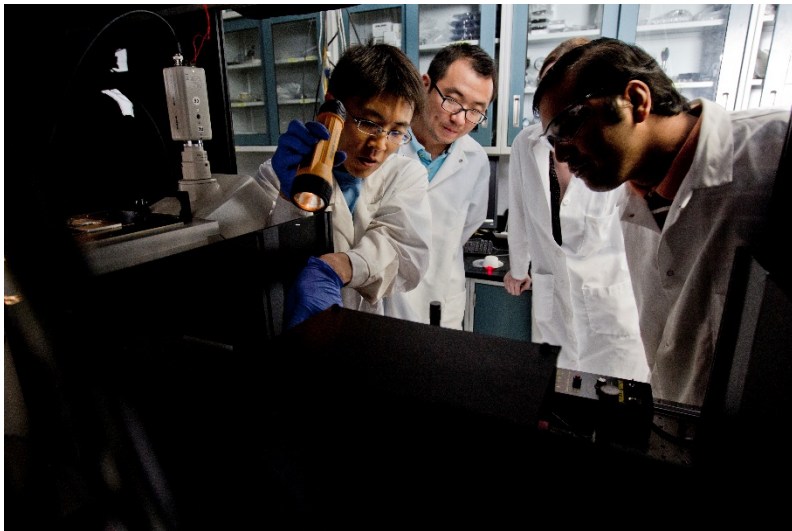




UCF – Interdisciplinary Research and Incubator Facility \$32.2M

FUTURE ROI

- ✓ Enables UCF's world-class incubation program to build on the 4,000 jobs created and the \$2.5 billion impact made during the program's first 15 years
- ✓ Produces homegrown, technology-based companies, 82% of which stay in the region, realizing an average ROI of 450% to the region in increased tax base alone, as reported by The National Business Incubator Association

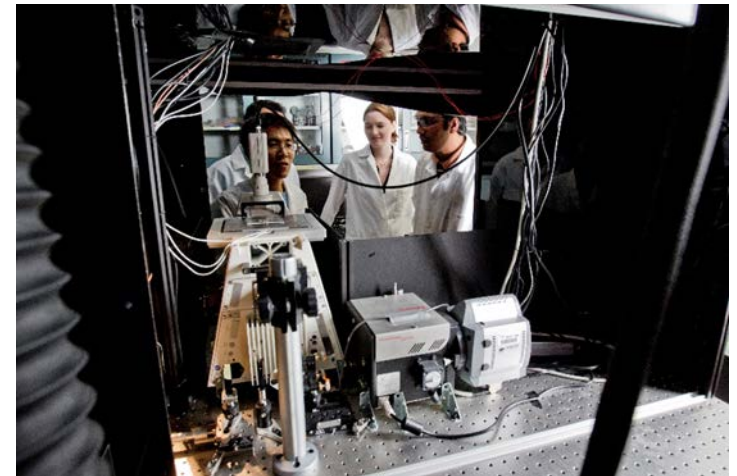




UCF – Interdisciplinary Research and Incubator Facility \$32.2M

DEMAND METRICS

- ✓ Reduces UCF's research space deficit of 629,057 square feet by 11%
- ✓ Contributes to Metric 8A of the Performance Funding Model for graduate programs in Nanotechnology (MS), Optics (MS), and Optics (Ph.D)
- ✓ Houses an additional 80 research faculty and supports programs in nano-science technology, advanced materials processing and analysis, robotics, energy research, sustainability research, and 5 faculty cluster units
- ✓ Serves as a recruiting tool for new faculty; increases UCF's ability to fill long-vacant faculty lines that resulted from the space deficit; and increases opportunities to be nationally ranked
- ✓ Positions UCF for large research projects and industry partnerships
- ✓ Milestones:
 - Completed design and initiated construction: January 2016
 - Anticipated completion date: December 2017





FACULTY CLUSTER INITIATIVES

- ✓ Houses 5 clusters to facilitate the design of new models of research, teaching, and learning that blur the boundaries of traditional disciplines
 - Rational Design of Materials for Energy Conversion and Propulsion
 - Resilient, Intelligent and Sustainable Energy Systems
 - Sustainable Coastal Systems
 - Cyber Security and Privacy
 - Human Augmentation Robotics
- ✓ Focuses on solving tomorrow's most challenging scientific and societal problems through use of UCF's institutional strengths
- ✓ Lowers barriers to innovation and unleashes product creativity





UCF – Interdisciplinary Research and Incubator Facility \$32.2M

BUDGET

REQUEST

<u>Total project budget:</u>	<u>\$46,614,853</u>
Funded by UCF	\$8,331,198
Request for 2017-2018	\$32,240,988
Request for 2018-2019	\$6,042,667

*Differs from CIP due to importance and urgency



VIEW LOOKING NORTHWEST - PHASE 1

PONIKVAR
ASSOCIATES

Plant Operations and Maintenance (annual estimate): \$1,490,400



UNIVERSITY OF CENTRAL FLORIDA

UCF – John C. Hitt Library Renovation Phases I and II \$6.9M





UCF – John C. Hitt Library Renovation Phases I and II \$6.9M

ROI

- ✓ Supports UCF path to preeminence by promoting student success and enhancing learning resources
- ✓ Expands and renovates to 21st-century standards a structure built in 1967 and last expanded in 1984 when UCF had 48,000 fewer students
- ✓ Serves as an extension of the classroom, better leveraging coveted campus instructional space
- ✓ Avoids \$52.5 million in costs through efficient design and true value engineering
- ✓ Builds deep collections, provides research services to students and faculty, and develops next-generation digital library tools
- ✓ Results in higher GPAs (3.20 vs. 3.05) and more A grades (48.18% vs. 42.61%) for Library users vs. non-users





UCF – John C. Hitt Library Renovation Phases I and II \$6.9M

DEMAND METRICS

- ✓ Requested by students as their top (and ONLY) CITF project since 2012
- ✓ Accommodates almost 1.3 million visits per year, 105 hours per week, with a typical mid-term week being 39,000 visits
- ✓ Will increase gross square footage from 226,506 to 269,259 and NASF from 144,097 to 174,097 and add automated retrieval of 1.25 million volumes





UCF – John C. Hitt Library Renovation Phases I and II \$6.9M

PHASE I – Automated Retrieval Center

- ✓ Automated Retrieval Center building construction and installation of robotic cranes
 - Retains 1.25 million-volume collection onsite for quick access (minutes vs. hours or days)
 - Converts collection space to user space
 - Houses 80% of the collection, freeing space for other uses
 - Allows for virtual browsing of closed stacks
 - Enables increased user seating without a significant increase in footprint
- ✓ Fire and safety code Improvements
 - Upgrades and adds fire suppression sprinklers
 - Replaces stairwell railings
- ✓ Connects existing library with the retrieval center
- ✓ Adds 42,753 gross square feet to the library
- ✓ Provides quiet study space and renovates ancillary spaces
- ✓ Milestones:
 - Under construction, with anticipated completion date of December 2017





UCF – John C. Hitt Library Renovation Phases I and II

PHASE II – Renovation

- ✓ Upgrades electrical, lighting, HVAC, plumbing, fire alarm, elevators, egress, restrooms, and telecommunications network
- ✓ Redesigns interior, provides for more efficient and flexible use of space
- ✓ Provides seating environments that will appeal to every student
 - Adds 1,491 seats, increasing seating 78% to 3,394
 - Triples the number of group study rooms
 - More than doubles the number of technology workstations
 - Provides collaborative and quiet study areas
- ✓ Improves accessibility
- ✓ Increases space for collections
- ✓ Milestones:
 - Construction from December 2019 to April 2021, contingent upon funding





UCF – John C. Hitt Library Phases I and II \$6.9M

BUDGET

REQUEST

Total project budget \$77,491,676

Phase I project budget (CITF): \$38,772,476

Prior Funding \$31,917,907

Request for 2017-2018 \$6,854,569

Phase II project budget (CITF): \$38,719,200

Request for 2018-2019 \$38,719,200

