UF Engineering Innovation NEXUS Renovation & Addition to Nuclear Sciences Building $25 M

Design/Construction Schedule

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RETURN ON INVESTMENT (ROI)

✓ Will double engineering startup companies from 5 to 10 per year
✓ Five-year forecast of $4 million increase in industry research funding
✓ $10 million increase in multidisciplinary research funding
✓ Will provide necessary infrastructure and focus to recruit and support high-tech companies in Florida (Engineering Experiment Station)
✓ Will improve state economic competitiveness
✓ Renovations to 50-year old facility and new utility infrastructure core will increase efficiencies and reduce costs
DEMAND METRICS

✓ Projected five-year increase of 300 engineering degrees through retention and recruiting
✓ Will increase STEM research in Biotechnology and Advanced Manufacturing
✓ Facilities to transform engineering education, involving Global Innovation Network of alumni, experts and student/faculty teams in pursuing real-world team approach to innovation
✓ Updating the university’s 50-year old facility will re-purpose existing space, providing for cutting-edge education and research opportunities and increasing the number of students earning engineering degrees
### REQUEST

**Total project budget:** $53M

- **UF Funds:** $4M
- **Appropriated 2015-16:** $6M
- **Request for 2016-17:** $25M
- **Request for 2017-18:** $18M

- ✓ Anticipated construction start date: August 2016
- ✓ Estimated completion date: March 2018
NORMAN HALL REMODELING/CONFERENCE CENTER ADDITION
$24.4 M
STATEWIDE IMPACT

✓ Impact in every public high school and all 67 major school districts across state, enhancing learning of 1 million 6th–12th grade math students and providing professional development to 10,000 math teachers via Algebra Nation and Math Nation

✓ Empowering 55,000 early learning teachers serving 400,000 children across entire state with FL Early Learning Florida Initiative

✓ Improving effectiveness of teachers and school leaders serving students with disabilities across Florida and 14 other states via $25M federally-funded CEEDAR Center

✓ Producing outstanding teachers for state’s classrooms while blazing the trail for improved educator preparation via FLDOE-funded Center of Excellence in Elementary Teacher Preparation
STATEWIDE IMPACT (cont)

✓ One in 3 children are not prepared to learn when starting kindergarten; college hosting *For the Life of a Child: Early Childhood Health, Education, & Policy National Summit* to produce solutions for all young children

✓ *Online Learning Institute* supporting effectiveness of UF Online’s statewide mission

✓ Employment outlook: Very high demand due to teacher shortage; exceptionally high demand for STEM, special education, and language specialties. Strong overall employment forecast = 20% growth over next 5 years

✓ Starting salaries: Undergraduate = $36K (9-month), graduate = $56K
RETURN ON INVESTMENT (ROI)

✓ College ranked #1 among COEs in Florida, #1 among public institutions in southeastern region of nation, and #20 among all public universities in nation.

Five Top 20 academic programs

✓ 84 projects summing to $86.3M in active externally-funded projects, renovations will increase capacity for greater funded research and training

✓ Growing research output requires improved laboratories and infrastructure

✓ Expansion of e-learning/distance outreach to FL students and educators requires updated production space

✓ Ability to host statewide professional development seminars supporting educational leadership and reform

✓ Implement learning/teaching supports for next generation curriculum areas
ROI - CONTINUED

✓ Create secure facilities for confidential state and federal educational policy analyses e-databases
✓ Provide demonstration site for solving statewide critical shortage areas of STEM, foreign language, and special education educators
✓ Facility gains significant energy efficiencies and reduced operational costs via upgraded mechanical systems and building envelope (roof, windows, brick) repairs
✓ Eliminate significant critical deferred maintenance backlog for 82-year-old facility, with renovated facility complying with fire code and ADA standards
✓ Cost savings from renovation, with existing facility transformed into modern, efficient space
✓ Listed on National Historic Registry, Norman Hall is cornerstone of UF; restoration/upgrades will enable continued service in support Florida’s critical educational needs
DEMAND METRICS

✓ Constructed as K-12 school in 1934, facility is outdated and hazardous–unsuitable for preparing top educators, leaders, reformers, & innovators

✓ Current enrollment: 2,800 across 28 undergraduate and graduate programs
   Projected enrollment growth: 27% over five years

✓ COE develops innovations in STEM education and advances technology-assisted instruction addressing needs of all learners across the state (e.g., Algebra Nation, Math Nation, Early Learning Florida, and Online Learning Institute)

✓ Home to national centers including: Lastinger Center for Learning; Anita Zucker Center for Excellence in Early Childhood Studies; Center for Disability Studies & Outreach; Institute for Higher Education; and Collaboration for Effective Educator Development, Accountability & Reform Center

✓ Continuing growth in externally-funded research currently at $86.3M, outstanding 99% growth over last 4 years
REQUEST

Total project budget: $24.4M
Request for 2016-17 $8M

Anticipated construction start date: April 2017
Estimated completion date: August 2019
IFAS SCIENCE ACADEMIC BUILDING $15.8 M

New building space: 25,125 SQ FT
Renovation of existing space: 8,600 SQ FT
RETURN ON INVESTMENT (ROI)

✓ Recovery of more than 3,200 credit hours lost each year in STEM majors due to teaching lab and classroom deficiencies
✓ Projected 5-year increase of 200 degrees in STEM majors through increased credit hours, faculty retention, and recruiting
✓ Addition of new teaching space and repurpose of existing space will provide for maximization of usage, increasing the number of degree-earning STEM students, and creation of cutting-edge education and research opportunities
✓ Creation of quality wet laboratory research space will greatly enhance competitive recruitment of preeminence faculty

Lost tuition value of 3200 STEM credit hours = $477,568
DEMAND METRICS

- Space quality issues – including a need for larger lecture-style classrooms and modern teaching laboratories – limit the type and number of classes now offered for STEM majors.
- AgCareers.com reports 15% increase in national job postings in 2014; more than 7000 jobs posted in southeast; USDA expects 57,900 average annual job openings in agriculture and related fields.
- UF departments of horticulture science, plant pathology, environmental horticulture, and microbiology and cell science (all in BOG Strategic Programs of Emphasis of Economic Development-STEM and Performance Funding Metrics) have outgrown space for teaching and research.

Florida agriculture industry employment increased 8.7% over previous year; total $148.5B in sales.
REQUEST
Total project budget: $15.8M
  Request for 2016-17 $8M

✓ Anticipated construction start date: March 2017

✓ Estimated completion date: April 2018
UF/Florida Museum of Natural History Special Collections and Research Building $32.8 M
FLORIDA MUSEUM IMPACT DATA

✓ $74 million annual economic impact on Florida

✓ Top 3 university-based science museum in the US (Harvard, Yale, UF)

✓ 40 million specimens/objects; top 5 largest collection in US, top 10 worldwide

✓ #1 in the US in Bioinformatics; leads NSF initiative to create a national repository of digitized biological collections

✓ Museum faculty manage over $30 million in grant-funded projects/year

✓ Museum faculty train over 250 graduate students/year for careers in industry, scientific research, higher education and government service
MAJOR THREATS

✓ Current facility out of compliance with State Fire Marshal codes; cannot be corrected

✓ Health and safety of students and employees at risk

✓ State natural history collections at risk

✓ Potential loss of national accreditation

✓ Acute space shortage for research collections results in multiple off-site warehouse leases
UF/Florida Museum of Natural History Special Collections and Research Building $32.8 M

RETURN ON INVESTMENT (ROI)

✓ **State-of-the-art facility** for Florida’s biological/genetic collections used by government agencies and in scientific research

✓ **Support research affecting Florida industries:** water/reef quality, ocean health, crop pests, agricultural/natural pollinators, invasive species

✓ **Support STEM research programs** and increase graduate training by UF Preeminence hires in Biodiversity and Big Data

✓ **$10 million increase in research funding** in 5 years

✓ **Remedy a serious threat to the health and safety** of UF students, faculty and staff
RETURN ON INVESTMENT (ROI)

✓ 5-year increase of 100 STEM graduate degrees in emerging fields of Bioinformatics, Molecular Biology/Genetics

✓ Enhance STEM research on global issues: biodiversity, environmental health, climate/ecosystem change

✓ State-of-the-art labs and technology facilitate multidisciplinary teams conducting cutting-edge research with international colleagues in real time

✓ Allow FLMNH to re-purpose existing space for new UF Biodiversity Institute, iDigBio NSF project and expanding collections; create additional space for students conducting collections-based research
UF/Florida Museum of Natural History Special Collections and Research Building $32.8 M

REQUEST

- Total project budget request $32.8M
- Request for 2016-17 $10M
- Request for 2017-18 $22.8M

- Anticipated construction start date: September 2017
- Estimated completion date: December 2019