History of School of Science

• Evolved from IU and Purdue programs in Indianapolis.
• Departments changed affiliations over the years.
• Purdue acquired land near State Fairgrounds on 38th St. in late 1950s and programs opened in 1961.
• IUPUI started in 1969.
• Restructuring in 1972 created School of Liberal Arts, School of Engineering & Technology, and School of Science.
• Science moved in two phases into two buildings on main campus during 1991-93.

Academic Departments and Programs (*programs)

• Biology
• Chemistry & Chemical Biology
• Computer & Information Science
• Earth Sciences
• Mathematical Sciences
• Physics
• Psychology
• Forensic & Investigative Sciences*
• Neuroscience*

School of Science-administered Centers:

• Assertive Community Treatment (ACT) Center
• Center for Urban Health
• Institute for Mathematical Modeling & Computational Science
• IU Center for Developmental & Regenerative Biology
• Center for Earth and Environmental Science
• Environmental Geochemistry and Health Core
• Center for Software and Innovation

IUPUI/IU Centers with significant Science faculty involvement, examples:

• Indiana Nanosystems Development Institute (INDI)
• STEM Education Research Institute (SEIRI)
• Stark Neuroscience Institute
• IU Alcohol Research Center (NIH)
• IU Simon Cancer Center (NIH)
• Urban Center for STEM Education (UCASE)
• Indiana University Center for Aging Research
• Quantitative Renal Imaging Signature Center
• Indiana CTSI
• Center on Diabetic Retinal Vascular Disease
• IU Center for Spacetime Symmetries
Undergraduate Degrees

• Biology (B.A. and B.S.)
• Biology Teaching (B.A.)
• Biology B.S. – M.S. Bioinformatics
• Biology B.S. – M.S. Forensic Science
• Biology B.S. – MPH
• Biotechnology (B.S.)
• Chemistry (B.A.)
• ACS-certified B.S.
  • Biological Chemistry
  • Medicinal Chemistry
• Chemistry Teaching (B.A.)
• Chemistry B.S. – M.S. Forensic Science
• Computer Science (B.A. and B.S.)
  • Biocomputing
• Computer Science (B.S. - M.S.)
• Environmental Science (B.S.)
  • Earth and Water Resources
  • Env. Management
  • Env. Remote Sensing & Spatial Analysis
• Forensic & Investigative Sciences (B.S.)
• Geology (B.A. and B.S.)
• Geology (B.S. - M.S.)
• Interdisciplinary Studies (B.S.)
• Mathematics (B.S.)
  • Actuarial Science
  • Applied Math
  • Applied Statistics
  • Pure Math
  • Math Education
• Neuroscience (B.S.)
• Physics (B.S.)
  • Biophysics
  • Physics Teaching
• Physics B.S. – B.S. Electrical Eng.
• Psychology (B.A. and B.S.)

Masters Degrees

• Applied Data Science (MS)
• Biology (MS, MS-MBA)
• Chemistry (MS, MS-MBA)
• Computer Sci. (MS, MS-MBA)
• Forensic & Invest. Sci.
• Geology (MS, MS-MBA)
• Math (MS, MS-MBA)
• Pure/applied math
• Applied Stats
• Math Education
• Physics
• Psychology (MS, MS-MBA)
• Ind./Org.
• Clinical

Doctoral Degrees

• Addiction Neuroscience
• Applied Earth Sciences
• Applied Social & Organizational Psychology
• Biology
• Biostatistics (in partnership with the Fairbanks School of Public Health)
• Chemistry & Chemical Biology
• Clinical Psychology
• Computer Science
• Mathematical Sciences
• Physics
Total Number of Students (headcount)

<table>
<thead>
<tr>
<th></th>
<th>F14</th>
<th>F15</th>
<th>F16</th>
<th>F17</th>
<th>F18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under-Grad</td>
<td>2118</td>
<td>2344</td>
<td>2572</td>
<td>2602</td>
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<tr>
<td>MS</td>
<td>274</td>
<td>250</td>
<td>248</td>
<td>243</td>
<td>212</td>
</tr>
<tr>
<td>PhD</td>
<td>221</td>
<td>200</td>
<td>204</td>
<td>207</td>
<td>207</td>
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<tr>
<td>Total</td>
<td>2613</td>
<td>2794</td>
<td>3024</td>
<td>3052</td>
<td>3096</td>
</tr>
</tbody>
</table>

• Out of State includes MSEP

Quality of student body

• 57% of our UG student body is female
• URM diversity is 21%
• SCI 1 year retention = 81%
• SCI 4 year graduation = 52%
• SCI 6 year graduation = 62%

2019 School of Science Admits
• Average High School GPA    -   3.74
• Average SAT score     - 1252

Honors Students
• Approximately 35% of IUPUI honors are Science Majors
  (343 science majors in campus honors program)
• 37 students currently participate in School of Science honors program

IUPUI Top 100
• 45 of Top 100 at IUPUI were science majors in 2019
• 5 of Top 10 were science majors
• Top IUPUI Student was a Neuroscience major

Credit Hours Taught

<table>
<thead>
<tr>
<th></th>
<th>AY 14</th>
<th>AY 15</th>
<th>AY 16</th>
<th>AY 17</th>
<th>AY 18</th>
<th>AY 19</th>
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</thead>
<tbody>
<tr>
<td>UG</td>
<td>153177</td>
<td>155259</td>
<td>153120</td>
<td>154158</td>
<td>151830</td>
<td>150501</td>
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<tr>
<td>GRAD</td>
<td>9406</td>
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<td>8649</td>
<td>8718</td>
<td>7991</td>
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<td>TOTAL</td>
<td>162583</td>
<td>164247</td>
<td>161794</td>
<td>162807</td>
<td>160548</td>
<td>158492</td>
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• Out of State includes MSEP

Total Number of Undergrad Students by Residency

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<td>Out-of-State</td>
<td>53</td>
<td>51</td>
<td>91</td>
<td>110</td>
<td>134</td>
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<tr>
<td>International</td>
<td>45</td>
<td>43</td>
<td>38</td>
<td>56</td>
<td>57</td>
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</table>

Total Number of Grad Students by Residency

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<td>211</td>
<td>174</td>
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<td>75</td>
<td>109</td>
<td>92</td>
<td>88</td>
<td>91</td>
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<tr>
<td>International</td>
<td>212</td>
<td>200</td>
<td>184</td>
<td>173</td>
<td>146</td>
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</tbody>
</table>

• Out of State includes MSEP
STUDENT BODY & FACULTY DATA

Degrees Awarded

<table>
<thead>
<tr>
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<th>UG</th>
<th>MS</th>
<th>PhD</th>
<th>TOTAL</th>
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<tbody>
<tr>
<td>2015</td>
<td>547</td>
<td>151</td>
<td>29</td>
<td>727</td>
</tr>
<tr>
<td>2016</td>
<td>582</td>
<td>153</td>
<td>30</td>
<td>765</td>
</tr>
<tr>
<td>2017</td>
<td>605</td>
<td>130</td>
<td>39</td>
<td>774</td>
</tr>
<tr>
<td>2018</td>
<td>652</td>
<td>147</td>
<td>37</td>
<td>836</td>
</tr>
<tr>
<td>2019</td>
<td>622</td>
<td>129</td>
<td>32</td>
<td>783</td>
</tr>
</tbody>
</table>

Degrees Awarded

<table>
<thead>
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<th>F16</th>
<th>F17</th>
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<tbody>
<tr>
<td>INDIANA</td>
<td>211</td>
<td>174</td>
<td>178</td>
<td>192</td>
<td>182</td>
</tr>
<tr>
<td>OUT-OF-STATE</td>
<td>75</td>
<td>109</td>
<td>92</td>
<td>88</td>
<td>91</td>
</tr>
<tr>
<td>INTERNATIONAL</td>
<td>212</td>
<td>200</td>
<td>184</td>
<td>173</td>
<td>146</td>
</tr>
</tbody>
</table>

Gender/URM Breakdown by Group

<table>
<thead>
<tr>
<th>GROUP</th>
<th>2018</th>
<th>%F</th>
<th>%URM*</th>
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<tr>
<td>PROFESSOR</td>
<td>43</td>
<td>7%</td>
<td>2%</td>
</tr>
<tr>
<td>ASSOCIATE PROF</td>
<td>55</td>
<td>31%</td>
<td>1.8%</td>
</tr>
<tr>
<td>ASSISTANT PROF</td>
<td>29</td>
<td>32%</td>
<td>14%</td>
</tr>
<tr>
<td>SENIOR LECTURER</td>
<td>14</td>
<td>53%</td>
<td>0%</td>
</tr>
<tr>
<td>LECTURER</td>
<td>27</td>
<td>52%</td>
<td>7%</td>
</tr>
<tr>
<td>CLINICAL</td>
<td>2</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>ACAD. SPECIALIST</td>
<td>4</td>
<td>50%</td>
<td>0%</td>
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</table>

• Does not include faculty of Asian heritage

Faculty Data

<table>
<thead>
<tr>
<th>GROUP</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
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<tbody>
<tr>
<td>TENURE</td>
<td>130</td>
<td>130</td>
<td>132</td>
<td>131</td>
<td>130</td>
<td>124</td>
</tr>
<tr>
<td>LECTURER</td>
<td>43</td>
<td>43</td>
<td>46</td>
<td>45</td>
<td>45</td>
<td>43</td>
</tr>
<tr>
<td>CLINICAL</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>STAFF</td>
<td>68</td>
<td>82</td>
<td>78</td>
<td>75</td>
<td>82</td>
<td>83</td>
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Record Number of Majors

<table>
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<tr>
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<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
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<tbody>
<tr>
<td>Total</td>
<td>2178</td>
<td>2390</td>
<td>2368</td>
<td>2609</td>
<td>2677</td>
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</table>

Total annual number of staff over the last five years

<table>
<thead>
<tr>
<th>GROUP</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clerical</td>
<td>17</td>
<td>18</td>
<td>14</td>
<td>17</td>
<td>14</td>
</tr>
<tr>
<td>PAE</td>
<td>33</td>
<td>31</td>
<td>32</td>
<td>35</td>
<td>35</td>
</tr>
<tr>
<td>PAO</td>
<td>14</td>
<td>15</td>
<td>14</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>Research Tech</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Tech Support</td>
<td>15</td>
<td>12</td>
<td>11</td>
<td>10</td>
<td>14</td>
</tr>
<tr>
<td>Total</td>
<td>82</td>
<td>78</td>
<td>74</td>
<td>81</td>
<td>83</td>
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</tbody>
</table>
Total annual budget by main categories over the last five years

<table>
<thead>
<tr>
<th>INCOME</th>
<th>FY 16</th>
<th>FY 17</th>
<th>FY 18</th>
<th>FY 19</th>
<th>FY 20</th>
</tr>
</thead>
<tbody>
<tr>
<td>State Appropriation</td>
<td>$8,115,665</td>
<td>$8,351,622</td>
<td>$8,452,545</td>
<td>$8,501,590</td>
<td>$8,875,289</td>
</tr>
<tr>
<td>Total Net Income</td>
<td>$43,645,202</td>
<td>$42,976,004</td>
<td>$42,715,891</td>
<td>$43,910,121</td>
<td>$45,265,896</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EXPENSES</th>
<th>FY 16</th>
<th>*FY 17</th>
<th>*FY 18</th>
<th>*FY 19</th>
<th>FY 20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salaries &amp; FB</td>
<td>$27,241,142</td>
<td>$27,314,054</td>
<td>$27,153,232</td>
<td>$26,605,729</td>
<td>$27,263,386</td>
</tr>
<tr>
<td>Other costs</td>
<td>$16,401,161</td>
<td>$16,400,372</td>
<td>$19,362,659</td>
<td>$18,770,351</td>
<td>$18,002,510</td>
</tr>
<tr>
<td>TOTAL</td>
<td>$43,645,303</td>
<td>*$43,714,426</td>
<td>*$46,515,891</td>
<td>*$45,376,080</td>
<td>$45,265,896</td>
</tr>
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</table>

* Additional expenses covered with cash
** Budgeted at 90%

Space/facilities – location of the School
Total annual research/external funding obtained over the last 5 years

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>$ Proposals</td>
<td>$77.4 M</td>
<td>$95.8 M</td>
<td>$86.8 M</td>
<td>$105.9 M</td>
<td>$102 M</td>
<td>$73 M</td>
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<tr>
<td># Proposals</td>
<td>192</td>
<td>206</td>
<td>197</td>
<td>203</td>
<td>187</td>
<td>170</td>
</tr>
<tr>
<td>$ Awards</td>
<td>$8.4 M</td>
<td>$12.6 M</td>
<td>$13.4 M</td>
<td>$7.9 M</td>
<td>$11.8 M</td>
<td>$12.2 M</td>
</tr>
<tr>
<td># Awards</td>
<td>68</td>
<td>97</td>
<td>103</td>
<td>68</td>
<td>89</td>
<td>73</td>
</tr>
<tr>
<td>Res. Exp.</td>
<td>$8.6 M</td>
<td>$8.8 M</td>
<td>$10.6 M</td>
<td>$9.5 M</td>
<td>$10 M</td>
<td>$9.9 M</td>
</tr>
<tr>
<td>ICR</td>
<td>$1.9 M</td>
<td>$2.1 M</td>
<td>$2.5 M</td>
<td>$2.4 M</td>
<td>$2.8 M</td>
<td>$3.6 M</td>
</tr>
</tbody>
</table>

Bicentennial campaign fundraising status (vs. revised goal)

<table>
<thead>
<tr>
<th></th>
<th>Philanthropic Gifts</th>
<th>Non-Governmental Grants</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Goal $ Raised % Goal</td>
<td>Goal $ Raised % Raised</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Goal $ Raised % Goal</td>
<td>Goal $ Raised % Goal</td>
<td></td>
</tr>
<tr>
<td>Goal</td>
<td>$4.5 M</td>
<td>$7,084,899 157.44%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$8 M</td>
<td>$7,406,428 92.58%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$12.5 M</td>
<td>$14,491,327 115.93%</td>
<td></td>
</tr>
</tbody>
</table>
Accreditation

- Forensic & Investigative Science degrees accredited by Forensic Science Education Programs Accreditation Commission (FEPAC)
- Chemistry B.S. degree certified by American Chemical Society (ACS)
- Clinical Psychology Ph.D. degree accredited by the American Psychological Association (APA)
- Animal Facilities - SARC is accredited by AAALAC (Assessment and Accreditation of Laboratory Animal Care OR American Association for the Accreditation of Laboratory Animal Care).

Student Awards

- Amira A. Nafiseh, an undergraduate student, was selected as a Chancellor’s Scholar.
- Saurabh Pandey, a graduate student, was selected as a Chancellor’s Scholar.

Recent notable faculty hires

- Dr. Tamika Zapolski - iupuiprismlab.com
- Dr. Susan Walsh - iupui.edu/~walshlab/
- Dr. Nicholas Manicke - indiana.edu/~nemgroup/start.html
- Dr. George Mohler - georgemohler.com/

Ranking - examples

- New M.S in Applied Data Science (joint degree between CIS and Math)
- New IU Ph.D. in Applied Social and Organizational Psychology (ASOP)
- New B.A. in Applied Computer Science
- New B.S. in Neuroscience
- New B.S. Math Applied Statistics
- All Ph.D. degrees awarded by ICHE from Indianapolis
- PREPS – an extensive School of Science Careers & Internship office
- Science and Engineering Laboratory Building
- Science Honors Program
  - STEM floor in North Hall
  - Women in Science & Engineering (WISE) Wing

Faculty/Staff Awards

- Charles Goodlett received Chancellor’s Professorship and the Glenn W. Irwin, Jr., M.D., Experience Excellence award.
- Bonnie Blazer-Yost selected as a Fellow of the American Physiological Society.
- Andy Harris, Lecturer in Computer and Information Science was a finalist for the Indiana TechPoint Educator award.
- Lingma Acheson received the Chancellor’s Award for Excellence in Teaching.
- Yao Liang received the Glenn W. Irwin, Jr., M.D., Research Scholar Award.
- Simon Rhodes and Simon Atkinson both received the Gerald L. Bepko Outstanding Administrator Award.
- Simon Rhodes and N. Douglas Lees received the Chancellor’s Medallion.

Annual Report IUPUI School of Science 9
Space/facilities – location of the School

External engagements

• Williams M. Plater Civic Engagement Medallions – 10 out of the 50 awarded were science majors in 2018
• Duke Energy- IUPUI Science Mobile science lab visits elementary and middle schools to bring science to the students.
• Partner with La Plaza to help facilitate STEM club meetings and visits to campus

International collaboration

• Chemistry graduate student exchanges with Newcastle University (U.K.)
• Our Partner Sun Yat-Sen University – Physics research and several degree collaborations
• Distributed Drug Discovery (D3) Education – a global hands on discovery learning method
• Earth Science faculty study all over the world

New initiatives planned over the next 5 years

• Build next phase of Science Strategic Plan
• Build Innovation Hall in partnership with other IUPUI schools.
• Increase internships and study abroad
• Moderately increase out-of-state enrollment
• Focus on growing degrees that leverage the IUPUI environment, e.g.
  • Actuarial science
  • Environmental Science
  • Forensic science
  • Neuroscience
• Improve success of pre-Science University College students
• Maintain research strengths, e.g. addiction
• Work with SEIRI and partners to optimize STEM education research efforts
Key Bicentennial Strategic Plan
Initiatives being addressed & status

#1. An Excellent Education
- The best academic programs: e.g. successful new degrees (16)
- Educating outstanding students: e.g. sections (5, 14)
- Academic success and completion: e.g. sections (4, 5, 6)
- High quality student life: e.g. new living-learning spaces and SELB and MDCRB (16, 22)
- Access and affordability for Hoosiers: We Serve the State (3, 4, 5, 6, 11)
- Innovative teaching: e.g. D3 teaching program (19)

#2. An Excellent Faculty: e.g. sections (10, 14, 15)

#3. Excellence in Research: e.g. sections (10, 14, 15)

#4. The International Dimension of Excellence: e.g. sections (10, 12, 15) Room for improvement in undergraduate programs

#5. Excellence in the Health Sciences and Health Care: e.g. sections (10, 12, 14)
- Every Science department has a life-health science focus that befits our environment (2)
- Science has significant NIH funding (10)
- Science is significant partner in IU health initiatives, e.g. Alcohol Research Center and Addictions GC (2)

#6. Excellence in Engagement and Economic Development: e.g. sections (15, 18)

#7. Excellence in Advancement: e.g. Bicentennial Campaign progress (11)

#8. Building for Excellence: e.g. SELB and planned MDCRB buildings (16, 22)

#9. The Centrality of Information: e.g. educational and research contributions (2)

#10. Responsible Stewardship of Indiana University’s Resources: e.g. press releases (5, 14, 15, 18, 19)

Challenges over the next 5 years

- Space
  - Innovation Hall
  - Collaborative with E&T and SOIC
  - Learning spaces
  - Research spaces
  - Collaborative spaces
  - ~65,000 assignable sq. ft.
  - ~$44m
- Enrollment Management