North Carolina State University College of Design Department of Graphic Design + Industrial Design

MASTER OF INDUSTRIAL DESIGN

Graduate Student Handbook 2024-2025

This handbook is intended to provide supplemental guidance in planning industrial design graduate studies. It includes information from the <u>NC State Graduate School</u>. Always reference the <u>NC State Graduate Handbook</u>, as it includes comprehensive information that is updated regularly.

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Philosophy of Graduate Education at NC State

Graduate education is another stage in intellectual development. It is different from undergraduate education in that the student is encouraged to establish premises, to hypothesize and to defend both the procedure and the conclusions of independent investigation. The burden of proof for the verifiability of knowledge rests with the student, not on the faculty member. Students work as partners with the faculty in the creation, expansion, conservation, and transmission of knowledge. Research and scholarly inquiry form the foundation. Emphasis is placed upon the student's scholarly development through coursework, studios, seminars, research and independent investigation. Graduate education should not lose sight of the fundamental differences between undergraduate and graduate education: the former is outer-and other-directed, while the latter is basically inner-and self-directed. Since the academic posture of the teacher and student is modified — indeed reversed — it is mandatory that the essence of graduate education be understood by all to achieve the desired objectives.

Finally, a new element of graduate education is gaining an expanded role, namely, post-baccalaureate lifelong learning. Two factors play a dominant role in this phenomenon: the first is the vast increase in knowledge, especially in science and technology, and the demands of society that individuals be abreast of recent developments to serve it better. The second is modern communications technology. There are fields of study today that did not exist a scant ten or even five years ago, and the phenomenon is gaining momentum rather than losing it. Ten years from today our universities will be teaching topics that have not yet been discovered. Add to this the fact that truly independent study is more feasible today than it has ever been in human history, thanks to advanced communication systems. All this reinforces the need, especially in graduate education, to teach the student "to learn how to learn." In the future graduate education is, in a real sense, a phase that extends "for the rest of one's life" beyond the baccalaureate degree. The implications of this reality on graduate education are profound and diverse, changing our concepts of campus life, teacher-student relationships, and the very meaning of "going to graduate school."

Organization of the College and Department

The College of Design is one of twelve major academic divisions that comprise North Carolina State University. It is a comprehensive design institution offering professional undergraduate and graduate design degrees in Architecture, Landscape Architecture, Graphic and Experience Design, Industrial Design and Media Arts + Design Technology. The College of Design also offers PhD. in Design and Doctorate of Design degrees. The College of Design is headed administratively by a Dean, who is supported by an Executive Committee composed of the heads of each academic and administrative unit in the College. A core administrative and technical staff is responsible to the Dean's office as well. A Department Head administers the Department of Graphic Design and Industrial Design. The College's Graduate Student Coordinator coordinates all graduate admissions and is responsible for student records and all official communications between graduate students and the Graduate School.

In addition, the Department's Director of Graduate Programs for Industrial Design is responsible for advancement reviews and advising within the department's graduate program. Final decisions on all such matters remain the responsibility of the Department Head in consultation with the Director of Graduate Programs and faculty.

Industrial Design Faculty and Administrative Team

The industrial design faculty is distinguished with numerous teaching, research, and professional design awards. They have contributed juried articles to professional journals, presented papers at national and international conferences, served on editorial boards, on the boards of national and international organizations, served on national and international design award juries, headed national and international design education committees, and have served as design consultants to foreign countries design and educational programs.

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THE MASTER OF INDUSTRIAL DESIGN CURRICULUM

Objectives of Graduate Education in Industrial Design at NCSU

The Master of Industrial Design degree is intended as preparation for students assuming roles in the profession of industrial design. Currently within the profession and in industrial design education, this degree is considered the terminal industrial design degree. The program teaches from a generalist viewpoint and deals with all aspects of machine-made products and their relationship to people and the environment.

The Department of Graphic Design and Industrial Design at NC State University has a unique tradition of offering graduate design education to students whose undergraduate degrees and employment experiences may be either within or outside of the field of industrial design. This strategy allows us to admit two complementary profiles of students. One is a student experienced in design who is entering graduate school for the purpose of developing a specialized area of expertise or as a means of undertaking a career in design education. The other is a student with evident design ability, who is selecting design as a career choice after previous study and experience in another field. Together these two admission profiles result in a rich and diverse graduate program environment conducive to the exchange of accumulated knowledge and experiences. This approach has allowed us over the past 25 years to educate a number of graduates who have gone on to distinguish themselves as industrial design practitioners and educators. Our small program has the benefit of close connections between the students and the faculty and provides an environment where the students learn from each other as well as from the resources of the department, college, and university.

Graduate Student Learning Outcomes

In order to combine critical elements associated with advanced, highly skilled, analytical-based studio work in design, industrial design graduate students will engage in, lead, critique, and document individual inter/intra-disciplinary team investigations and project solutions. Through these endeavors:

- 1. Students are expected to utilize research methods from professional design practice and other related fields in their design process; to make judgments about the appropriateness of specific research methods and strategies for the specific nature of a design task; and to refine or develop research design methods as necessary.
- 2. Students are expected to utilize research and design methods and tools that are appropriate to support collaborative work, engaging human-subject research, and addressing complex problems.
- 3. While addressing the potential for economic, social, cultural, and technological impacts of their designs, students are expected to conceive and produce studio work that includes speculative and propositional as well as concrete, functional solutions which are three-dimensionally prototyped.
- 4. Students are expected to demonstrate verbal, oral and visual communication skills throughout their design development process including interpersonal, formal and informal presentations and critiques.
- 5. Students are expected to demonstrate an advanced professional competence in a specific design specialization or depth of knowledge through a significant body of design work associated with studios and their final project.
- 6. Students are expected to use analytical tools, design processes, technologies, and information gathered from primary and secondary sources to develop concepts, reveal patterns of information, create rationales for specific design solutions or within projects, and to engage in both solution development and evaluation.

Evidence for each learning outcome will be collected from the MID students' studio project reviews and final project proposals, reports and presentations.

The Curriculum Objectives of the Master's of Industrial Design Program

To provide a sequence of initial preparatory courses that prepares students without prior design education for graduate level coursework in design.

To provide graduate studio and seminar courses that cause the student to investigate, reflect upon, and defend their conclusions on subjects relevant to their field.

To provide our students with the experience of working on a cross-disciplinary design team

To provide students with a traditional spectrum of graduate studio coursework that assures all Master's program graduates achieve professional practice preparedness.

We encourage intellectual independence in the use of the resources of the college and university for disciplined investigation into issues of social, technological and/or cultural importance and interest. This investigation forms the basis of the graduate student's contribution to the body of knowledge of the field through their development of a final project.

These objectives reflect an important aspect of design practice and have been carried out in the program in a range of venues. Cross-functional team endeavors have included projects with students and faculty from NC State Mechanical Engineering and Business Management, projects with students from NC State Aerospace Engineering combined with research scientists at the Jet Propulsion Laboratory in Pasadena, and collaborations with the manufacturing engineering division of IBM in Research Triangle Park.

The Industrial Design Graduate Studio Experience

At the Master's level, the industrial design studio experience centers both on design methodology and intellectual inquiry. The studio courses require that students synthesize knowledge gained both through instruction and investigation, and apply that knowledge in the development of ideas and the task of problem solving. The Master's level student is expected to demonstrate a mastery of subject matter in their field, both in practical application and scholarly investigation.

The industrial design graduate students also have opportunities to participate in industry collaborative studio projects sponsored by corporate sponsors such as BD, Bosch Siemens Home Appliance, Eastman Chemical, Hanes, JLG, and Lenovo. Sponsored projects provide students with the experience of designing in a real-world setting and interacting with professional designers, engineers, and business executives.

Students are expected to maintain regular attendance in the graduate studio. Your presence in the space affords you the opportunity to interact with your peers and to immerse yourself in the graduate program. You are expected to maintain a professional workspace which is populated with current process work, yet clean. Faculty may schedule periodic visits, critiques, or presentations during these times. Students holding teaching assistantships must work around this schedule in the execution of their duties and notify faculty of assignments that take them out of the studio space during regular hours.

Purchase of a computer is expected (recommended specifications are available on the information technology <u>webpage</u>).

POLICIES AND PROCEDURES

Pre-Registration

All continuing graduate students are required to pre-register for each succeeding semester during the university's normal pre-registration period. The department does not guarantee seats in classes for which students are not pre-registered. Students who fail to pre-register and register late will be assessed a late fee and will be admitted to classes, including studio, on a space-available basis only. Students must make an advising appointment with the director of graduate programs to discuss course selection and to secure the release of the hold on registration in the online system. Students may check their registration status at any time through the MyPack Portal online.

Inter-institutional Registration

NC State participates in an Inter-institutional Registration program with the University of North Carolina at Chapel Hill, the University of North Carolina at Greensboro, and Duke University. Under this agreement, NCSU graduate students are permitted to register for classes on these other campuses, upon recommendation of their advisory committees.

Even though taking a course on another campus, the student is exclusively under the administrative direction of the NCSU Graduate School. Enrollment for courses on other campuses will take place on this campus, using special forms obtained from the Department of Registration and Records. Such courses are considered by The Graduate School to be a part of the student's normal load and the student will be billed for the courses through the NC State University Cashier's Office. During the summer, the procedure is somewhat different in that a student must be enrolled in at least one course on the NCSU campus during the same session as the requested inter-institutional registration.

When the grading system on the campus being visited is different from the NCSU System, grades received under Inter-institutional Registration will be converted. "H," "P," "L", and "F" grades earned at the University of North Carolina at Chapel Hill and "E," "G," "S" and "F" grades earned at Duke University will be converted to "A," "B," "C" and "F" grades, respectively.

Continuous Enrollment / Normal Progress

All graduate students are expected to be continuously enrolled and to make normal progress toward their degrees. Normal progress is defined as enrollment in 9 or more credit hours, with 12 credit hours representing a typical schedule. 15 credit hours is anticipated for first year Track III students and is the maximum per semester. All graduate students are expected to be enrolled continuously in design studios, unless their degree plan specifies an arranged interval.

Student Performance

Students should review policies related to academic standing in the web version of the university graduate school handbook.

Grade Appeals and Grievances

The Master of Industrial Design Program adheres to policies in the College of Design regarding grade appeals and grievances. A copy of the policies may be obtained from the Associate Dean or Department Head. Students must follow College of Design procedures before taking complaints or grievances to the Graduate School. Students should address concerns first with the faculty of record

before addressing the Department Head. Failure to follow prescribed procedures may jeopardize any appeal. The Graduate School will not become involved until all avenues of resolution have been exhausted at the department and college levels. Neither will the Dean in the College of Design enter into discussions on any grievance or appeals that have not first been addressed through the appropriate process.

Approvals for Reduced Schedules / Leaves of Absence

You must take at least 9 credit hours each semester; a schedule of 6 credit hours is allowed only with the Department Head's permission. An exception is allowed in your last (Final Project) semester, when you may have only the ID 588 Final Project Studio for 6 hours.

If you are a TA or an RA, you must have a full-time student status. If you are in your last semester and only need ID 588 (6 credit hours) in order to complete your degree, you must complete an academic course load waiver request (which can be found in MyPack Portal). Once you have completed the waiver, email the DGP and the graduate student administrator to confirm that you will be considered full-time even with the reduced course load so that you do not lose your GSSP.

If you are an international student, you must be a full-time student (for a student visa). If you are in your last semester and only need ID 588 (6 credit hours) in order to complete your degree, you must contact OIS for authorization to have a <u>Reduced Course Load</u> (RCL). You must be authorized by OIS for the RCL BEFORE dropping below full-time.

Note: Students who wish to take a temporary leave of absence or to reduce their schedule below 9 credit hours in a given semester must request and receive approval from their Graduate Advisor and the Department Head.

Transfer Credits

Requests for transfer of credits during study abroad and similar experiences should be submitted to the DGP including the course title, level (including the identification of graduate level courses at that institution), course description and syllabus, grade, evidence of work completed and degree requirement sought to be fulfilled in the GPOW. No more than 9 transfer credits are allowed. All credits must be relevant to the MID degree, be from an accredited institution and not counted toward the completion of another degree. See the Graduate Student Handbook for additional information regarding the number of credits that may be transferred at the graduate level.

MID DEGREE AND THE "TRACK" SYSTEM

The Master of Industrial Design is the terminal university degree offered by the Department of Industrial Design. In order to accommodate the wide variety of academic and professional backgrounds of our graduate candidates, the College of Design has developed two different "Tracks" of graduate study. They are defined as follows: **Track TWO**, and **Track THREE**.

Track TWO

This is a 48-credit hour program for a candidate with a four-year undergraduate degree in industrial design or a related design field. Incoming Track TWO students will be assumed to have a basic knowledge of Materials & Process which will be assessed at the beginning of the semester. The Materials & Process I (ID 511) requirement will be waived for students **passing** a basic material knowledge placement exam. Incoming Track TWO students will be registered for courses assuming a passing grade on the exam.

Specific course work will vary due to unique Special Topics and Elective offerings; however, the required curricular path for a Track TWO student should be as follows:

Year	Semester	Courses	Credits	Total Required Hours:
One	Fall	ID 500 Human Centered Design Studio	6	
		ID 512 Materials & Processes II†	3	
		ID 555 Research Methods in Design	3	
		ID 551 Fabrication and Prototyping	3	15
	Spring	ID 500 Design Research Studio	6	
		Design Elective**	3	
		Design Elective**	3	
		Elective*	3	15
Two	Fall	ID 500 Product Innovation Lab Studio	6	
		ID 581 ID Final Project Preparation	3	9
	Spring	ID 588 Final Project Studio	6	
	_	Industrial Design Elective	3	9
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*Electives should be courses listed at the 500 and above. A student may take up to 6 hours of 400-level courses for graduate credit provided that they are outside the student's major and the program is not at the doctoral level.

**Design electives need to be courses listed at the 500 and above.

Note: Student having the Materials & Process I (ID 511) requirement waived does not reduce the number of hours required to complete the degree (this is not credit by examination). Instead the student's curricular path and plan of graduate work will reflect an additional elective for focused study.

Total Degree Hours Required: 48

Year	Semester	Courses	Credits	Total Required Hours:
One	Fall	ID 500 Human Centered Design	6	
		Studio	3	
		ID 555 Research Methods in Design	3	
		ID 551 Fabrication and Prototyping		12
	Spring	ID 500 Design Research Studio	6	
		ID 511 Materials & Processes I	3	
		Design Elective**	3	
		Elective*	3	15
Two	Fall	ID 500 Product Innovation Lab	6	
		Studio	3	
		ID 512 Materials & Processes II	3	
		ID 581 ID Final Project Preparation		12
	Spring	ID 588 Final Project Studio	6	
		Design Elective**	3	9
				48

The required curricular path for a Track TWO student **not passing** the basic material knowledge placement exam should be as follows:

*Electives should be courses listed at the 500 and above. A student may take up to 6 hours of 400-level courses for graduate credit provided that they are outside the student's major and the program is not at the doctoral level.

**Design Electives should be courses listed at the 500 and above.

Total Degree Hours Required: 48

Track THREE

This track is a program for a candidate with an undergraduate degree in a non-industrial design area. If you are a Track THREE student there are two sets of requirements you must observe while pursuing your studies:

- 1. A graduate faculty review (see Review and Advancement section following) before moving into second year graduate level coursework.
- 2. Following Year One, a minimum of 48 hours of graduate level courses.

Specific course work will vary due to unique Special Topics and Elective offerings; however, the required curricular path for a Track THREE student should be as follows:

Year	Semester	Courses	Credits	Total Required Hours:
One	Fall	ID 521 Graduate Studio	6	
		ID 541 Product Digital Techniques	3	
		ID 531 Product Visualization	3	
		ID 551 Fabrication and Prototyping	3	15
	Spring	ID 522 Graduate Studio II	6	
		ID 542 Product Digital Techniques II	3	
		ID 532 Product Visualization II	3	
		ID 511 Materials & Processes I	3	15
Two	Fall	ID 500 Human Centered Design Studio	6	
		ID 512 Materials & Processes II	3	
		ID 555 Research Methods in Design	3	
		Elective**	3	15
	Spring	ID 500 Design Research Studio	6	
		Design Elective ***	3	
		Design Elective ***	3	
		Elective **	3	15
Three	Fall	ID 500 Product Innovation Lab Studio	6	
		ID 581 ID Final Project Preparation	3	9
	Spring	ID 588 Final Project Studio	6	
	_	Industrial Design Elective	3	9
				78

**Electives should be courses listed at the 500 and above. A student may take up to 6 hours of 400-level courses for graduate credit provided that they are outside the student's major and the program is not at the doctoral level.

*** Design electives may be selected from any course offered by the College of Design listed at the 500 and above.

Minimum Year One Hours Required: 30 Minimum Years Two and Three Graduate Hours Required: 48 **Total Degree Hours Required: 78**

Note that Year Two and Three of Track THREE parallel those courses outlined in Year One and Two of the Track TWO schedule.

Review and Advancement (Past Year One) of Track THREE Students

1. Students completing coursework with a B average or better may be advanced without review.

- 2. Students completing coursework with less than a B shall be reviewed to determine if advancement is advisable.
- 3. Evaluations of each student's studio performance shall be made each semester by the studio instructor. The Department Head, who may require a conference with those students experiencing difficulty, shall review these evaluations each semester.

Early Advancement and Waiver of Design Studios

- 1. It should be recognized that this is an exceptional procedure and requires clear and compelling justification. Substantial professional experience or education in design will normally be a prerequisite for such consideration.
- 2. Advancement requests should be prepared in writing by the student and presented to the Department Head at the end of their first or second studio.
- 3. The Department Head will review the student's file, studio evaluations, and consult with the student's Committee and instructors. If the request seems reasonably supported, a formal advancement review will be conducted.
- 4. The review shall consist of an interview and examination of studio work. The Graduate Faculty Committee will conduct the review. A majority vote of the group, with the Department Head concurring, shall decide for/against the student's request.

Student Performance

Graduate students are expected to maintain a 3.0 grade point average. The Graduate School has established the following policies regarding academic standing:

"Graduate students are given a notice of academic warning if they have accumulated less than nine hours at the 400-level or above and have less than a 3.0 ("B" average). Graduate students are <u>placed</u> <u>on academic probation</u> if they accumulate nine or more, but less than eighteen credit hours at the 400 level or above and have a grade point average of less than 3.0 ("B" average). <u>A student's graduate</u> <u>study will be terminated</u> if eighteen or more credit hours at the 400 level or above have been attempted with a grade point average of less than 3.0 ("B" average). In cases of program termination, no further registration in a graduate classification will be permitted. Under extenuating circumstances, the student will be reinstated upon the written recommendation of the Department Head and approval of the Graduate Dean. Departments have the prerogative of recommending the termination of a student's graduate admission at any time."

Termination of Student's Graduate Program

Termination of a student's Graduate Program is an extremely serious action and is taken only as a final step, when other measures are no longer appropriate. Students must realize that much of the responsibility for their program, its educational value and the procedures which shape it, are in their control. Each graduate student should make every effort to understand the rules established by The Graduate School and the policies of the Department, which pertain to Graduate Studies.

Failure to adhere to the following policies and deadlines may result in termination of a student's Graduate Program or in an enforced one-semester interruption of Graduate Studies:

- 1. Failure to enroll continuously without prior Department Head approval.
- 2. Failure to undertake a minimum of 9 credit hours each semester without prior Department Head approval. (Students who have fewer than 9 credit hours required in their final semester are exempt from this policy.)
- 3. Failure to enroll continuously in design studios.
- 4. Poor academic performance as indicated by 2 consecutive "Unsatisfactory" semester reports.

The Department Head will notify in writing any student whose program is to be terminated, two weeks in advance of final action, to allow time for an appeal and consideration of other possible resolutions of the situation.

GUIDELINES FOR FINAL PROJECT ADVISORY COMMITTEES

MID Final Project Advisory Committees

In the final year of study in the MID program, each student shall have a Final Project Advisory Committee of at least two Industrial Design Graduate Faculty members. These members consist of the Committee Chair and the Committee member(s). The Committee Chair must be an ID graduate faculty member with full status. Students are expected to ask faculty members if they will serve on their Committee upon entering their final year of studies. This process will be facilitated in ID 581, ID Final Project Preparation.

The Graduate Advisory Committee is expected to take an active role throughout the student's program:

- 1. To provide the intellectual climate for scholarly accomplishment, and
- 2. To detect difficulties in a student's performance, so that remedial action may be taken as soon as such difficulties become evident.

The student and Graduate Advisory Committees are expected to meet at appropriate intervals to:

- 1. Discuss degree audit
- 2. Review and approve the final project direction and content
- 3. Critically assess the student's progress in the degree audit and Final Project

The student or any member of his/her Committee may request such meetings. If adequate progress is not evident, the Final Project Advisory Committee has the obligation to clearly specify its reasons for concern and to stipulate the performance expected. Records of the evaluation of the student's progress and stipulations made by the Committee will be maintained in the student's file in the College of Design.

How to Select your Final Project Advisory Committee

The following is advice based on several years of experience with many different Graduate Advisory Committees. It is written from the faculty perspective, but does include some thoughts about the student perspective. It is intended to make the process of selecting your Committee easier and the experience of carrying-out your project more pleasant. Once you have an idea for your final project, you should write a description of the project, which includes its objectives, the methods you expect to use, the kinds of research you will conduct, and preliminary thoughts about the final outcome. Use this proposal to compose your Committee. Give a copy of the statement to each faculty member you think might make a good Committee member (professors you have enjoyed working with and/or whose interests are similar). Then make appointments with those faculty members and talk to them about your ideas. You will be interviewing them to discover their reactions to your proposal (and how it might be improved) and how you might work with them. They will use the discussion to discover how much the project interests them and how they can contribute to its success.

It may require several drafts of your proposal and many discussions with different faculty to arrive at a 'final' statement, which will allow you to start work with your Committee. Committees are made up of 2 or more faculty members. The Head must be from the ID Faculty; the second member should represent related or supporting areas (either within the ID faculty, Department, the College of Design or the University). If your project requires help from Faculty in institutions other than NCSU; it is

advisable to consult with them, but not have them on the Committee. This is mostly because of scheduling complications and logistical problems.

In considering how many and which faculty to have, consider that each must get along with you and each should get along with the others. You do not want to get into the middle of any ideological or personal conflicts. Limiting the number of members will reduce problems, and another reason to limit the number which is very practical, but which will take on increasing importance, is the problem of scheduling meetings. With all the best intentions in the world, faculty will agree to serve on committee(s), but you should be careful not to choose those who are on too many committees or who are known to have large time commitments outside the College of Design. Let us assume you have a final project and have established your Committee. Now it's time to get to work and start meeting with this Committee. This means the following:

- 1. Having meetings that are well organized, and at which something is accomplished.
- 2. Establishing a regular time and place for meetings.
- 3. Having meetings that start and end on time.

You (the student) should get into the habit of 'running' the meetings with your committee. You know what has been accomplished since the last meeting and you need to report progress and get feedback on the continuing work. Keep the meeting on track; get what you need out of it; do not let the discussion stray from your project and your goals. It is sometimes necessary and advisable to talk with individual faculty outside the committee meetings. These meetings should also be carefully arranged and appointments should be kept. The submission of written work to the faculty should be scheduled in advance of meetings so that they have time to read and comment on it. Inform the Committee if there are changes in your schedule.

It is possible to change your Committee members; during the course of the project you may initiate such a change. It can be done politely and fairly. You certainly should discuss it with the faculty member who is being removed; and you should go about finding a new member, as you found the others. Changes might make sense for the following reasons:

- 1. The faculty member discovers other commitments that do not allow enough time/energy for your project.
- 2. Personalities can clash, even when you are careful.
- 3. The project may change, and the faculty member may no longer be appropriate or interested.
- 4. Project objectives may change and faculty members may not agree with your changes.

The Final Reviews

Your <u>Final Project Committee Review</u> and <u>Public Review</u> are scheduled at the end of the last semester. The Final Project Committee Review is where your Graduate Committee reviews and evaluates all of your work and determines if it is complete and ready for public presentation. The Public Review is where you show the completed work to an assembled public audience of faculty and visiting practitioners. This is where you get the major part of the feedback.

Without overdoing it, remember that design can be seen in all things; how you run meetings; how you organize your presentations; how you pin up your project on the wall; how you format your written materials; and how you conduct your presentation.

Fulfilling Course Requirements

All graduate coursework taken, to be taken, and/or required to be taken, shall be shown in MyPack Portal. This includes studios, professional options, electives, etc. Graduate level courses are courses for which you get graduate credit; they have numbers in the 500 range. The listing of all courses shall be specific as to title, catalog number and term to be taken. You will only get graduate credit for courses for which you have received an A or B grade, or an S in the Special Topics courses. You will see listed on your University record (GARS) all the courses you take, but <u>only those with A. B. or S will count toward the total degree hours</u>.

It is possible to take graduate level courses during the summer. You can take an Independent Study (3 hours credit) if you have an appropriate project and find an instructor willing to supervise it. Depending on the instructor, it is possible to take a Summer Session I/II Studio or a graduate level Special Topics course. (for 1-6 hour's credit).

Studio selection other than the regular studio will require the prior approval of the Graduate Advisory Committee and Director of the Graduate program or Department Head.

The Special Topics and Research/Service Learning courses must be shown with keyword identification of content enclosed in parentheses. All Special Topics and Research/Service Learning courses will require approval of the Graduate Advisory Committee and Director of the Graduate program or Department Head.

A maximum of 6 credits of Independent Study may be counted toward the Master's degree. Independent Study courses must be shown with keyword identification of content enclosed in parentheses. Independent Study forms are obtained from the College Scheduling Officer.

It is mandatory to schedule ID 581 Final Project Research in the semester prior to undertaking the ID 588 Final Project Studio. This provides an opportunity to develop a project statement or position paper, then research, define and strategize the work.

Students in the final semester working on their final project should register for ID 588 Final Project Studio; a letter grade will be given. Final projects must be documented according to the College of Design guidelines prior to graduation.

A maximum of 9 credits of transfer credit from an accredited university or college may be applied to the Master's program (official transcripts required by The Graduate School). A maximum of 9 credits of Post-Baccalaureate Studies (PBS) may also be applied to the Master's program.

Graduate credit cannot be received for any correspondence courses.

Signatures

- Signature of the appropriate Graduate Administrator (Department Head or Director of Graduate Programs for Industrial Design) is required.
- Students must sign the Patent Policy Agreement form required by the University.

Important forms can be found on <u>The Graduate School's website</u>.

Frequently Chosen Electives (non-design)

Course	Course Title
Number	
AND 502	Digital Imaging
ANT 511	Anthropologic Theory
ANT 512	Applied Anthropology
ANT 516	Qualitative Research Methods
ARC 590D	SPTP – Contemporary Processes
BUS 590T	SPTP – Product Management

BUS 590C	SPTP – Creativity Management
CE 538	Info Technology & Social Change
COM 562	Communication & Social Change
COM 589R	SPTP – Communication & Race
COM 598	Visual Rhetoric
ECE 592	Special Topics in Electrical Engineering
ECI 516	Design and Evaluation of Instructional Materials
ECI 709	Creativity and Critical Thinking
EDP 560	Tests and Measurement
ISE 544	Occupational Biomechanics
ISE 589	Special Topics in Industrial Engineering - Intro to Medical Device Design
ISE 589	Additive Manufacturing
PHI 525/PSY	Introduction to Cognitive Science
525	
PSY 500	Visual Perception
PSY 508	Cognitive Processes
PSY 540	Human Factors in Systems Design
PSY 541	Overview of Human Factors in Psychology
MBA 536	Creativity in Management
MBA 561	Consumer Behavior
MBA 569	Consumer Innovation Practicum
MBA 590	Special Topics in Business Management - Consumer Behavior
TTM 515	Apparel Production
TED 530	Foundations for Teaching Technology
TED 558	Teaching Creative Problem Solving
WPS 576	Environmental Life Cycle Analysis
AND 475/575	Pre-industrial World Textiles
FLE 400	American English Pronunciation for International Students
FLE 401	Advanced Oral Communication in English for International Students
FLE 402	Advanced Written Communication in English for International Students

Frequently Chosen Design Electives

Course	Course Title
Number	
ID 582	Fabrication and Prototyping
ID 582	Special Topics: Human Centered Design
ID 582	Special Topics: History of Industrial Design
D 684	Teaching Design at the College Level
LAR 579	Human Use of the Urban Landscape

Note regarding MBA electives

To register for an MBA course, you will need to submit a Petition to Add. The process is explained here:

https://mba.ncsu.edu/students/current-students/registration/petition-to-add-mba-classes/

The Poole College of Management will not be allowing non-MBA students to petition to add MBA core courses, MBA 1-hour courses, and most MBA online courses (two exceptions there MBA 541 and 554).

Decisions on how many students to add will be based on available capacity in the class and communications with faculty regarding desirable numbers or ratios of non-MBAs. Decisions on which students to add will be based on the fit between the student's major and the class, time until

graduation, recommendations from the student's advisors and first-come-first-served. If a Poole College of Management faculty member is on your committee and they think an MBA class would be helpful to you, ask the faculty member to convey that to Steven Allen, Associate Dean for Graduate Programs and Research and make sure that you mention your relationship to the Poole College of Management faculty member in your petition.

The petition to add process is designed to make efficient use of faculty and staff time and to make sure that the petitioners are treated equally. In other words, complete the petition as opposed to approaching Associate Dean for Graduate Programs and Research office saying it is OK with a faculty member to add their class.

GUIDELINES FOR THE MASTER'S DEGREE FINAL PROJECT

Step One, Final Project Research: ID 581

The Industrial Design Master's Degree Final Project begins with the course Final Project Research (ID 581) that the student generally takes in the semester prior to their final semester.

The student and the committee establish the content and form of the Final Project Research Documentation. Generally the documentation will include a typewritten paper articulating the student's position relative to an industrial design concept. It will also generally include a description of the project that the student will use in the Final Project to test the theoretical position, including design requirements, a review of relevant precedents, and a bibliography.

The purpose of the Final Project Research Documentation is to provide the student and the committee with a historical and philosophical base for the independent design work to be done in the final semester. If the proposal is not of a historical nature, it may provide instead current social, cultural, and economic background information and a summary of ideas about the area of design being studied. The goal of the proposal is to enable the student to see the larger context of his/her design studies and degree project. The Head of the Graduate Committee is the supervising faculty for Final Project Research. The student is urged to keep all the members of the graduate committee informed and must provide all members with a copy of the Final Project Research Document by the end of the term prior to undertaking the Final Project Studio. One copy of the Final Project Research Document will be submitted to the Department of Graphic Design and Industrial Design Director of Graduate Programs for Industrial Design and will be available for all Industrial Design Faculty to review. All students who have received a passing grade in Final Project Research (ID 581) are eligible to register for Final Project Studio (ID 588). No student may register for Final Project Studio ID 588 without satisfactory completion of Final Project Research (ID 581) in a previous semester.

Step Two, Final Project Studio: ID 588

The completed Final Project is reviewed initially by the graduate committee, no later than the last day of classes. <u>The student's graduate committee may determine the format of this Final Committee</u> <u>Review</u>. The grade for the Final Project rests with the Graduate Committee Faculty Head, however all committee members must approve the student's final project for presentation at the Public Review. A Final Project Committee Review Sheet will be used that will require each of the committee members to sign as an indication that they approve the student's final project for presentation at the Public Review. When completed, this form will be provided to the Department Head, indicating that the student is prepared for public review. The student must earn a passing evaluation in the Final Project Committee Review, then must complete the Public Review, in order to earn a grade in ID 588. Also, the student's <u>Final Project Documentation must be submitted by the last day of classes in conformance with the College of Design Graduate Program's prescribed format for Final Project <u>Documentation must be accepted by both the student's Graduate Committee</u></u>

Head and the Department of Graphic Design and Industrial Design's Graduate Program Director for Industrial Design, prior to the Public Review.

(See Final Project Documentation Format in following section)

Grades will be withheld and the student will not graduate if the Final Project Documentation is not completed, turned in by the last day of classes, and accepted by both the student's Graduate Committee Head and by the Department of Graphic design and Industrial Design Graduate Program Director for Industrial Design.

The Public Review

The Public Review is open to all faculty and students, and invited jurors from outside the College of Design will be present to discuss the work. Each student is expected to introduce their project to the jurors through a concise discourse not to exceed 10 minutes. The student's presentation is to be followed by an open discussion with the jury. The total time per student will be 40 minutes. Out of respect for this important component of graduate education, each student's graduate committee is expected to be present to discuss the work, as are all of the ID faculty. ID faculty not on the student's committee are encouraged to promptly offer evaluative comments regarding the student's Final Project directly to the Committee Head. The Department Head will determine the date of this Public Review, but generally it will be within one week of the last day of classes. Public Reviews will take place only at the end of the Fall Semester and the end of the Spring Semester. <u>Students who do not present their Final Project in the Public Review will not graduate and will be required to present their work at the next Public Review</u>.

Final Project Documentation Format for Master's Students

The Final Project is the culmination of the Master of Industrial Design curriculum. The nine credit-hours which are the course work for the Final Project are to be satisfied by sequential completion of ID 581 Final Project Research and ID 588 Final Project Studio. <u>All graduate students must provide final written documentation of their Final Project, following the format shown below, by the last day of classes in the semester they take ID 588, before they will be allowed to graduate. The written documentation, which is to include the work from the Final Project Research and the Final Project, will consist of at least the following:</u>

- Title page including: student's name, academic unit's name, college, university, date of submission, degree name, committee names with Head indicated.
- Abstract, approximately 100 words, describing the project.
- Table of contents.
- List of illustrations.
- Report text, explaining the project: genesis of the idea, brief review of literature, assumptions, justification, goals, methodology, results, conclusions. References must be footnoted where appropriate. Analytic drawings or illustrations should be included where appropriate.

Bibliography, using standard form.

Visual documentation of studio work. Good quality reproductions of drawings and photographs of models to meet the format size must be included for binding into the document. Original photo prints or color photocopies may be used, though digital image printing is the norm. No slides or fold out pages. CD/DVDs can be included to fit in a pocket of the bound document.

All written materials must be word-processed. Use one side of the page only; number all text pages. A standard size (8.5×11 inches) page is required. All pages must be the same size. Binding can be either on the long or short edge. Allow a one-inch margin on the binding side.

All materials must be submitted digitally to our shared course drive.

Residency

Residency status for the purpose of determining tuition charges at a public institution of higher education in the state of North Carolina is governed by the North Carolina General Statutes. Specifically, state law applicable to tuition and fees at state-supported institutions is contained in Article 14, section 116-143 et seq., of the General Statutes of North Carolina.

Students will be classified by the appropriate Admissions Office as either eligible for in-state tuition or ineligible. Each student has the responsibility of providing information to the Admissions Office to support classification of the student for residency purposes. Additional information is available on the Residency Information website, https://grad.ncsu.edu/admissions/residency/

FINANCIAL AID OPPORTUNITIES

Loans

Graduate students may qualify for various loan programs administered by the NCSU Financial Aid Office. Neither the College of Design nor the Graphic Design and Industrial Design Department provides loans to students.

Temporary Labor

The College of Design has a small budget for temporary labor, which may occasionally be used to employ students to undertake various tasks — miscellaneous design jobs, writing and editing, supervising labs, clerical and administrative work, etc. Hourly rates are negotiated and payment is on a bi- weekly basis. While this source of support is very limited, graduate students wishing to be considered for such assignments should notify the Department Head in writing and indicate special skills, such as those noted above. You will be contacted when the need arises. The University also supports students through the Work Study Program.

GUIDELINES FOR GRADUATE TEACHING ASSISTANTS AND GRADUATE RESEARCH ASSISTANTS

Recruitment and Selection

Graduate Teaching Assistants and Research Assistants are recruited from the entire group of Graduate students, continuing or new, enrolled in Graduate programs in the School.

The various Department Heads in the College are responsible for recruiting and appointing GTAs/GRAs for their departments. Department Heads may assign other departmental Faculty members to assume this responsibility on their behalf or to assist in the overall process.

An announcement of the availability of all Teaching/Research Assistantships shall be disseminated in the College of Design for a minimum of one week before an appointment may be made. All eligible students shall be permitted to apply for available Assistantships by submitting a student application form, available from the College Scheduling Officer, to the Department Head.

To be eligible for appointment as a GTA or GRA, students must be in good academic standing, as defined by The Graduate School, and must be registered during each semester in which the appointment is in effect. In addition, selection criteria include the academic and professional experience relative to the particular teaching responsibility, previous teaching experience (if any), effective communication skills, performance in coursework, resourcefulness and maturity. Financial need may also be considered as criteria for a GTA or GRA.

Orientation, Training and Supervision

The Department Head will designate a Faculty Supervisor, who is responsible for the orientation and training for each Assistant. Typically, the Faculty Supervisor is experienced in the course to which a Teaching Assistant is assigned and may in fact be its principal instructor. The Faculty Supervisor will provide the Teaching Assistant with appropriate teaching materials and written instructions as to the content and operation of the course. The Faculty Supervisor will meet with the Teaching Assistant regularly to provide assistance and training and will observe the Teaching Assistant in his/her teaching performances as required (but no less than three times each semester) to determine if the Teaching Assistant is performing satisfactorily. Appropriate feedback in oral or written form should be communicated to the Teaching Assistant after each observation. Generally, the same issues apply to a Research Assistant.

All Graduate Teaching Assistants are required to attend the Teaching Effectiveness Workshop conducted each fall by the University Teaching Effectiveness and Evaluation Committee, (unless excused in writing by the Department Head). All Graduate Teaching Assistants are given a copy of the NCSU Teaching Handbook, which they are instructed to read and refer to, as needed.

Evaluation and Reappointment

The Faculty Supervisor is responsible for evaluating the performance of assigned Teaching Assistants. The evaluation shall be in written form utilizing a standard college format, and shall be submitted to the Department Head at the end of the semester. One copy shall go to the Teaching Assistant and another copy shall be placed in the Teaching Assistant's file.

Teaching Assistants will be considered for reappointment if they satisfy the prescribed eligibility standards and if their performance evaluation is satisfactory. There is no commitment on the part of the department, however, to reappoint a Teaching Assistant beyond the terms of the initial appointment, even if the performance is satisfactory. Availability of funding, withdrawal of a course from the teaching schedule, availability of better-qualified applicants, or other considerations may prevent the reappointment.

Teaching Assistants are required to prepare and present to the Faculty Supervisor a brief written assessment on accomplishments, problems encountered, and suggestions for improving the course at the end of each semester.

A MID student is eligible for a maximum four semesters of GSSP. A full TA (to be eligible for GSSP) requires on average 12 hours of work a week to support the faculty in instructions and course preparation and the department in administration.

Termination of Assistantship

Termination of Teaching Assistantship is a serious step and will be taken only when other measures have been exhausted. A Teaching Assistantship can be terminated before the appointment period has been completed, only when the Teaching Assistant's performance is evaluated to be seriously deficient or negligent by the Faculty Supervisor, and confirmed by the Department Head. Grounds for such evaluation would include lack of preparation for class, unexcused absences, incompletion of Faculty Supervisor assigned tasks, inappropriate behavior in class, or other such serious violations of academic behavior. Notice of an impending termination will be given in writing to the Teaching Assistant by the Department Head one week in advance of its effective date. The affected Teaching Assistant may appeal the decision through proper procedures and channels.

Rights and Responsibilities

The Graduate Teaching Assistant retains all the rights and privileges available to all graduate students at NCSU.

General responsibilities shall be defined in the letter of appointment sent to the Teaching Assistant by the Department Head. Acceptance of the Teaching Assistantship is evidence of agreement to the terms outlined in the letter. When appropriate, the general responsibilities may be augmented by a detailed written outline of responsibilities, prepared by the Faculty Supervisor in consultation with the Teaching Assistant, and signed by the Teaching Assistant, Faculty Supervisor and the Department Head.

Scholarship/Fellowship Income Reportable for IRS Tax Purposes

All scholarship and fellowship payments are reportable on the recipient's income tax returns. This includes the amount of any tuition remission a student may have received, which is treated as a fellowship for tax purposes.

All assistantship payments are considered wages and will be paid and reported by the University payroll system. They will be subject to tax withholding.

The University Payroll Office can answer questions concerning current tax issues. Also refer to the Internal Revenue Service and/or NC Department of Revenue.

Additional Programs and Opportunities

There are abundant opportunities for enrichment while an NCSU graduate student. Knowing where to look for the opportunities and motivating yourself to engage in them are challenges. The Graduate School's website addresses the first challenge (see programs listed below to highlight such opportunities). Addressing the second challenge is left to you.

Professional Development Workshops (PFL & TDSS)

Preparing Future Leaders Program (<u>http://pfl.grad.ncsu.edu</u>) CoAT: Certificate of Accomplishment in Teaching MATP: Mentoring and Teaching Practicum FIT: Fundamentals in Teaching Graduate Student Summer Teaching Institute Personal and Professional Development Seminars (PDS)

(http://www.ncsu.edu/grad/preparing-future-leaders/career-skills/seminars.html) Preparing the Professoriate Program (http://pfl.grad.ncsu.edu/ptp-application-instructions/)

Thesis and Dissertation Support Services (TDSS)

Thesis and Dissertation Support Services offered by the Graduate School at N.C. State University are designed to enhance the success of students writing theses and dissertations. They offer a variety of writing workshops, seminars, and other programming to help students through the process of writing their theses and dissertations. They also serve as a central resource for students to help them find related graduate student success programming on campus. <u>go.ncsu.edu/tdss</u>

Graduate Writing Center

The GWC is open to all NC State graduate students. Students can bring any non-exam related writing at any point in the writing process to the GWC to get a fresh perspective: course work, big projects, grant proposals, cover letters, anything. <u>http://tutorial.ncsu.edu/gwc</u>

ESL support

- FLE is "Foreign Language English," and these are English as a Second Language courses.
- If you'd like to work on your writing, FLE 402: Graduate Writing would be best. (Nancy Swisher is noted as a gentle, kind and effective instructor). Suggest you take this in the Fall of your last year.
- If you'd like to work on American English pronunciation, FLE 400 is the best course.
- There is also a conversation and communication course, FLE 201.

For information about support of Conversation and Pronunciation for international graduate students, visiting scholars, and spouses, contact Robin Kube at rmkube@ncsu.edu if you have questions.

English Program (IEP)

The IEP is happy to assist colleges and departments by offering English instruction to incoming international students so that they are better able to handle the linguistic and cultural challenges they will face in their academic programs and in life at NC State. IEP offers classes in the Fall and Spring for 15 weeks each and a special Summer 9-week session. Summer might be the perfect time for students needing an extra boost to their English (<u>http://iep.oia.ncsu.edu/</u>). IEP may be able to benefit prospective international graduate students in the College of Design who enroll in our full-time program by:

- Providing intensive non-credit academic English instruction in all skill areas
- Assisting in acculturation to life in the United States and at NC State
- Offering individual academic coaching (tutoring) sessions free of charge