

NASAD Competencies Summary

Degree: The BFA in Industrial Design, a professional undergraduate degree

Essential Note: Items below are excerpts from the **NASAD Handbook**. Items 1 through 5 indicate the content and natures of the competencies expected of those graduating with the above degree. Items 6 and 7 indicate recommendations for competency development.

Only the *Handbook in its entirety* contains all standards and guidelines applicable to and used by all phases of NASAD membership reviews. In the text below "H." indicates the location of the excerpted text in the Handbook; the term "(All)" indicates standards applicable to all professional undergraduate art/design degrees including industrial design; "(Industrial Design)" indicates specific standards for that major.

Item 1. (All)

Common Body of Knowledge and Skills (H.VIII.B.)

- 1. Studio.** Studies, practice, and experiences in studio subjects are of prime importance in the preparation of students for professional careers in art and design. The excellence of the creative work produced by students is the best determinant of the adequacy of the studio studies offered by an institution. Creative work includes, but is not limited to, conceptualization, process, product, and critique.

Irrespective of major or specialization, students must:

- a. Gain functional competence with principles of visual organization, including the ability to work with visual elements in two and three dimensions; color theory and its applications; and drawing.
- b. Present work that demonstrates perceptual acuity, conceptual understanding, and technical facility at a professional entry level in their chosen field(s).
- c. Become familiar with the historical achievements, current major issues, processes, and directions of their field(s).
- d. Be afforded opportunities to exhibit their work and to experience and participate in critiques and discussions of their work and the work of others.

Studio work normally begins at the freshman level and extends with progressively greater intensity throughout the degree program.

There should be opportunities for independent study at the advanced level that includes appropriate supervision and evaluation upon completion.

- 2. Art/Design History, Theory, and Criticism.** Through comprehensive courses in the history of art/design, students must:

- a. Learn to analyze works of art/design perceptively and to evaluate them critically.
- b. Develop an understanding of the common elements and vocabulary of art/design and of the interaction of these elements, and be able to employ this knowledge in analysis.
- c. Acquire the ability to place works of art/design in historical, cultural, and stylistic contexts.

In certain areas of specialization, it is advisable to require that students study the historical development of works within the specialization.

Normally, studies in art and design history and analysis occupy at least 10% of the total curriculum.

- 3. Technology.** Students must acquire a working knowledge of technologies and equipment applicable to their area(s) of specialization.

- 4. Synthesis.** While synthesis is a lifetime process, by the end of undergraduate studies students should be able to work independently on a variety of art and/or design problems by combining, as appropriate to the issue, their capabilities in studio, analysis, history, and technology.

Item 2. (All)

Results (H.VIII.C.)

Upon completion of any specific professional undergraduate degree program:

1. Students must demonstrate achievement of professional, entry-level competence in the major area of specialization, including significant technical mastery, capability to produce work and solve professional problems independently, and a coherent set of artistic/intellectual goals that are evident in their work.
2. Students must demonstrate their competence by developing a body of work for evaluation in the major area of study. A senior project or final presentation in the major area is required.
3. Students must have the ability to form and defend value judgments about art and design and to communicate art/design ideas, concepts, and requirements to professionals and laypersons related to the practice of the major field. They are able to work collaboratively as appropriate to the area(s) of specialization.

Item 3. (Industrial Design)

Essential Competencies, Experiences, and Opportunities (H.X.E.3.)

(in addition to those stated for all professional degree programs in VIII.B. and C.):

- a. Ability to design products and systems, including but not limited to a foundational understanding of how products and systems are made; what makes them valuable; how they are developed, realized, and distributed; and how they are related to environmental and societal issues and responsible design.
- b. Ability to use technologies and tools associated with multi-dimensional design representation, development, dissemination, and application.
- c. Foundational knowledge of the history of industrial design, including but not limited to the influences of works and ideas on the evolution of design study and practice over time and across cultures.
- d. Fundamental knowledge of user experience, human factors, applied ergonomics, contextual inquiry, user preference studies, and usability assessments.
- e. Ability to research, define, and communicate about problems, variables, and requirements; conceptualize and evaluate alternatives; and test and refine solutions, including the ability to synthesize user needs in terms of value, aesthetics, and safety.
- f. Ability to communicate concepts and specifications in verbal, written, and multiple media at levels ranging from abstraction and sketches, to detailed multi-dimensional, functional, and visual representations.
- g. Functional knowledge of professional design practices and processes, including but not limited to ethical behaviors and intellectual property issues such as patents, trademarks, and copyrights.
- h. Knowledge of basic business practices and their relationship to industrial design as well as the ability to investigate and reconcile the needs related to entrepreneurship, marketing, engineering, manufacturing, servicing, and ecological and social responsibility in the process associated with specific design projects.
- i. Acquisition of collaborative skills and the ability to work effectively in interdisciplinary or multidisciplinary teams.

- j. Opportunities for advanced undergraduate study in areas that intensify skills and concepts, and that deepen and broaden knowledge of the profession of industrial design.
- k. Experience in applying design knowledge and skills beyond the classroom is essential. Opportunities for field research and experience, internships, collaborative programs with professional and industry groups, and international experiences are strongly recommended. Such opportunities to become oriented to the working profession should be supported through strong advising.

Item 4. (All Professional Undergraduate Design Degrees)

Essential Resource-based Opportunities (H.X.B.)

Institutions must provide the following in terms of each specific specialization or field of design it offers.

1. Easy access to studios appropriately equipped for teaching, learning, and work. See Section II.F.
2. Easy access to libraries with (1) appropriate design collections in the field of specialization, (2) resources that are current and appropriate to the specific curricula being offered, and (3) reference material in other relevant disciplines, such as the social sciences and the humanities. See Section II.G.
3. Easy access to tutorials that develop software and other technical capabilities. See Section IV.B.1.
4. Easy access to appropriately equipped labs and technological support necessary for the execution of design solutions. See Section II.F.
5. Continuous regular access to instruction and critique under faculty with educational and professional backgrounds in the area of design specialization. Instruction for the number of students enrolled, and sufficient numbers of qualified faculty to provide the diversity of expertise required for a comprehensive current education in the field of specialization. See Section II.E.

Item 5. (All)

General Studies Competencies (H.VIII.A.6.)

- a. **Competencies.** Specific competency expectations are determined by the institution. Normally, students holding a professional undergraduate degree in art and/or design are expected to have:
 - (1) The ability to think, speak, and write clearly and effectively, and to communicate with precision, cogency, and rhetorical force.
 - (2) An informed acquaintance with the mathematical and experimental methods of the physical and biological sciences and with the main forms of analysis and the historical and quantitative techniques needed for investigating the workings and developments of modern society.
 - (3) An ability to address culture and history from a variety of perspectives.
 - (4) Understanding of, and experience in thinking about, moral and ethical problems.
 - (5) The ability to respect, understand, and evaluate work in a variety of disciplines.
 - (6) The capacity to explain and defend views effectively and rationally.
 - (7) Understanding of and experience in art forms other than the visual arts and design.

Item 6. (Industrial Design)

Recommendations for General Studies (H.X.E.2.)

(See Item 5 above.) Studies in the physical and natural sciences, the social and behavioral sciences, quantitative reasoning, and the humanities are important for industrial designers. Students should be able to make connections among these disciplines and their work in industrial design.

Item 7. (All)

Recommendations for Professional Studies (H.VIII.D.)

Students engaged in professional undergraduate degrees in art/design should have opportunities to:

1. Gain a basic understanding of the nature of professional work in their major field. Examples are: organizational structures and working patterns; artistic, intellectual, economic, technological, and political contexts; and development potential.
2. Acquire the skills necessary to assist in the development and advancement of their careers, normally including the development of competencies in communication, presentation, and business skills necessary to engage in professional practice in their major field.
3. Develop teaching skills, particularly as related to their major area of study.
4. Explore areas of individual interest related to art/design in general or to the major. Among the many possible examples are: aesthetics, theory, specialized topics in art/design history, analysis, and technology.
5. Explore multidisciplinary issues that include art and design.
6. Practice synthesis of a broad range of art/design knowledge and skills, particularly through learning activities that involve a minimum of faculty guidance, where the emphasis is on evaluation at completion (see Section III.G.).

Please Note:

For specific information regarding curricular structure, see H.X.E.1. Normally, approximately 65% of a 120 semester hour program is in art/design studies to ensure that time is available to develop the requisite competencies.

For a table of contents for all standards, see *NASAD Handbook*.