# The graphic displays an orange Samford icon with Auburn University listed in blue.

# Assessment Report

# Bachelor of Industrial Design, BIND

The Bachelor or Industrial Design (INDD) is a professional undergraduate degree awarded after completing a 9-semester curriculum requiring a minimum of 126 credit hours. No formal options or tracks are currently offered. Due to the importance of the face-to-face “studio” experience, courses are only offered on-campus.

The program, established within the Department of Arts and Architecture in 1945, was the first National Association of Schools of Art and Design (NASAD) accredited curricula in the southern United States and remains the only program of its kind within the state of Alabama. Auburn Industrial Design has nine full-time tenured and tenure track faculty members, three of whom hold the rank of full professor each with twenty-five or more years of teaching experience at Auburn University.

Students entering Auburn University seeking degree declare as ‘Pre-Industrial Design’. No portfolio review is required for those wishing to pursue entry into the program as the curriculum is focused on providing the necessary “design foundations” as well as more advanced capabilities required of individuals wishing to practice design professionally.

The industrial design program maintains the right to select, via a first-year summer design studio, the most highly qualified students for admission to and for continuation in the industrial design “professional” program. Within the professional program, enrollment is limited to a cohort of forty-five students per year level in a lock-step curriculum requiring a design studio course during each of the remaining six semesters. Total enrollment for the undergraduate industrial design program during the 2016-2017 academic year was approximately 215 students.

## Student Learning Outcomes:

### Specificity of Outcomes

## Program Vision

It is the vision of the Bachelor of Industrial Design (INDD) program to provide a practical, professional, education for young designers, through studio based experiences, technical instruction, and industry collaboration.

## Learning Objectives and Outcomes

The bachelor’s degree program in Industrial Design has learning outcomes associated with three major areas related to the professional practice of design: *Design Research, Design Development, and Communication.*

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| Learning Objective #1  Students graduating with a Bachelor of Industrial Design degree will demonstrate proficiency identifying and applying human-centered design research methods. *[Design Research]*  ***Learning Outcomes:*** | |
| On graduation, students receiving a Bachelor of Industrial Design degree will be able to: | |
| 1.1 | Identify project priorities and create a design research plan leading to the systematic identification of design concerns and implications |
| 1.2 | Manage and apply information in a clear and professional manner |

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| Learning Objective #2  Students graduating with a Bachelor of Industrial Design degree will demonstrate the ability to produce work and solve problems that address the balance of; user requirements, client driven design criteria, and aesthetic quality.  *[Design Development]*  ***Learning Outcomes:*** | |
| On graduation, students receiving a Bachelor of Industrial Design degree will be able to: | |
| 2.1 | Analyze; research implication, contextual details, and design requirements to effectively propose design solutions. |
| 2.2 | Recognize and compose well-informed design concepts that address project requirements. Identifying and enhancing viable solution proposals through iteration and refinement. |
| 2.3 | Demonstrate professional competence in the application of design principles, and the use of object semantics in design compositions. |

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| Learning Objective #3  Students will demonstrate the ability to produce and present design projects through verbal and visual means to accurately and effectively communicate design experiences and outcomes.  *[Design Communication]*  ***Learning Outcomes:*** | |
| On graduation, students receiving a Bachelor of Industrial Design degree will be able to: | |
| 3.1 | Exhibit requisite visual communication skill in conveying broad project understanding. |
| 3.2 | Demonstrate proficiency with visual and narrative methods required to accurately and effectively support communication of the project narrative. |

### Comprehensive Outcomes

The student learning outcomes listed represent a represent a comprehensive scope of the program. These outcomes represent skills and capabilities the faculty at large agree should be developed over the course of each students’ undergraduate education. These skills are introduced in the Foundations sequence during the second-year semester sequence, further advanced during the third-year, and subsequently mastered through the fourth-year sequence.

Though the program seeks to provide a generalist education allowing students the opportunity to define their career path in the broad discipline of Industrial Design, these student learning outcomes represent the skills and capacities required in service as a professional designer.

These outcomes are in alignment with disciplinary standards set by our accreditation agency, the National Association of Schools of Art and Design (NASAD) and those professionals represented by the Industrial Designers Society of America (IDSA).

The program vision, and learning outcomes were established by the Industrial Design faculty group (9 members) as part of faculty discussions and review during the 2015-16 academic year.

### Communicating Outcomes

Faculty: The student learning outcomes outlined here are shared among the faculty in Industrial Design and are regularly included in course syllabi providing a framework for the development of course content and relevant assignments. A digital version of this resources is made available to all faculty and staff members via the School’s shared network storage device(s).

Students: Student Services representatives within the College of Architecture Design and Construction (CADC) now distribute documentation outlining student learning outcomes to all incoming Freshmen at Camp War Eagle and on first advising session with transfer students. In addition, as part of the School of Industrial and Graphic Design (SIGD) annual student convocation, the program chair has communicated these outcomes to all undergraduate students. In addition, faculty highlight the importance of these objectives through studio assignments, course lectures, and class discussions.

## Curriculum Map:

The faculty in industrial design is in the process of a comprehensive review addressing the alignment of student learning outcomes outlined here and specific courses/experiences to which they are linked.

The curriculum map offered here for the Bachelor of Industrial Design degree represents the current state of the program and those assessments that are currently implemented and provided in this report.

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| **Learning Objective** | **Learning Outcomes** | **Course/Experience** | **Remarks** |
| #1 | 1.1 – 1.2 | *INDD 3210: Product Design (studio)*  design studio project | The INDD 3210: Product Design studio course is a required (core) course offered in the second semester of the third-year program. The course involves a comprehensive project, often involving industry collaboration. The project itself covers all learning outcomes.  Assessments are typically performed by industry representatives, or course faculty where there is none. The final assessment is based on individual performance. |
| #2 | 2.1 – 2.3 | *[various studio courses]*  student portfolio materials | To date, evaluation of Design Development has been based on review of those projects depicted in student portfolios.  Final assessment regularly performed by members of the Industrial Design faculty. Review by industry representatives may also be invited. |
| #3 | 3.1 – 3.2 | *INDD 5120: Professional Portfolio*  student portfolio project | Evaluation of student portfolios addresses learning outcomes relating to Communication.  Final assessment regularly performed by the course instructor. Other faculty members and industry representatives may be invited based on the discretion of the instructor. |

## Measurement:

### Outcome-Measure Alignment

The table shown provides the following information: 5. Outcome-Measure Alignment, 6. Measures (Direct or Indirect), 7. Data Collection. Survey rubrics indicated are available in the “Results” section to follows.

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| **Outcome – Measure Alignment** | | **Direct/Indirect Measure** | **Data Collection Process** |
| **Learning Objective/Outcomes** | **Description of the Assessment Measure** |
| #1 (1.1 – 1.2) | design studio project  *INDD 3210: Product Design (studio)* | *direct* | The INDD 3210: Product Design studio course is a required (core) course offered in the second semester of the third-year program. The course involves a comprehensive project, often involving industry collaboration. The project itself covers all learning outcomes.  Assessments are typically performed by industry representatives, or course faculty where there is none. The final assessment is based on individual performance.  Reviewers are asked to indicate their evaluation based on a four point scale as to whether the student has met each learning outcome. |
| #2 (2.1 – 2.3) | student portfolio materials  *[various studio courses]* | *direct* | To date, evaluation of *Design Development* has been based on review of those projects depicted in student portfolios.  Assessment regularly performed by members of the Industrial Design faculty. Review by industry representatives may also be invited.  Reviewers are asked to indicate their evaluation based on a four point scale as to whether the student has met each learning outcome. |
| #3 (3.1 – 3.2) | student portfolio project  *INDD 5120: Professional Portfolio* | *direct* | To date, evaluation of *Design Communication* has been based on review of student portfolios by members of the Industrial Design Advisory Council. Reviewer were asked to complete a survey determining the level to which each student has met the learning outcomes.  Reviewers are asked to indicate their evaluation based on a four point scale as to whether the student has met each learning outcome. |

To date, review of student learning outcomes via survey has offered the opportunity for evaluation by those professionals outside of the program and faculty un-linked to the teaching itself. This method is under evaluation and will be discussed among program faculty during review of the broader assessment process.

## Results:

### Reporting Results

The grading rubric used for assessment along with the mean scores and standard deviation is shown below:

*Learning Objective #1: Design Research*

Assessment Method: Survey review of group work by professional representatives involved in industry collaboration for the course during *INDD3210: Product Design* student presentations.

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| **Learning Objective #1: *Design Research*** | | | | | | | | |
| **Goal/Expectations** | **Students’ Performance (Sample size= 21)** | | | | | | **2015-16** | |
|  | **Exceeds Expectations (4)** | **Meets Expectations (3)** | **Progress to Expectations (2)** | **Below Expectations (1)** | **Wtd. Avg. Score** | **S.D.** | **Wtd. Avg. Score** | **S.D.** |
| Demonstrates understanding of problem and identifies specific factors that influence the approach to the problem before solving. (SLO 1.1) | **6** | **10** | **4** | **1** | **3.00** | **0.84** | **3.09** | **0.83** |
| Extracting and assimilating data in an understandable and professional method. (SLO 1.2) | **6** | **10** | **5** |  | **3.05** | **0.74** | **2.73** | **0.90** |

*Learning Objective #2: Design Development*

Assessment Method: Survey review by Industrial Design faculty members of project outcomes communicated through individual student portfolios representing work complete through the third-year studio sequence.

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| **Learning Objective #2: *Design Development*** | | | | | | | | |
| **Goal/Expectations** | **Students’ Performance (Sample size= 27)** | | | | | | **2015-16** | |
|  | **Exemplary (4)** | **Accomplished (3)** | **Developing (2)** | **Needs Dev (1)** | **Wtd. Avg. Score** | **S.D.** | **Wtd. Avg. Score** | **S.D.** |
| Recognizes the need for multiple ideas.  Implement ideas and identify possible solutions. Ability to develop ideas into workable/creative solutions (SLO 2.1) | **3** | **13** | **10** | **1** | **2.67** | **0.73** | **2.70** | **0.83** |
| Application of critical thinking and informed concepts.  Ability to develop concepts that address project criteria. (SLO 2.2) | **5** | **11** | **10** | **1** | **2.74** | **0.81** | **2.80** | **0.88** |
| Development of understandable and usable form.  Convey meaning or information related to concepts.  (SLO 2.3) | **4** | **10** | **12** | **1** | **2.41** | **0.94** | **2.51** | **1.02** |

*Learning Objective #3: Design Communication*

Assessment Method: Survey review by seven members of the Industrial Design professional advisory council of seven randomly selected student portfolios created for *INDD5120: Professional Portfolio* (representing work complete through the third-year studio sequence).

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| **Learning Objective #3: *Design Communication*** | | | | | | | | |
| **Goal/Expectations** | **Students’ Performance (Sample size= 27)** | | | | | | **2015-16** | |
|  | **Exemplary (4)** | **Accomplished (3)** | **Developing (2)** | **Needs Dev (1)** | **Wtd.**  **Avg. Score** | **S.D.** | **Wtd.**  **Avg. Score** | **S.D.** |
| Projects presented clearly and effectively using appropriate and efficient visuals (SLO 3.1) | **25** | **27** | **15** | **3** | **3.06** | **0.87** | **3.33** | **0.70** |
| Visuals presented clearly, accurately and effectively to support communication of the project narrative (SLO 3.2) | **20** | **36** | **10** | **4** | **3.03** | **0.82** | **3.25** | **0.68** |

### Interpreting Results

*Learning Objective #1: Design Research*

Evaluation represents that of students during the third-year studio sequence (including the first comprehensive design studios) results are satisfactory and appear to demonstrate adequate progress.

The evaluation matrix shows weight average scores reaching 3.0+ in the two categories evaluated. Assessment results from the previous year show similar patterns although differences in project content may affect year to year comparisons.

*Learning Objective #2: Design Development*

As work provided for evaluation represents that accomplished by students during the third-year studio sequence (including the first comprehensive design studios) results are satisfactory and do appear show progress.

The evaluation matrix shows weight average scores approaching 3.0 in 2 out of 3 categories. The area that shows less advancement is the development of

quality/communicative form. Assessment results from the previous year show similar patterns although differences in project content may affect year to year comparisons.

*Learning Objective #3: Design Communication*

As work provided for evaluation represents that accomplished by students during the third-year studio sequence (including the first comprehensive design studios) results are satisfactory and, again, do appear show progress.

The evaluation matrix shows weight average scores above 3.0 in both categories being evaluated. Assessment results from the previous year show similar results. Review of individual survey results reveals widely varying evaluations for the same work across the range of reviewers. This does raise some concern as to whether external reviewers provide useful insight as personal preferences may play a bigger role in evaluation than specific student achievement. To counter this point, it can also be said that professionals are the very people for whom the portfolio is intended.

### Communicating Results

Results of the evaluations, and commentary included here are shared with the undergraduate faculty as part of regular faculty meetings and are to be shared with the school head.

## Use of Results:

### Purposeful Reflection and Action Plan

Since the submission of the Industrial Design assessment report in July of 2016 the Industrial Design faculty at large have become more attuned to the use of discreet learning outcomes in the review and evaluation of broader curriculum considerations. Discussions have begun in the context of regular faculty meetings.

During the 2017-18 academic year, the undergraduate faculty in Industrial Design will embark on a comprehensive effort to establish learning objectives and outcomes for the professional program itself, discreet expectations for student achievement by the end of each year level, and outlining specific course content contributions across the board. As an already well regarded program and one that prides itself in providing graduates with the educational background to succeed in a demanding profession, we feel that this will offer a valuable

framework to support adaptations to future challenges brought on by a changing profession.

It has also become painfully clear that our chosen evaluation methods need to be improved for ease of implementation and a broader profile of the program and its students. Efforts will be made in the coming year to incorporate more of those evaluations already being done by faculty into the assessment process rather than relying on supplemental processes which take time and considerable effort. It will also be critical for assessment criteria to be expanded so that they include expectations at earlier year levels, and to better capture the achievements of students exiting the program. Given a broader sample of student progress (reaching before and after those outcomes currently representing work in the third-year sequence) decision makers will be much better equipped to identify success and shortcomings at the points where the small changes can be leveraged for outsized advances in student success