

2011-2012 Science

Section	Document Name
Goals and Objectives	• School of Science Annual Report 2011-2012 Final.pdf

Mission

The IUPUI School of Science provides outstanding basic science education for all IUPUI students, education in depth for students in our School, and engages in fundamental and applied research in the physical, biological, mathematical, and psychological sciences in order to increase scientific knowledge and advance the development of the life sciences at IUPUI and in the State of Indiana.

Goals and Objectives

1. Build a Strong and Diverse Faculty

1. Build a strong and diverse faculty

Campus Planning Theme: Teaching and Learning, Research, Scholarship and Creative Activity

Secondary Goals:

Sub Unit: None

Time Frame: on going

Actions taken for 2011-2012:

1. Faculty Recruitment, Faculty Hiring: Hired 12 new teaching and research faculty based on potential for teaching and research excellence

- a. 5 assistant Professors (1 each in Physics, Chemistry and Chemical Biology, Psychology, and 2 in Earth Sciences)
 - b. 1 Associate Professor (Psychology)
 - c. 1 Academic Specialist and 3 Lecturers (Biology, Chemistry and Chemical Biology, Earth Sciences, Psychology)
 - d. 2 Full Professor/Chair positions (Chemistry and Chemical Biology and Psychology)
- Margaret “Peggy” Stockdale joined the Psychology department as chair and professor of psychology. Stockdale, who comes to IUPUI after a 22-year career at Southern Illinois University Carbondale, is a leading expert in employment justice and gender issues in the workplace, primarily sex discrimination and sexual harassment.
 - Nigel Richards joins the Department of Chemistry and Chemical Biology as a professor of chemistry and faculty chair. Richards, who comes to IUPUI after a 20-year career at the University of Florida, brings a national reputation as a scholar and researcher in the fields of experimental and computational enzymology.
 - An interim chair of the Mathematical Sciences Department, Dr. Jyoti Sarkar, was named from within the ranks of the department faculty

2. Diversity of Faculty: Seven new faculty hires were female, and two of the women are also members of minority groups underrepresented in science.

- 3. School Leadership:** N. Douglas Lees, Ph.D., former chair of the Department of Biology, has been named associate dean for planning and finance at the School of Science effective June 1, 2011. In this newly created position, Dr. Lees will work with the dean in allocation of faculty, staff, and other personnel lines and financial, facility, and program resources. He will also assist with annual budget planning and assessment as well as fiscal policy development.
4. Continued health science collaborations with the IU School of Medicine to create interdisciplinary research programs for School of Science faculty, graduate students, and research opportunities for undergraduates.
5. Continued financial planning that will permit ongoing hiring of faculty in strategic areas.
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Evidence of Progress for 2011-2012:

1. Faculty Recruitment, Faculty Hiring:

- a. Over the past four years, the school has hired 47 tenured or tenure-track faculty who will contribute significantly to the teaching and research missions.
- b. Many new faculty hires came with funding or received external funding shortly after arriving.

2. Faculty Support:

- a. Start-up packages for new faculty were competitive with national standards.
- b. Implemented a research bonus plan to encourage external funding to recruit and retain faculty. Two faculty members received research incentive bonuses.
- c. Graduate Education: Increased school level support for graduate student funding.

3. Research, Scholarship, and Creative activity:

- a. Research expenditures were maintained at a nearly steady level, despite a challenging federal funding environment. This is attributable in part to the School's focus on hiring research-intensive faculty with post doctoral experience or who have established research funding.
 - b. Over 20 Indiana University collaborative research grant submissions. School of Science faculty participated in ~23% of awards made.
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Activities planned for 2012-2013:

1. Best practices, efficiency, effectiveness of processes:

- a. Associate Dean for Finance and Planning will contribute to the School's growth in fiscal health and facilities. Continue to manage financial resources to ensure strong fiscal health.
- b. Continued strategic planning for hiring and retaining faculty in critical areas across the school.

2. Buildings, building repair, and renovation:

- a. Phase I has been approved for the new Science and Engineering Laboratory Building (SELB), which will be used for research and instructional laboratory space. Construction began in March 2012, and will be complete in Fall 2013, with occupancy set for early Spring 2014 .
- b. Discussions are ongoing for Phase II of SELB tentatively scheduled to begin two years after Phase I.

3. Faculty Support:

- a. Identify campus resources, external resources and collaborative opportunities for faculty to pursue their research and scholarly activities.
- b. Established departmentally-based formal mentoring plans for junior faculty..

4. Faculty Recruitment, Faculty Hiring:

- a. Continue hiring faculty in areas of strategic need to cover resignations and retirements.
- b. New faculty hires will be limited until additional research space becomes available.

▶ **2. Develop Nationally Recognized Undergraduate Programs in Select Areas**

- ☒ **1. Maintain and develop undergraduate programs that provide students with the learning skills and knowledge essential for employment and life-long learning.**

Campus Planning Theme: Teaching and Learning, Best Practices

Secondary Goals:

Sub Unit:

Time Frame: on going

Actions taken for 2011-2012:

- 1. New Degrees:** We continued to promote and expand new degree programs in areas of demand:

- a. B.A. in Applied Computer Science
- b. B.S. in Neuroscience.

- 2. Best practices:** Continue to use and develop innovative pedagogical practices and other educational experiences that promote student learning and engagement

- a. Just-in-Time Teaching (JiTT) in biology, chemistry and physics
- b. Peer Lead Team Learning (PLTL) in chemistry
- c. Computer-based testing and homework systems in chemistry, mathematics, physics, and psychology
- d. Transformation of Psychology B104 and B105 into a one-semester introductory psychology course, Psychology B110, with an on-line textbook collaboratively written by the Psychology faculty
- e. Extensive undergraduate involvement in RISE experiences such as research, internships, Service learning and study abroad opportunities

- 3. Efficiency, Effectiveness of Processes:** Completed articulation agreements with Ivy Tech covering Biology, Chemistry, Mathematics and Psychology. Collaborated with School of Education to establish scholarship opportunities for students pursuing certification to teach science and mathematics.
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Evidence of Progress for 2011-2012:

- 1. Substantial evidence for strength in undergraduate programs** is provided by student enrollment and participation in undergraduate research projects, Student publication of research papers in collaboration with faculty mentors, and participation in service learning projects.

- 2. Student Recognition:** 34 of the Top 100 Students at IUPUI were School of Science Students.

- 3. External Funding received** to develop new courses or curricula

- a. NSF STEP: A \$2 million effort in support of student success (Watt, School of Science)
 - b. NSF TUES: Contextualized Chemistry and Biology: With faculty from Biology and Chemistry, the new NSF Transforming Undergraduate Education in Science (NSF-TUES) grant will unite undergraduate computational chemistry labs and microbiology labs, with a focus on authentic drug discovery research.
 - c. NSF TUES: Cyber PLTL: Aim is to develop several on-line sections of Chemistry Peer-led Team Learning workshops
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Activities planned for 2012-2013:

- 1. Continue to develop new programs and educational methods** that attract students in areas of high need and promote learning and engagement

- a. B.S./M.S. 5 year program in physics/electrical engineering

- b. Develop cooperative education and internship opportunities for science students interested in gaining experience in industry before graduation
 - c. Increased Summer Bridge Opportunities for women in science and new freshmen students
 - d. Work with Ivy Tech to promote articulated degree programs and success of transfer students
- 2. Continue to integrate "RISE" initiatives** (opportunities for research, international experiences, and service and experiential learning) throughout the curriculum to provide relevant, interdisciplinary learning opportunities for School of Science students
- 3. Expand opportunities for pre-health science students** to obtain expanded professional preparation and support through a Pre-Health Support Center through collaborative efforts of Career Development Services and a new half-time Advisor for pre-health students.
- 4. Expand opportunities for science students to pursue careers** in secondary education, including 4-year programs leading to a Baccalaureate degree and licensure as a secondary school teacher in biology, chemistry, Earth science, mathematics, and physics, by adding an option to become certified through the Transition to Teaching (T2T) Program as a Noyce Scholarship recipient or a graduate Woodrow Wilson Fellow.
- 5. In concert with IU-system and Campus goals** to increase pathways to graduation and innovative undergraduate degrees, we plan to launch several on-line degree or degree completion programs in 2012-2013, most likely starting with an on-line minor in Health Psychology.

☒ 2. Increase overall retention and graduation rates by 10%.

Campus Planning Theme: Teaching and Learning

Secondary Goals:

Sub Unit: None

Time Frame: 2002-2006

Actions taken for 2011-2012:

All the actions mentioned above, plus

1. Established a new position in the Dean's Office with a focus on student retention
 2. Strengthening proactive efforts to reenroll students who have "stopped out"
 3. Continue to expand peer mentoring via the Math Assistance Center (MAC), Biology Resource Center, Chemistry Resource Center, Psychology mentoring, and other supplemental instruction, with the addition of the Physics Learning Space, PhyLS.
 4. Continued to support undergraduate research students financially, including students in the Diversity Scholars Research Program
 5. Continue to expand opportunities for students to work on campus.
 6. Continue to work with campus partners to foster the RISE initiative.
 7. Continue to focus on reducing DFW rates in courses with high attrition, a focus of the NSF STEP grant.
 8. Specific efforts in 2011-2012 include a course redesigns in
 - a. Genetics K322 Peer Recitation (Biology)
 - b. Chemistry C341: First Semester Organic Chemistry Workshop Series (Chemistry)
 - c. Calculus Course Redesign with Recitations (Mathematics)
 - d. Psychology Introductory Sequence
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Evidence of Progress for 2011-2012:

1. 10% increase in baccalaureate degrees conferred this year
2. Women in Science House fully occupied, with over 50% of the rooms occupied by returning students
3. High retention to graduation of Dean's Scholarship awardees (>90%)
4. Upward trajectory in retention rates (all categories)

5. Retention rate for Freshmen/Sophomore is 79% for dual admits, 86% for Junior/Senior majors, and 83% for all undergraduates.
 6. Initiated use of alumni mentor network, including alumni of the Women in Science House
 7. Established closer ties with University College counselors
 8. Enhanced scholarship support (Dean's Beginning and Continuing scholars, health and life science scholarships, scholarships for secondary education candidates)
 9. Continued support for Women in Science House (increased subsidy, new RA, new programming)
 10. Continued support for student organizations, including the seven departmental clubs, six interdisciplinary organizations, and the Psi Chi Honor Society
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Activities planned for 2012-2013:

1. All the actions mentioned above
2. Continue to expand Pedagogies of Engagement in undergraduate courses: Peer mentoring, Just in Time Teaching, Project Lead the Way
3. Provide additional focus on retention of specific populations such as: international students, minority students, transfer students, first generation freshmen, and women in science

3. Gain external recognition for our undergraduate programs

Campus Planning Theme: Teaching and Learning

Secondary Goals:

Sub Unit: None

Time Frame: Ongoing

Actions taken for 2011-2012:

1. Developed and implemented communications plan and materials for direct-admit students including phone scripts, electronic communication and social media
 - Reworked recruitment presentation to incorporate student panelists
 - Enhanced connections with high schools
 - Enhanced connections with IUPUI admissions office
 - Continued to sponsor events involving students in K-12 and teachers: High School Mathematics Contest, Genetic Update Conference, High School teachers conferences in psychology and forensic science
 - Created new High School Programming Contest (including Computer Science Day and Psychology Brain Bee)
 - Improved coordination of recruitment with outreach activities associated with individual departments, centers and programs, e.g., the Center for Earth and Environmental Science
 - Developed and administered direct-admit recruitment survey
 2. Sought internal and external funding for new and continuing programs
 3. Established a Student Ambassador program to support recruitment and retention activities.
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Evidence of Progress for 2011-2012:

1. Undergraduate enrollment up 26% in 5 years
 - Admitted class increase from 465 in Fall 2007 to 586 in Fall 2008 to 689 Fall 2009 to 1123 Fall 2010 (increase due to College Go-Week) to 681 Fall 2011
 - Enrolled class increase from 215 in Fall 2007 to 263 in Fall 2008 to 322 Fall 2009 to 388 Fall 2010 to 273 Fall 2011 (with newly revised admissions criteria)

2011 (with newly revised admissions criteria)

2. Improved tracking and measurement of undergraduate recruitment efforts allowing school to determine most effective communications and event strategies
 3. Average of 38% open rate and 16% click-through rate for school emails to direct-admit students
 4. High participation in High school math contest, programming contest
 5. Forensic science for HS teachers summer professional development
 6. Project Lead The Way professional development for high school biology teachers from Indiana and around the country
 7. NIH Support for Bridges to the Baccalaureate program
 8. Revitalized Dean's advisory committee
 9. Completed web site upgrades for School and Departments of Biology, Chemistry and Chemical Biology, and Physics
 10. Implementation of National Science Foundation STEP (Science Talent Expansion Program), funded in March 2010, (5 year, \$1.99 million)
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Activities planned for 2012-2013:

1. Same as above actions
2. Hire associate director of undergraduate recruitment
3. Continue to develop a Student Ambassador program to support recruitment and retention activities.
4. Develop and implement targeted full-cycle recruitment plan
5. Capitalize on IUPUI as the place to study a wide range of health-related professions
6. Work with admissions and other campus offices in support of enrollment shaping initiative
7. Presentations to business and corporate groups, schools, and others
8. Continue upgrade of the remaining department web sites and some school web sites
9. Improve recruitment coordination with departments and university offices
10. Implement customer relationship management system
11. Acquire data on student success in job search and graduate/professional admissions
12. Continue to implement National Science Foundation STEP (Science Talent Expansion Program) activities, aimed at developing and expanding nationally recognized undergraduate programs in Just in Time Teaching and Peer Led Team Learning, as an active collaboration with the School of Engineering & Technology

4. Increase quality and diversity of undergraduate student body

Campus Planning Theme: Teaching and Learning, Campus Climate for Diversity

Secondary Goals:

Sub Unit: None

Time Frame: 2002-2006

Actions taken for 2011-2012:

Diversity of students

1. Continue to support and participate in the Diversity Research Scholars Program (DSRP)
 2. Continue to support and participate in the Louis Stokes Alliance for Minority Participation (LSAMP) program
 3. Continue to support and participate in the McNair Scholars program
 4. Expand support for and programs associated with Women in Science House (WISH)
 5. Increased scholarship support for high ability students from \$145K to \$230K.
 6. Revised admissions criteria and developed admissions-based scholarships
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Evidence of Progress for 2011-2012:

Sustained undergraduate enrollment and while increasing student quality.

1. Mean SAT scores for freshman class:
Fall 2009: 1139 ; Fall 2010: 1112; Fall 2011: 1150
2. Mean High School Percentile Rank for freshman class:
Fall 2009: 61; Fall 2010: 63; Fall 2011: 67

Diversity of students

3. CTE awards for Women in Science have resulted in an increased rate of students returning to housing
 4. Continued support and retention of Diversity Scholars Research Program
 5. Minority representation increased from 15% to 19% over last 5 years
 6. Hispanic student representation rose to 5.8% in 2011 from 4.5% in 2010
 7. Enrollment of students of 2 or more races has increased from 35 (1.7%) to 83 (3.8%) over last three years.
 8. Awarded college credit for high school students who participated in a Project Lead The Way biology course.
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Activities planned for 2012-2013:

1. Continue above actions to increase quality and diversity of undergraduate student body
2. Continue regular meetings and events with the School of Science Diversity Council
3. Continue to collaborate with Ivy Tech to expand transfer of minority students in the life sciences (Bridges to Baccalaureate program)
4. Begin collaboration with the Norman Brown Diversity and Leadership Scholars Program, specifically with seeking graduate student mentorship of undergraduate students.
5. Increase the number of students supported under the Diversity Research Scholars Program
6. Continue to explore ways to award college credit for high school students who participated in a Project Lead The Way biology course.
7. Enhance External Development Marketing / Public Relations / Community Outreach

5. Revisioning Student Services in Science: Unifying the Office of Academic Affairs and the Office of Student Affairs

Campus Planning Theme: Teaching and Learning

Secondary Goals:

Sub Unit:

Time Frame: on going

Actions taken for 2011-2012:

1. **Best practices, efficiency, effectiveness of processes:** Launched shared office space for new Career Development Services (CDS) with the Math Assistance Center (MAC). (The MAC and Office of Career Development Services will be located in the basement of Taylor Hall)
 2. Hired new Director of Career Development Services.
 3. Hired a new Director of Undergraduate Retention to develop retention plans for current students.
 4. Implemented activities of the National Science Foundation STEP (Science Talent Expansion Program); work with PI and Co-PIs, internal and external advisory board members to develop and expand internships and career development services in the School of Science
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Evidence of Progress for 2011-2012:

1. Expanded career planning and placement services for students in lower level of Taylor Hall
 2. Expanded the breadth of professional development and career preparation opportunities available for students through CDS.
 3. Upgraded the Career Services website.
 4. Launched new e-newsletter "This Week in Science" to capture and distribute all student club and student council related events, scholarship announcements, RISE opportunities, and other postings of interest to undergraduate students. Sent weekly to all undergraduates in the School of Science, Department Chairs, and Dean's office staff.
 5. Increased the number of visits of local scientists and alumni that come to campus to talk to students about life and health science career opportunities as well as career opportunities for all School of Science majors.
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Activities planned for 2012-2013:

1. Relocate Career Services to "The Tower" (new student residence hall and support center). CDS will be strategically located near the Center for Research and Learning, the Center for Service and Learning, and other student support services. Move planned for early Winter/Spring, 2013
2. Continue to expand career planning and placement services for students.
3. Continue to expand the breadth of professional development and career preparation opportunities available for students through CDS.
4. Continue to upgrade the Career Services website.
5. Further increase the number of visits of local scientists and alumni that come to campus to talk to students about life and health science career opportunities as well as career opportunities for opportunities for all School of Science majors.
6. Continue to plan and implement retention plans for current students, based on new IU FLAG early student warning system
7. Submit Grants and proposals to support Career Development and retention activities.
8. Continue to implement activities of the National Science Foundation STEP (Science Talent Expansion Program); work with PI and Co-PIs, internal and external advisory board members to develop and expand internships and career development services in the School of Science.

3. Development of Nationally Recognized Research and Graduate Programs

-  1. Develop and expand academic programs of high scientific and national significance that build on current strengths
- Campus Planning Theme:** Teaching and Learning, Research, Scholarship and Creative Activity
- Secondary Goals:**
- Sub Unit:** None
- Time Frame:** Ongoing
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Actions taken for 2011-2012:

1. Continued Centers of Excellence in strategic areas (Center for Excellence in Biocomputing, Center for Mathematical Biosciences, Center for Visualization and Imaging, Center for Nanoscale Imaging, Center for Evidence-Based Psychiatric Practices, Center for Earth and Environmental Sciences, Center for Regenerative Biology, Center for Assertive Community Treatment, Center for Membrane Biosciences, Center for Urban Health, and the Integrated Nanosystems Development Institute (INDI), Institute for Mathematical Modeling and Computational Sciences.
 2. Ongoing meetings with academic counterparts and graduate deans at Purdue West Lafayette and the Indiana University Graduate School to move toward greater autonomy of graduate programs.
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Evidence of Progress for 2011-2012:

1. Continued renovations of buildings to modernize and increase classroom space, teaching laboratories, and research laboratories.
 2. Hired new faculty; all of whom are research-active and teach undergraduate and graduate courses.
 3. Recruited new chairs for the departments of Psychology, Chemistry & Chemical Biology, and Mathematical Science.
 4. CEES and ACT Centers are both fully designated IUPUI Signature Centers.
 5. Ph.D. proposals have been submitted and approved by the IUPUI Graduate Council for both Biology and Chemistry to obtain site approval from Indiana University to award doctorates.
 6. Obtained new office and laboratory space for Center for Earth and Environmental Science (CEES) in the Biotechnology Research Training Center.
 7. Renovated office space into a laboratory area for researchers from the Earth Science department.
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Activities planned for 2012-2013:

1. Ongoing discussions with administration at Purdue West Lafayette, the Indiana University Graduate School, and the Indiana Commission on Higher Education to increase autonomy of graduate programs.
2. Continue to safeguard financial resources to allow ongoing expansion of faculty and programs.
3. Continue to identify and forecast national research trends as they impact graduate training and employment opportunities.
4. New combined degree program with a Bachelor of Science and a Master of Science in Computer Science.
5. Continue construction of new Science and Engineering Laboratory Building.
6. New combined degree programs with either a Bachelor of Science in Biology or a Bachelor of Science in Chemistry with a Master of Science in Forensic and Investigative Sciences.
7. Explore partnership with Eli Lilly to permit Lilly employees to work towards their doctoral degrees at IUPUI.
8. Renovation of 4 research laboratories in the Earth Sciences department.

☒ 2. Increase annualized external funding for research

Campus Planning Theme: Research, Scholarship and Creative Activity

Secondary Goals:

Sub Unit: None

Time Frame: Ongoing

Actions taken for 2011-2012:

1. Identified emerging research directions and used existing strengths to capitalize on them.
 2. Hired several new faculty who are research-active and have existing external funding or have potential to secure external funding.
 3. Used centers of excellence and multidisciplinary activities as a catalyst to increase external funding.
 4. Continued policy of using indirect cost recovery to incentivize faculty efforts, increase external funding, and enhance graduate student support.
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Evidence of Progress for 2011-2012:

1. School of Science Awards Exceed \$10 million in 2011-2012: Collectively, faculty in the School of Science have

active research and education awards totaling over \$2.7 million from the National Science Foundation (NSF), \$2 million from the National Institutes of Health (NIH), \$1.8 million from other federal agencies like the USDA and the Department of Defense, \$1.2 million in funding Eli Lilly, Amgen, other industrial partners, non-profits, and private foundations, and \$1.4 million with state and local agencies and other universities. An additional \$1.1 million in funding is from internal awards such as CTSI, RSFG, and the prestigious IU Collaborative Research Grants (IUCRG) to faculty in Biology, Chemistry and Chemical Biology, Mathematics, Psychology and Physics. Two young investigators, Mohammad Al Hasan in Computer and Information Sciences, and Yogesh Joglekar in Physics, received prestigious NSF CAREER Awards for faculty members early in their careers who exemplify outstanding integration of education and research.

2. Instituted the research incentive program. Two faculty members earned this research bonus during the inaugural year of this program.

3. Organized a faculty workshop to educate faculty on funding opportunities at the National Science Foundation.

4. Hired an Executive Director for Research and Graduate Education to better manage grant processing and external funding oversight.

5. Participated in an ORA pilot program to provide enhanced grant preparation and submission support to the school's faculty.

6. Maintained nearly steady level of research expenditures for the 2011-2012 fiscal year, despite a challenging federal funding environment.

Activities planned for 2012-2013:

1. Continue to focus on recruiting quality faculty hires with existing funding or with potential to become independently funded.

2. Develop a mentor program for new faculty in grant writing to increase numbers of applications for external funding.

3. Identify new office space to house the school's business office staff.

4. Plan for additional research space that will permit expansion of research programs and external funding.

3. Expand and improve research and graduate education

Campus Planning Theme: Research, Scholarship and Creative Activity

Secondary Goals:

Sub Unit: None

Time Frame: Ongoing

Actions taken for 2011-2012:

1. **Graduate education, research, scholarship, creative activity:** All items in sections 1 and 2

- Expanded recruitment to graduate programs
- Sought external funding for graduate education

2. Implement Year 4 of the National Science Foundation GK-12 program (a Graduate Training Grant funded by the NSF Division of Graduate Education).

• 11 graduate students recruited and selected and from Biology, Chemistry, Earth Sciences, Psychology, and Physics to work in K-12 schools for the 2011-2012 school year

3. Over 20 proposals were submitted to the IU Collaborative Research Grant Program through which 23% of the approved proposals had School of Science faculty involvement.

Evidence of Progress for 2011-2012:

1 Graduate degrees conferred have increased by 19% over 5 years (from 162 to 193)

2. The Center for Urban Health, CEES, ACT Signature Centers and the Center for Mathematical Modeling and Computational Science received funding from IUPUI.
3. Faculty and researchers from mathematics and computer science continue to reside in offices in the HITS building leased from the IUSM.
4. Continued strong publication record by faculty and graduate students.
5. School of Science GK-12 Fellows implement research-based activities in classrooms and outdoor classrooms.
 - Year 4 of program again places 11 GK-12 fellows in Indianapolis classrooms and DSE outdoor education trailer.
 - GK-12 Fellows present at HASTI (Hoosier Association of Science Teachers) meeting, February 2011, National GK-12 Meeting, Washington DC, and IUPUI Research Day.
 - Two peer-reviewed manuscripts published in January 2010 on bringing microbiology and the study of biofilms into the high school classroom.
6. Break ground on the Science and Engineering Laboratory Building.

Activities planned for 2012-2013:

1. Continue to make graduate student funding available to departments earlier, so that funding is known before offers must be made to prospective students.
2. Continue to work with the Graduate School and upper-level administration to seek permanent budget lines for TA stipends.
3. Working to increase graduate student support (through indirect cost recovery, additional TA stipends, and RIF grants proposal) and standardize stipends across all Departments.
4. Continue and seek new areas for collaboration with the IU School of Medicine on use of research space, joint hires and other strategic areas.
5. Encourage departments to submit GAANN proposals.
6. Planning for new building to incorporate research space, a modern vivarium, and office for research faculty, graduate students and postdoctoral fellows.
7. Ongoing review of the use of space and research infrastructure by the research centers in the School.
8. Continue to expand research cores and centers, and develop administration of a space allocation policy for efficient use of space for research facilities.
9. Three signature centers and one institute continue to receive funding from the Office of the Vice Chancellor for Research.
10. Recruit and select 11 new and returning GK-12 fellows for Year 4 of the National Science Foundation GK-12 program, from Biology, Chemistry, Earth Sciences, Psychology, and Physics to work in K-12 schools for the 2011-2012 school year
11. Continue construction on the Science Engineering Laboratory Building (SELB).
12. The Executive Director of Research and Graduate Education will continue to work on improving graduate student recruitment.

4. Enhance External Development Marketing / Public Relations / Community Outreach

1. Marketing / Public Relations / Community Outreach

Campus Planning Theme: Civic Engagement

Secondary Goals:

Sub Unit: None

Time Frame: Ongoing

Actions taken for 2011-2012:

Refined marketing and communications plan to improve our ability to tell consistent and meaningful stories that raise awareness of the benefits that the School of Science provides through education and research, increase our ability to attract a diverse mix of high-quality students and faculty as well as support from donors and alumni, improve our reputation locally and nationally, and increase effectiveness and coordination of marketing and communications efforts.

1. Structure and administration

- a. Hired associate director of communications
- b. Refined project and event processes and tools
- c. Restructured the content management system (CMS) with one database for all seven department sites to improve efficiency
- d. Upgraded server

2. Branding

- a. Drafted messaging guides and key language
- b. Revised and developed recruitment materials

3. Communications

- a. Refined communications strategy to focus on key messages for recruiting and development
- b. Developed and implemented communications schedule
 - i. 30 Original-content news stories with full distribution
 - ii. 17 additional releases with full distribution in partnership with other units or organizations
 - iii. 22 internal releases and announcements
 - iv. 20 student and faculty spotlight stories produced
- c. Created google+ page and wikipedia page(s)
- d. Regular posts to social media outlets (facebook, twitter, linked-in)
- e. Launched new sites for department of biology and computer science

4. Provided marketing, event & recruitment support for recruitment, development, alumni-relations and student engagement/retention. See those areas for detail.

Evidence of Progress for 2011-2012:

1. Full project plans and evaluations created for 70% of marketing/communications projects (website development, events, collateral development)

2. Coverage per full release:

- a. Internal coverage per original- content full release:
 - i. 15 (50%) covered by an IU/IUPUI outlet
 - ii. Average of 1.26 internal outlets per release
- b. Traditional/Local coverage per full release:
 - i. 12 (40%) covered by local media, including 1 interview on Inside Indiana Business TV, feature in Indianapolis Star, several graduating student features in regional papers, extensive coverage of SELB groundbreaking, an op-ed featured in the Indy Star and on the Indianapolis Chamber of Commerce website.
 - ii. Average of 1.3 local outlets per release
 - iii. Additional feature stories about faculty member in Indianapolis Women and student on ABC 60 Minutes

3. Website response to releases/profiles

- a. 4316 views of profile pages (359/month average; 215/profile)
- b. 18197 views of news releases (does not include OCM data) (1516/month average; 263/release)

4. Social media:

- a. 50% increase in Facebook followers
 - i. Increased daily news feed impressions (total reach) from average of 23 to 133
 - ii. Average Daily viral reach: 72

- iii. Average Monthly Shares : 55
 - iv. Average Daily 'Engagement': 8
 - v. 0 unsubscribes
- b. 332 Participants for Science Linked-In Group

Activities planned for 2012-2013:

1. Structure & administration

- a. Refine budget process
- b. Continue to refine project and event processes and tools, establish collateral/design process
- c. Conduct internal surveys/evaluation on marketing services, awareness, etc.
- d. Develop marketing & communications dashboards
- e. Continue to explore intranet and other tools to improve internal communication
- f. Establish security and analytics schedules
- g. Establish 'department liaisons' to ensure regular communication

2. Branding

- a. Complete market/industry, positioning, and competitive research
- b. Draft brand blueprint, messaging guides and key language
- c. Develop visual identity handbook and writing style guide
- d. Establish key datasets for use in communications
- e. Develop brand change strategy to systematically overhaul and update all school and department materials

3. Communications

- a. Explore grass roots communications methods to improve HS teacher/student communications about news and student stories. (see recruitment plan)
- b. Clearly define social media strategy to improve ROI and develop internal policy
- c. Launch new websites for departments of earth sciences, psychology, math and neuroscience program
- d. Explore SEO improvements
- e. Continue to improve effectiveness of ads and sponsorship

4. Improve communications, marketing & event support for recruitment, development, alumni-relations and student engagement/retention. Possibly redefine event-support role based on new hires in recruitment and academic affairs.

☐ 2. Development

Campus Planning Theme: Civic Engagement

Secondary Goals:

Sub Unit: None

Time Frame: Ongoing

Actions taken for 2011-2012:

- 1. Recognize the contributions of alumni through special events such as Honors Convocation
- 2. Cultivation of new donors and stewardship of existing donors.
- 3. Continue to publish Ecatalyst Newsletter
- 4. Hired new Development Assistant
- 5. Continued Science on Tap to attract and engage local alumni

Evidence of Progress for 2011-2012:

1. Successful participation in the IMPACT IUPUI Campaign, focusing on projects that fit School of Science efforts in the RISE Initiative, Scholarships, Graduate fellowships and departmental annual giving
 2. Supported fundraising through updated website content, press releases to announce gifts, and on-line newsletter stories
 3. Continued cultivation of potential major donors to the School of Science to support Impact Campaign
 4. Began implementation of a Planned Giving communication plan that implements a variety of messaging venues, including frequent donor stories about planned gifts
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Activities planned for 2012-2013:

1. Work strategically with Dean's Advisory Council to leverage messaging about the School of Science to internal and external stakeholders
2. Appoint a Director for the Women in Science House
3. Engagement - Increase meaningful involvement of donors and potential donors with various Science and university leadership boards (Dean's Council, Senior Academy, Women in Science, Alumni, Department and Program boards), strategic engagement and communications at events and one on line relationship building.
4. Fundraising – meet annual fundraising goal through commitments of major, planned and annual fund gifts
5. Stewardship – continue to improve communications efforts of school fundraising priorities and successes through public relations, print and online communications vehicles, including targeted stewardship communications to major donors.
6. Restructure Development and Communication efforts within the School and consider reorganization in order to achieve increased efficiency.

3. Alumni Programming

Campus Planning Theme: Civic Engagement

Secondary Goals:

Sub Unit: None

Time Frame: Ongoing

Actions taken for 2011-2012:

1. Science Alumni Association Hosted Graduating Student Reception,
 2. Engagement - Increase meaningful involvement of alumni with various Science and university leadership boards (Dean's Council, Senior Academy, Women in Science, Department and Program boards), strategic engagement and communications at events and one on line relationship building.
 3. Created and administered survey to identify involvement interests and get contact info for recent graduates
 4. Assisted in developing graduation application survey to capture post-graduate plans and statistics
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Evidence of Progress for 2011-2012:

1. Continue to build alumni board to 18 members ensuring a good representation of majors, ages, race and gender
2. Continue to host industry and other events with Dean Rhodes (goal is 2-3 minimum)
3. Increased alumni communications through annual department newsletters, school wide e-newsletters, proactive integration of alumni stories to IUPUI, IU and other media outlets

Activities planned for 2012-2013:

1. Align Science Alumni Association goals with those of the School of Science
2. Increase Science Alumni Engagement activities, including Signature Event Planning
3. Provide opportunity for student leader involvement with Alumni Board
4. Increase alumni communications through annual department newsletters, school wide e-newsletters, proactive integration of alumni stories to IUPUI, IU and other media outlets
5. Implement online communications strategy integrating website and social media functions
6. Improve alumni data collection management
7. Appoint a Director for the Women in Science House
8. Hire a student intern to focus on alumni data collection, starting with data collection on the Women in Science House alumnae
9. Increase alumni engagement with IMPACT Campaign, annual fund and alumni membership opportunities.

▢ 5. Strategic Planning

☑ Strategic Plans for the School of Science

Campus Planning Theme: Best Practices

Secondary Goals:

Sub Unit:

Time Frame:

Actions taken for 2011-2012:

1. Under new dean Simon Rhodes, initiated substantial reorganization of the academic organizational structure of the Dean's Office
 - Update Strategic Plan
 - Recruitment
 - Retention
 - Academic Affairs
 - Student Affairs
 - Research and Graduate Education
 - Development and Marketing
 2. Groundbreaking for SELB-1 in March 2012: Construction underway
 3. Strategic Hires in Dean's Office: Director of Career Services, Recruitment, and Retention specialists; Associate dean for Planning and Finance
 4. Faculty Recruitment, Faculty Hiring: Hired 12 new teaching and research faculty based on potential for teaching and research excellence
 - a. 5 assistant Professors, 1 Associate Professor, 1 Academic Specialist and 3 Lecturers; 2 faculty hired into Full Professor and Chair positions (Chemistry and Psychology)
 - b. Diversity of Faculty: Seven new faculty hires were female, and two of the women are also members of minority groups underrepresented in science.
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Evidence of Progress for 2011-2012:

1. The School of Science remains fiscally sound, due to both record enrollments in 2010-2011 and to increased external

research funding

2. Establishment of dedicated accounts to handle start-up costs, renovations, instrumentation acquisitions and upkeep, particularly with costs associated with furnishing SELB-1.
 3. Continued to build upon the signature centers, with two new centers recently funded continuing to make progress: the Center for Urban Health and the Integrated Nanosystems Development Institute (INDI). The Center for Earth and Environmental Sciences has been reapproved.
 4. Strengthened targeted recruitment efforts to increase quality, quantity and diversity of full-time students.
 5. Worked with faculty and other units on campus to improve the curriculum, with a particular focus on the development of new honors courses and curriculum, using NSF STEP funding to expand Peer Led Team Learning, Just in Time Teaching and other pedagogies of engagement.
 6. Fund-raising, development campaign: Significantly increased alumni and community philanthropic support.
 7. Continued branding the School of Science as a school of choice for high-ability students who seek a quality undergraduate and graduate education in science.
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Activities planned for 2012-2013:

Science at IUPUI Strategic Planning update

The School is undertaking a strategic planning process led by Dr. Jane Williams from Psychology and Dr. Eugene Mukhin from Mathematical Sciences. The information gathering phase has included meetings, surveys, SWOT analyses etc. with groups including all School departments, staff/staff council, alumni/alumni board, Dean's advisory council, student leadership groups, science diversity council, community reps, etc. The core questions in this phase have been:

- 1) What do we want to be?
- 2) What do we value?
- 3) What skills will our graduates need to be successful?
- 4) What makes the SOS unique?

Based on the responses, we have identified 6 themes we as a School would like to work on in the next 5 years:

1. Identity, name recognition, reputation.
2. Research and innovation.
3. Graduate training.
4. Undergraduate education.
5. Community outreach.
6. Faculty and Staff development.

In addition, new draft versions of our Mission, our Core Values, and our Vision have been generated for further discussion. We are assembling working groups that will identify strategies, activities, and initiatives that will help to achieve our vision in each of the 6 areas. There will be broad representation from faculty, staff and students in these groups.

Fiscal Health

Reallocation Plan

Other Question(s)