# Master of Industrial Design
# +
# Master of Science in Human Computer Interaction

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Human Computer Interaction (HCI) and Industrial Design have teamed up to provide a path for students interested in pursuing double degrees in both programs.

Working with Tiffany Kayser in HCI and Carlos Cardoso in Industrial Design, students can craft an educational experience like what is outlined in the pages that follow. In the end, students will have earned a MDes in Industrial Design and an MS in HCI.

It is important to note that interested students should contact either Tiffany (HCI) and/or Carlos (Industrial Design) to begin the process that students need to go through to register for the double degrees as outlined below.

Tiffany Kayser – HCI: tlkayser@iastate.edu
Carlos Cardoso – Industrial Design: ccardoso@iastate.edu

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## Double Degree Program Information

Minimum total credits: **69**

**33** credits for Master of Industrial Design (MID)

**12** shared credits used toward both degrees

**24** credits for Human Computer Interaction (MS in HCI)

### 1. MID Degree Requirements — 33cr required on POS

| | | | |
|---|---|---|---|
| IND D 501 | Fall | Industrial Design Graduate Studio I | 6cr* |
| IND D 520 | Fall | Design Theory and Methodology | 3cr |
| IND D 570 | Fall | Systems Thinking in Design | 3cr |
| IND D 502 | Spring | Industrial Design Graduate Studio II | 6cr |
| IND D 560 | Spring | Change by Design: disruptive innovation | 3cr |
| IND D 640 | Spring | Digital Technologies | 3rc |
| IND D 540 | Fall | Design Communication | 3cr |
| IND D 601 | Fall | Industrial Design Studio III | 6cr |

* required sequence

### 2. Shared credits used towards both degrees — 12cr required on POS

| | | | |
|---|---|---|---|
| IND D 530 | Fall | Design Thinking | 3cr [Required] |
| IE 577 | Fall | Human Factors | 3cr [Required] |
| *Option 1:* | | | |
| IND D 699/ HCI 699 | Fall/Spring | Thesis | 6cr [Required] |
| *Option 2:* | | | |
| INDD 602 and | | | 6cr [Required] |
| HCI 599 | Fall/Spring | Creative Component | 3cr [Required] |

### 3. MS in HCI Degree Requirements — 24cr required on POS

**Choose any four courses, one from each of the categories below — 12cr**

***Design Category*** - 3cr

| | | |
|---|---|---|
| HCI 521 | Fall | Cognitive Psychology of HCI |
| HCI 595 | Summer | Visual Design for HCI |
| ArtGR 530 | Fall | User Engagement |
| I E 572 | Spring | Design and Evaluation of Human Computer Interaction |

>> Implementation Category - 3 cr

| | | |
|---|---|---|
| HCI 575 | Spring | Computational Perception |
| HCI 580 | Spring | Virtual Worlds and Applications |
| ME 557 | Fall | Computer Graphics and Geometric Modeling |

| | | |
|---|---|---|
| HCI 584X | Summer | Python Application Development in HCI |

***Phenomena Category*** - 3 cr

| | | |
|---|---|---|
| HCI 655 | Fall | Organizational and Social Implications of HCI |
| JL MC 474 | Summer | Communication Technology and Social Change |
| WLC 584 | Fall | Technology, Globalization and Culture |
| HCI 530X | Varies | Perspectives in HCI |
| ArtGr 540 | Spring | Graphic Design for Behavioral Change |
| ArtGr 589 | Fall/Spring | Design and Ethics |

***Evaluation Category*** - 3 cr

| | | |
|---|---|---|
| STAT 332 | Varies | Visual Communication of Quantitative Information |
| HCI 504 | Fall | Evaluating Digital Learning Environments |
| PSYCH 501 | Spring | Foundations of Behavioral Research |
| STAT 586 | Spring | Introduction to Statistical Computing |
| HCI 522 | Spring | Scientific Methods in HCI |
| HCI 523X | Varies | Qualitative Research Methods in HCI |

**Four other 3cr courses can be any from the ISU Course Catalog. 12cr**
However, recommended electives are listed below.

| | | |
|---|---|---|
| ArtIS 508 | Spring | Computer Aided Visualization |
| EDUC 511 | Summer | Technology Diffusion, Leadership, and Change |
| HCI 510 | Spring | Foundations of Game-Based Learning |
| HCI 525 | Fall | Optimization Methods for Complex Designs |
| HCI 574 | Spring, even yrs | Computational Implementation and Prototyping |
| HCI 587 | Summer | Models and Theories in Human Computer Interaction |
| HCI 596 | Fall | Emerging Practices in Human Computer Interaction |
| HCI 603 | Spring | Advanced Learning Environments Design |
| HCI 681 | Fall | Cognitive Engineering |
| IE 577 | Fall | Human Factors |
| STAT 587 | Fall & Spring | Statistical Methods for Research Workers |
| IE 576 | Fall | Human Factors in Product Design |

**Final Project for Double Degree in MID and HCI**

For the double degrees, the final project, a thesis or creative component, must integrate subject areas from both fields and the POS committee must contain faculty from both programs. The major professor can either represent both majors or two co-major professors can represent each major.

**For more information on the MID/MS in HCI double degree program, please contact:**

Tiffany Kayser
HCI Graduate Program Coordinator
tlkayser@iastate.edu

Carlos Cardoso
MID Director of Graduate Education
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