This template is to be used only by programs that have received specific written approval from the Provost's office to proceed with internal proposal development and review. A separate proposal must be submitted for each individual new degree program.

MASTER OF INDUSTRIAL DESIGN DEGREE PROGRAM College/School(s) offering this degree: The Herberger Institute for Design and the Arts Unit(s) within college/school responsible for program: The Design School/ Industrial Design faculty If this is for an official joint degree program, list all units and colleges/schools that will be involved in offering the degree program and providing the necessary resources: Proposed Degree Name: Master of Industrial Design (MID) in Industrial Design Master's Degree Type: MID Proposed title of major: Industrial Design Is a program fee required? Yes No \(\) Is the unit willing and able to implement the program if the fee is denied? Yes No 🖂 Requested effective term: Summer 2012 (The first semester and year for which students may begin applying to the program) PROPOSAL CONTACT INFORMATION (Person to contact regarding this proposal) Name: Darren Petrucci Title: Director Phone: 965-9400 email: <u>Darren.petrucci@asu.edu</u>

DEAN APPROVAL

This proposal has been approved by all necessary unit and College/School levels of review, and the College/School(s) has the resources to offer this degree program. I recommend implementation of the proposed degree program. (Note: An electronic signature, an email from the dean or dean's designee, or a PDF of the signed signature page is acceptable.)

College Dean name:	
(if more than one college involved)	

ARIZONA STATE UNIVERSITY PROPOSAL TO ESTABLISH A NEW GRADUATE DEGREE

This proposal template should be completed in full and submitted to the University Provost's Academic Council [mail to: curriculumplanning@asu.edu]. It must undergo all internal university review and approval steps including those at the unit, college, and university levels. A program may not be implemented until the Provost's Office notifies the academic unit that the program may be offered.

DEGREE PROGRAM INFORMATION Master's Type: other (E.g. MS, MA, MAS or PSM) If Degree Type is Other, provide proposed degree type: Master of Industrial Design and proposed abbreviation: MID Proposed title of major: Industrial Design

1. PURPOSE AND NATURE OF PROGRAM

A. Brief program description (This is a catalog type description of no more than 250 words. Include the distinctive features of the program that make it unique. Do not include program or admission requirements.)

The Master of Industrial Design degree is a 60 credit-hour studio-based degree in which students will learn to design new product-service systems that solve critical global problems. Students will engage in research, brainstorming, idea visualization, prototyping and testing of creative solutions that address critical problems we face in the world today. Graduates of this program will be adept in using principles of design innovation, sustainability, and systems thinking in problem-solving, and are expected to find positions in industry as well as academia after graduation.

- B. Total credit hours required for the program: 60
 C. Are any concentrations to be established under this degree program? ☐ Yes ☒ No
- **2. PROGRAM NEED.** Explain why the university needs to offer this program (include data and discussion of the target audience and market).

The Master of Industrial Design degree will equip students with capabilities that will allow them to perform at a strategic level as designers, design leaders, and innovators in companies. As this will serve as a terminal degree in Industrial Design, they will also be prepared to teach at the university level. Students will engage in projects with local and multinational corporations, and assist in transferring technology into the market through the design of new products and services.

There are more than 500 industrial design undergraduate programs in the world, and new ones appearing on a regular basis. There is a growing recognition of the role of design in business and academia. The target audience for this degree includes recent graduates of design programs as well as practitioners interested in furthering their education.

The recent integration of five design disciplines of architecture, industrial design, interior design, landscape architecture, and visual communication design into one unit, The Design School, creates a unique opportunity to establish the most comprehensive and collaborative design school in the country. The Design School also plays an important role within the context of the community it serves. As a public professional school, we

have a responsibility to contribute to the public good. Our success, and the success of our graduates, directly translates into a better future for the greater metropolitan area. The Design School is poised uniquely to offer such a degree, given its trans-disciplinary make-up and mission. The addition of a professional studio based master's degree contributes a component missing in the current offerings.

Toward this end, the school is working on a curriculum that establishes cross disciplinary proficiencies (common courses), a common semester schedule for optimizing cross fertilization, and new trans-disciplinary collaborative initiatives for expanding design thinking research and application. This comprehensive/collaborative curriculum will be the most advanced offered nationally, and with the right marketing, will draw students to the program that previously might not have considered ASU. The MID degree brings the necessary components of product and systems design and new product development to the School.

3. IMPACT ON OTHER PROGRAMS. List other academic units that might be impacted by the proposed program and describe the potential impact (e.g., how the implementation of this program might affect student headcount/enrollment, student recruitment, faculty participation, course content, etc. in other programs). Attach letters of collaboration/support from impacted programs.

There are no other industrial design undergraduate or graduate programs in the state of Arizona. Therefore, the implementation of this program does not affect recruitment, faculty or courses in other programs at ASU.

Current studio based graduate degrees in the School, which are the Master of Architecture and the Master of Landscape Architecture degrees, offer a 2 year program for those that come with an undergraduate degree in the discipline and a 3 year and a summer (thus called 3+ program) for those students who come with an undergraduate degree outside the discipline. The proposed MID degree will follow the same structure and offer both a 2yr and a 3+ program. Procedures are currently in place within The Design School to recruit students and process degree applications for the existing graduate degrees in the School, the Master of Architecture (M.Arch), Master of Landscape Architecture (MLA), Master of Science in Built Environment (MSBE), and Master of Science in Design (MSD).

The opportunity for collaborative work in the new studio courses will build upon existing programs in architecture and landscape architecture. In addition, these studios contribute critical subject matter to the existing collaborative environment in The Design School, supporting its mission of integrated design at all scales. In particular the international traveling studio offerings, which focus on the global context of design, will expand to include this program. The current studio based Master degree programs (Architecture, Landscape Architecture, Urban Design) in the School require an international travel component in their final fall studios. The proposed MID program is structured to meet this existing International Travel Studio requirement in the school. Students travel within the studio structure to international locations for up to 14 days with their respective studio faculty. All travel in the school is synchronized to accommodate other courses taken by these students in the school during the semester. Student travel is supported through graduate program fees

There is currently a structure in place within The Design School to offer concurrent graduate degrees. Almost 25% of graduate students in TDS earn two graduate degrees. The addition of the MID degree will only increase this percentage due to its close relationship with architecture. Therefore, it is possible that this new MID program will also increase the visibility and enrollment in the existing masters programs in The Design School (M.Arch, MLA, MSBE, MSD, and the Master of Urban Design - MUD).

4. PROJECTED ENROLLMENT How many new students do you anticipate enrolling in this program each year for the next five years? Please note, The Arizona Board of Regents (ABOR) requires nine masters and six doctoral degrees be awarded every three years. Thus, the projected enrollment numbers must account for this ABOR requirement.

In year 1, 8 students will be admitted to the 3+ program (Year 1 - Total 8).

In year 2, those 8 students continue and begin the 2 year program and 4 new students are added to begin the 2 year program. Also in year two, 8 students are admitted to begin the 3+ program (Year 2 - Total 20).

In year 3, 12 students who have just finished the first year of the 2 year program begin their final year and graduate. The 8 students who just finished their 3+ year will enter the first year of the 2 year program, 4 new students are added to begin the 2 year program and 8 students are admitted to the 3+ year (Year 3- Total 32). Year 3 will be the first time we graduate 9-12 students and each year thereafter.

In year 4, the eight new students beginning the 3+ year and the 4 new students that are added to begin the 2 year program result in 12 new students entering the program, which balances with the 12 students graduating from the previous year (Year 4 - Total 32).

5-YEAR PROJECTI	ED ANNUAL ENRO	NNUAL ENROLLMENT			
Please utilize the following tabular format.	1 st Year	2 nd Year (Yr 1 continuing + new entering)	3 rd Year (Yr 1 & 2 continuing + new entering)	4 th Year (Yrs 1, 2, 3 continuing + new entering)	5 th Year (Yrs 1, 2, 3, 4 continuing + new entering)
Number of Students Majoring (Headcount)	8	20	32	32	32

5. STUDENT LEARNING OUTCOMES AND ASSESMENT

A. List the knowledge, competencies, and skills students should have when they graduate from the proposed degree program. (You can find examples of program Learning Outcomes at (http://www.asu.edu/oue/assessment.html).

Knowledge:

Fundamentals of design research

New product innovation

Product and system design and development

Experience design

Sustainable design

Competencies and Skills:

Problem-solving

Conducting design (qualitative and quantitative) research

Visual representation

Verbal/oral/visual presentation skills

Modeling and Prototyping

B. Describe the plan and methods to assess whether students have achieved the knowledge, competencies and skills identified in the Learning Outcomes. (You can find examples of assessment methods at (http://www.asu.edu/oue/assessment.html).

These are the learning outcomes:

Graduates of the MID program

- Will be able to create a research design and carry out qualitative as well as quantitative research for new product development.
- Will be able to follow all the steps from problem seeking to final design implementation in any new product innovation project.
- Will know how to create comprehensive experience designs for new product-service systems.
- Will know the fundamental methods of life-cycle assessment and environmental impact factor calculation.

 Will be able to present effectively their design ideas through a variety of media including but not limited to sketching, digital and analog rendering, computer modeling as well as physical modeling and rapid prototyping.

As part of the capstone course, students will present a public exhibition of their project where faculty will evaluate their work on the basis of the learning outcomes listed above.

The capstone course and the related studio project provide an opportunity for the in-depth investigation of a topic, which adds to the body of knowledge in industrial design. Granting of the degree requires candidates to complete this capstone project successfully. The capstone project is based on individual research, professional design courses, and general university classes, plus meetings between the student and faculty serving on the student's capstone committee.

Student learning will be assessed through exams, classroom and homework assignments as well as projects completed in lecture courses.

(See attached Academic Program Assessment Plan).

6. ACCREDITATION OR LICENSING REQUIREMENTS (if applicable). Provide the names of the external agencies for accreditation, professional licensing, etc. that guide your curriculum for this program, if any. Describe any requirements for accreditation or licensing.

NASAD: National Association of Schools of Art and Design

Terminal master's degrees- Master of Fine Arts or equivalent- with multiple core objectives in studio and research or scholarship require the equivalent of at least two years of full-time graduate study with a minimum of 60 semester hours or 90 quarter hours.

- a. Degrees combining studio and scholarship shall prepare professionals who develop research studies and utilize findings in professional design practice.
- b. Coursework and research projects for this degree category should include studio work, such as designing and testing prototypes and the execution of demonstration projects that illustrate design research concepts or methodologies.
- c. Final requirements for master's students may be a written document or a visual body of work demonstrating research approaches or results.

7. FACULTY, STAFF AND RESOURCE REQUIREMENTS

A. Faculty

i. Current Faculty. List the name, rank, highest degree, area of specialization/expertise and estimate of the level of involvement of all current faculty who will teach in the program.

The potential to collaborate with existing architecture and landscape architecture faculty provides a foundation of interdisciplinary learning to assist in the understanding of integrated practice. Faculty dedicated to this degree program will include but are not limited to:

Prasad Boradkar, Associate Professor and Coordinator, MA, MDes, design/material culture; 10%

Jacques Giard, Professor, PhD, design development; 5%

Donald Herring, Associate Clinical Professor, MSD, human factors/ergonomics; 10%

Aisling Kelliher, Assistant Professor, PhD, design/new media technologies; 5%

Lauren McDermott, Associate Professor, Assistant Director, MFA, design education; 10%

Dosun Shin, Associate Professor, MFA, assistive device design; 10%

John Takamura, Assistant Professor, MSD, design/social entrepreneurship/branding; 10%

Philip White, Associate Professor, MFA, sustainable design; 10%

Peter Wolf, Lecturer, MSD. Qualitative research methods for design/design history; 10%

ii. New Faculty. Describe the new faculty hiring needed during the next three years to sustain the program. List the anticipated hiring schedule and financial sources for supporting the addition of these faculty.

Three new full-time faculty equivalents with expertise in the following areas:

Industrial Design Practice (with an understanding of the business side of new product development)

Analog and digital design visualization skills

Product Development

The school will collaborate with engineering to provide needed instruction in Industrial Design Engineering. The Design School is currently collaborating with the College of Technology and Innovation in their GlobalResolve initiative, and is developing collaborative course work that can be shared between industrial design program and their human centered engineering curriculum.

Year one- to begin Fall 2012: One Full-Time equivalent new faculty member. Year two- to begin Fall 2013: One Full-Time equivalent new faculty member. Year three- to begin Fall 2014: One Full-Time equivalent new faculty member.

A program fee of \$4850 per year is approved for the proposed new Master of Interior Design program and is consistent with the fees approved for other studio-based graduate programs in The Design School. The Design School has proposed taking a portion of this graduate fee to hire faculty in support of instruction.

Graduate professional programs require on-going investments in technology, curriculum, new faculty appointments to enhance the program, and infrastructure to support the program. The requested fee will help to provide the appropriate amenities for studio programs in a design school of national standing, including but not limited to: new technology capabilities, studio upgrades, instruction from industry professionals, student professional development opportunities, study abroad and international studio programming and services, teaching and research assistantships, additional library resources, international studio travel subsidies, graduate conference travel support, and student project reports and publications.

iii. Administration of the program. Explain how the program will be administered for the purposes of admissions, advising, course offerings, etc. Discuss the available staff support.

In 2011, The Design School hired a second Graduate Coordinator. The Design School now has a Graduate Coordinator responsible for student recruitment and application, and one Graduate Coordinator in charge of the students from admissions to matriculation. This new position was created in anticipation of the new graduate program proposals. Additionally, one of the Assistant

Directors in the School works with each coordinator of the School's respective graduate programs to manage their curricula.

B . Resource requirements to launch and sustain the program. Describe any new resources required for this program's success such as new staff, new facilities, new library resources, new technology resources, etc.

During the initial stages of the program, current facilities and staffing should suffice. With the long-term growth of the program, there will be a need for additional staff and faculty, facilities (i.e., dedicated studio space), and other resources. The Design School also has a plan to repurpose and reallocate existing space in order to accommodate the necessary studio education space for this degree offering.

8. CURRICULAR STRUCTURE OF THE PROPOSED PROGRAM

This program will offer a two-year curriculum for those holding an undergraduate degree in the discipline, and a 3+ curriculum for those students who come with a degree outside the design disciplines.

- **A. Admission Requirements** The requirements listed below are Graduate College requirements. Please modify and/or expand if the proposed degree has additional admissions requirements.
 - i. **For the two-year program:** Minimum of a bachelor's degree (*or equivalent*) or a graduate degree from a regionally accredited College or University of recognized standing in a related field such as Undergraduate degree in the following disciplines: Industrial Design, Product Design or equivalent is required. In addition, applicants will submit a portfolio of design work.

Admission requirements for the 3+ Year Program: The 3+ program accepts applications from students who do not hold an undergraduate degree in industrial design. 3+ applicants must submit a portfolio of creative work. Criteria for successful admission will concentrate on the applicant's design creativity and clear communication skills (as evidenced in the submitted design portfolio), academic capability, and probable contribution to the program through a variety of backgrounds and experiences.

- **ii. GPA.** Minimum of a 3.00 cumulative GPA (scale is 4.0=A) in the last 60 hours of a student's first bachelor's degree program
- iii. English Proficiency Requirement for International Applicants. If applicable list any English proficiency requirements that are higher than and/or in addition to the Graduate College requirement. (See Graduate College website http://graduate.asu.edu/admissions/international/english-proficiency):

iv.	Required A ☐GRE	Admission Examin	ations. Millers Analogies	⊠None Required
v.	= =		ndicate all terms for which n deadline dates, if any:	applications for admissions are accepted and
		Fall	Deadline (month/year):	
		Spring	Deadline (month/year):	
		Summer closed.	Deadline (month/year):	January 15th and every two weeks after until

- **B. Degree Requirements.** Below provide the curricular requirements for the proposed degree program.
 - i. Total credit hours (cr hrs) required for the degree program: 60 for the two-year program

ii. Core courses. List all required core courses and total credit hours for the core (required courses other than internships, thesis, dissertation, capstone course, etc.). Omnibus number courses cannot be used as core courses. Permanent numbers must be requested by submitting course proposal to ACRES for approval.

The curriculum below summarizes the requirements for the 2-year program. Additional requirements for the 3+ program are listed at the end of this section on page 9. Also please see the appendix for the timeline of courses for both the 2 yr and the 3+ program.

Total cr hrs for required core courses: 40 credit hours

Course	Course title	Credit	New
prefix &		hours	course?
number			
DSC 501	Qualitative Research Methods in Design	3	Y □ N ⊠
IND 521	Advanced Industrial Design Studio I	5	Y ⊠ N □
IND 522	Advanced Industrial Design Studio II	5	Y ⊠ N 🗌
IND 621	Advanced Industrial Design Studio III	5	Y 🛛 N 🗌
IND 544	Human Factors Systems Documentation	3	Y □ N ⊠
IND 598	Topic: Digital Ideation and Rapid Prototyping	3	Y □ N ⊠
DSC 598	Topic: The Culture of Objects	3	Y □ N ⊠
IND 598	Topic: Solving Problems with LCA	3	Y □ N ⊠
ATE 598	Topic: Sustainability of the Built Environment	3	Y □ N ⊠
DSC 511	Design Research	3	Y □ N ⊠
AAD 552	Architectural Management II	3	Y □ N ⊠
IND 513	Industrial Design Seminar: Contemporary Issues	1	Y ⊠ N □

iii. Elective Courses

Total cr hrs for program electives: 12 credit hours

Provide a sample list of elective courses:

Course prefix &	Course title	Credit hours	New course?
number			
DSC 527	Contemporary Design Theory	3	Y □ N ⊠
COM 508	Quantitative Research Methods in Communication	3	Y □ N ⊠
COM 598	Topic: Methods of Visual Ethnography	3	Y N N
SOS 511	Methodology of Sustainability Research and Problem	3	Y □ N ⊠
	Solving		
SOS 598	Topic: Human Dimensions of Sustainability	3	Y □ N ⊠
AME 598	Topic: Physical Computing	3	Y □ N ⊠
DSC 561	Methods in Visual Communication	3	Y □ N ⊠
GRA 523	Advanced Interactive Design	3	Y □ N ⊠
GRA 522	Motion Graphic Interactive Design	3	Y N

(Please expand table as needed. Right click in white space of last cell. Select "Insert Rows Below")

iv.	400	D-Level Courses. No more than 6 credit hours of 400-level coursework can be included on graduate
	stu	dent program of study.
	1.	Are 400-level ASU courses allowed on student program of study for this degree? X Yes No
	2.	If yes, how many credit hours? 6

Additional Requirements (if applicable). Provide a brief description of any additional requirements (e.g. internships, clinicals, field study, etc.)

There will be a required 3 credit hour clinical internship (IND 584) offered during the summer between the 1st and final year of study.

Total cr hrs for other required courses: 3 credit hours

Course prefix & number	Course title	Credit hours	New course?
IND 584	Clinical Internship	3	Y 🗌 N 🖂

- v. Total cr hrs required for research (if applicable):
- vi. Culminating experience for the proposed program (please check all that apply and provide requested information): 5 credit hours

	Required?	Brief description of the applied project or the capstone course, as applicable.	Course prefix and number	Credit hours
Thesis (master's only)				
Applied Project (master's only)				
Capstone course (master's only)		Final studio of capstone projects that reflect a culminating synthesis of industrial design ideas	IND 622	5

⁽Please expand table as needed. Right click in white space of last cell. Select "Insert Rows Below")

Additional cr hrs for required core courses for the 3+ track: 21 credit hours

Course prefix & number	Course title	Credit hours	New course?
IND 509	Foundation Industrial Design Seminar	3	Y ⊠ N □
IND 510	Foundation Industrial Design Studio	6	Y ⊠ N 🗌
IND 511	Core Industrial Design Studio I	6	Y ⊠ N 🗌
IND 512	Core Industrial Design Studio II	6	Y ⊠ N 🗌

vii.	Master's program comprehensive exams, please check all that apply (Please note: for doctoral
	programs, a written and an oral comprehensive exam are required.)

No master's comprehensive exam is required for the proposed MID degree.

- viii. Committee: Required Number of Thesis or Dissertation Committee Members (must be at least 3 including chair or co-chairs):): No thesis required, thus is not applicable
- ix. Foreign Language Exam.

Foreign Language Examination(s) required? Yes N	Foreign Language Examination(s) required? 🔲 Yes 🔀	No
---	---	----

- x. Course Prefix(es) Provide the following information for the proposed graduate program.
 - **a.** Will a new course prefix(es) be required for this degree program?

Yes ☐ No ☒

- b. If yes, complete the <u>Course Prefixes / Subjects Form</u> for each new prefix and submit it as part of this proposal submission.
- **xi. New Courses Required for Proposed Degree Program.** Provide course prefix, number, title, and credit hours and description for any new courses required for this degree program.

IND 509 Foundation Industrial Design Seminar (3 cr hrs)

Industrial design projects with an emphasis on problem identification and analysis.

IND 513 Industrial Design Seminar: Contemporary issues, (1 cr hr)

A critical examination of current industrial design issues, topics, and discourse that impact the discipline. May be repeated for credit.

The following studio courses will follow the model of existing studios in the other graduate programs in the Design School with specific focus on industrial design problems:

IND 510 Foundation Industrial Design Studio (6 cr hrs)

IND 511 Core Industrial Design Studio I, (6 cr hrs)

Industrial design projects with an emphasis on visualization techniques.

IND 512 Core Industrial Design Studio II, (6 cr hrs)

Industrial design projects with an emphasis on research and visualization techniques.

IND 521 Advanced Industrial Design Studio I, (5 cr hrs)

Industrial design projects with an emphasis on research, analysis, documentation and visualization techniques.

IND 522 Advanced Industrial Design Studio II, (5 cr hrs)

Industrial design projects with an emphasis on research, analysis, documentation and visualization techniques.

IND 621 Advanced Industrial Design Studio III, (5 cr hrs)

Design problems emphasizing the global context, working with a multidisciplinary team, exploring/solving design for every scale

IND 622 Advanced Industrial Design Studio IV, (5 cr hrs)

Individual or team-based capstone, reflecting a culminating synthesis of industrial design practice

Attachment I – (Assessment Plan Information)

Please use the space below to identify two program outcomes, two measures for each outcome, and at least one performance criterion for each measure. Complete information about assessment planning processes can be found at http://asu.edu/oue/assessment.

Outcome 1

MID students will be prepared to successfully enter the profession or a related field

Measure 1.1 (Direct)

Successful completion of professional internship

Performance Criterion 1.1 (Required, and a second one is optional.)

Satisfactory performance will be indicated when the percentage students in keeping with national employment trends will successfully secure internships in the profession or a related field and 75% of those students will receive a satisfactory or higher performance evaluation

Measure 1.2 (Direct or indirect)

Successfully secure a professional position in an industrial design firm or related field

Performance Criterion 1.2 (Required, and a second one is optional.)

Satisfactory performance will be indicated when the percentage of graduates successfully securing a professional position in an industrial design firm or related field will be not less than 75%.

Outcome 2

MID students are able to translate ideas and concepts into plans for built works in keeping with professional standards and The Design School Design Imperatives (History, Context, Program, Technology, Construction, Representation)

Measure 2.1 (Direct)

culminating project (IND 622) juried by faculty and professionals

Performance Criterion 2.1 (Required, and a second one is recommended.)

Satisfactory performance will be indicated when more than 75% of the students meet this outcome on the first attempt

Measure 2.2 (Direct or indirect)

Comprehensive studio (IND 522) juried by faculty and professionals

Performance Criterion 2.2 (Required, and a second one is recommended.)

Satisfactory performance will be indicated when more than 75% of the students meet this outcome on the first attempt

Attachment II – (MID Course Sequence Information)

Sequence of Courses (by Semester)

Degree Awarded: Master of Industrial Design

The Master of Industrial Design is a terminal professional degree program at ASU. There are two programs of study available:

- 1. A two-year program for applicants who have completed the four-year B.S.D. in Industrial Design at ASU, or an equivalent degree from another school that offers an accredited professional degree in industrial design.
- 2. A three-plus-year program track for applicants with an undergraduate degree in a discipline or field other than industrial design.

Degree Requirements:

60 credit hours including the capstone course IND 622, or 102 credit hours including the capstone course IND 622.

Two-year program

Requirements involve completing 14 credit hours per semester. A summer internship is required after the first full year of study. Students who can adequately demonstrate competence through experience or previous academic course work for any of the specific requirements outlined below are encouraged to petition the graduate coordinator for a course substitution.

Typical Plan of Study

Notes: -new courses shown in italic type,
-existing courses needing permanent numbers are followed by *

First Year (Fall) 15 credit hours

DSC 511 Design Research (3hrs)

DSC 598* The Culture of Objects (3hrs)

IND 521 Advanced Industrial Design Studio I (5hrs)

IND 513 Industrial Design Seminar: Contemporary issues (1hr)

IND 544 Human Factors Systems and Documentation (3hrs)

First Year (Spring) 14 credit hours

DSC 501 Qualitative Research in Design (3hrs)

Professional Design elective (3hrs)

ATE 598 Sustainability of the Built Environment (3hrs)

IND 522 Advanced Industrial Design Studio II (5hrs)

(Summer) 3 credit hours

IND 584 Clinical Internship (3hrs)

Final Year (Fall) 14 credit hours

IND 598* Solving Problems with Life Cycle Assessment (3hrs) Professional Design elective (3hrs) Professional Design elective (3hrs) IND 621 Advanced Industrial Design Studio III (5hrs)

Final Year (Spring) 14 credit hours

AAD 552Architectural Management II (3hrs)
IND 598* Digital Ideation and Rapid Prototyping (3hrs)
Professional Design elective (3hrs)
IND 622 Advanced Industrial Design Studio IV (5hrs)

Three-plus-year program track

The three-plus-year graduate program track requires a minimum of 81 semester hours of graduate-level course work and 21 semester hours of deficiency course work, which make up the total number of 102 semester hours of approved courses and electives. For most students, the 3+ program involves 12 semester hours in the first summer and 14 to 15 semester hours in each of the subsequent six semesters. A summer internship is required after the second full year of study. Students who can adequately demonstrate previous academic course work for any of the deficiencies are encouraged to petition the graduate coordinator for a course waiver.

Typical Plan of Study

Notes: -new courses shown in italic type,

- -existing courses needing permanent numbers are followed by *
- -bolded courses are considered deficiencies and do not count toward official graduate program of study.
- -academic unit will track all deficiency coursework

Plus Year (Summer) 12 credit hours

DSC 236 Introduction to Computer Modeling (3hrs)

IND 509 Foundation Industrial Design Seminar (3hrs)

IND 510 Foundation Industrial Design Studio (6hrs)

Plus Year (Fall) 15 credit hours

IND 227 Visual Methods for Problem Solving (3hrs)

IND 242 Materials and Design (3hrs)

IND 316 20th Century Design I (3hrs)

IND 511 Core Industrial Design Studio I (6hrs)

Plus Year (Spring) 15 credit hours

IND 261 Industrial Design II (3hrs)

IND 317 20th Century Design II (3hrs)

IND 428 Design Presentation (3hrs)

IND 512 Core Industrial Design Studio II (6hrs)

Note: The plus year is followed by the 2 year program

(Fall) 15 credit hours

DSC 511 Design Research (3hrs)

DSC 598* The Culture of Objects (3hrs)

IND 521 Advanced Industrial Design Studio I (5hrs)

IND 513 Industrial Design Seminar: Contemporary issues (1hr)

IND 544 Human Factors Systems and Documentation (3hrs)

(Spring) 14 credit hours

DSC 501 Qualitative Research in Design (3hrs)

Professional Design elective (3hrs)

ATE 598 Sustainability of the Built Environment (3hrs)

IND 522 Advanced Industrial Design Studio II (5hrs)

(Summer) 3 credit hours

IND 584 Clinical Internship (3hrs)

Final Year (Fall) 14 credit hours

IND 598* Solving Problems with Life Cycle Assessment (3hrs)

Professional Design elective (3hrs)

Professional Design elective (3hrs)

IND 621 Advanced Industrial Design Studio III (5hrs)

Final Year (Spring) 14 credit hours

AAD 552 Architectural Management II (3hrs)

IND 598* Digital Ideation and Rapid Prototyping (3hrs)

Professional Design elective (3hrs)

IND 622 Advanced Industrial Design Studio IV (5hrs)