THE UNIVERSITY OF NORTH CAROLINA ASHEVILLE
FACULTY SENATE

Senate Document Number   SD2523S
Date of Senate Approval   03/30/2023
- -
Statement of Faculty Senate Action:

APC Document 15 (NM):   **Change titles, descriptions, and/or prerequisites for NM 101, 142, 146, 231, 281, 310, 320, 350, 360, 410, 420, 438, and 490**

Effective Date: Fall 2023

1.   **Delete:** On page 264, the description for **NM 101, Digital Design Principles:**

     101   **Digital Design Principles (4)**
          An introduction to new-media image production techniques and essential computer hardware and software literacy. Making connections between modernist art-historical movements, principles of design, and contemporary visual culture, students will learn an array of essential media production skills that emphasize critical, conceptual, and aesthetic development. Fall and Spring.

     Add: On page 264, in place of deleted entry:

     101   **Digital Design Principles (4)**
          An introduction to new-media image production techniques. Making connections between modernist art-historical movements, principles of design, and contemporary visual culture, students will learn an array of essential media production skills that emphasize critical, conceptual, and aesthetic development. Fall and Spring.

Impact:
1. This course fulfills a major requirement.
2. Information about the course:
   a. Learning Objectives:
     ● To begin to understand play as an experiential methodology of discovery while exploring new relationships between research and creative image production.
     ● To learn how to critique and analyze visual media, including how to deconstruct existing images and artworks to begin to understand how meaning is constructed while also learning essential visual design skills.
     ● To synthesize expression, logic, and data in visual forms that easily communicate to others in the digital sphere.
     ● To move beyond the social media context of casual image-editing and digital asset creation to voice one's own concepts and ideas using industry-standard software while learning to think critically about the technology used to make and share media.
   b. Anticipated class size: 20 students
   c. Amount of scheduled class time: 3.5 hours per week
   d. Instructional format: New media project-based studio class
   e. No new materials will be needed for the course.
   f. Contact hours: 4
3. Any full-time faculty member in the department can teach this course.
4. 4 sections of this course are offered each academic year in the fall and spring.
5. There will be no impact on the resources and staffing of the NM department due to this change. No new lab equipment or space will be needed.
6. CNS: ART 171 from the NC Community Colleges equates to NM 101.

Rationale: This removes the end of the first sentence in the description, "and essential computer hardware and software literacy." Hardware and software literacy are implied later in the description, which says "essential media production skills." Stating hardware and software literacy in the first sentence is therefore redundant and we would like to remove it.

2.   **Delete:** On page 264, the entry for **NM 142, New Media History and Theory:**

142   **New Media History and Theory (4)**
         "New Media" may be understood as media that is dependent upon computers. This course traces the history of new media and its theoretical underpinnings, from the origins of computing in the first half of the 20th century to contemporary new media art and design. Students will read critical texts by artists, scientists, theorists, and philosophers, and will interpret these texts in various social, political, aesthetic, and ethical contexts through writing, class discussion, and artmaking. Spring.

Add: On page 264, in place of deleted entry:

142   **New Media History and Theory (4)**
         Traces the history of new media and its theoretical underpinnings from the origins of computing in the first half of the 20th century to contemporary new media art and design. Students will read critical texts by artists, scientists, theorists, and philosophers, and will interpret these texts in various social, political, aesthetic, and ethical contexts through writing, class discussion, and artmaking. Every year.

Impact:
1. This course fulfills a major requirement.
2. Information about the course:
   a. Learning Objectives:
      ● Understand how media, technology, and culture affect each other.
      ● Gain insight into the historical evolution of new media forms.
      ● Develop a foundation for the pursuit of new media research.
      ● Develop a more rigorous and purposeful practice of "reading" new media.
      ● Develop a theoretical vocabulary with which to describe and analyze new and emergent media.
      ● Improve your ability to dialogue in class about topics related to the assigned readings.
      ● Distinguish between various tones and genres of writing within new media theory (technical, philosophical, art critical, cultural).
      ● Understand the purpose and the process of revision in writing.
      ● Articulate a coherent thesis in your writing and support it with appropriate evidence and argumentation.
   b. Anticipated class size: 20 students
   c. Amount of scheduled class time: 3.5 hours per week
   d. Instructional format: New media project-based studio class
   e. No new materials will be needed.
   f. Contact hours: 4
3. Four full-time faculty in the department can teach this course.
4. 1 section of this course is offered each academic year.
5. There will be no impact on the resources and staffing of the NM department due to this change.
6. No new lab equipment or space will be needed.
7. CNS: n/a

Rationale: This change simply removes the first sentence in this course description, which contained a definition of the term "new media" that was unnecessary to include.

Students are required to take at least one course from NM 142, 146, or 344. Each of these courses teaches writing within the major, and the department is committed to offering at least one of them in the Fall and one in the Spring. Changing when the course will be offered from Spring to Every year is more in line with how the course has been offered for the last several years.

3. **Delete:** On page 265, the entry for **NM 146, Video Game Studies:**

> **146** **Video Game Studies (4)**
> Critical investigation of 40+ years of video game histories, technologies, global cultures, philosophies, and aesthetics relevant to the medium. Using critical texts, auto-ethnographic game play, and informative documentaries, we will critically discuss the influence and the experiential power of video games, which will culminate in a substantial research paper and in-depth independent game design proposal. Introduction to open-source game creation software will also be covered in class. Odd years Fall.

Add: On page 265, in place of deleted entry:

> **146** **Video Game Studies (4)**
> A critical investigation of 40+ years of video game histories, technologies, global cultures, philosophies, and aesthetics relevant to the medium. Using texts, auto-ethnographic gameplay, and informative documentaries, we will discuss the influence and the experiential power of video games, which will culminate in a substantial research paper and in-depth independent game design proposal. Every year.

Impact:
1. This course fulfills a major requirement.
2. Information about the course:
   a. Learning Objectives:
      ● To move from a definition of PLAY as diversion or entertainment into a new understanding of play as a methodology of learning and expression.
      ● To arrive at a historical sense of how video games evolved through the advent of military technology while developing a criticality towards how commercial video games and narratives are structured and how they function as embodiments of ideals and values.
      ● To examine how video games can move beyond commercial formats into forms of art and expression by expanding the capabilities of the medium as new media architects of experience.
      ● To understand video games (art games/indie games) as vehicles of personal experience and representation that fit into larger cultural contexts and to put these ideas into action by creating a unique game on paper by writing an in-depth game design proposal as a creative research project.
   b. Anticipated class size: 20 students
   c. Amount of scheduled class time: 3.5 hours per week
   d. Instructional format: New media project-based studio class
   e. No new lab equipment or space will be needed
   f. Contact hours: 4
3. Four full-time faculty in the department can teach this course.
4. One section of this course is offered each academic year.
5. There will be no impact on the resources and staffing of the NM department due to this change.
6. CNS: n/a

Rationale: This minor description change adds an article, "A," to the beginning of the first sentence, removes a redundant adjective in the phrase "~~critically~~ discuss" and removes the final sentence, which promised the inclusion of a type of software that has evolved out of the delivery of the course.

Students are required to take at least one course from NM 142, 146, or 344. Each of these courses teaches writing within the major, and the department is committed to offering at least one of them in the Fall and one in the Spring. Changing when the course will be offered from Odd years Fall to Every year is more in line with how the course has been offered for the last several years.

4.   **Delete:** On page 265, the title for **NM 231, Introductory Interactive Media:**

   231   Introductory Interactive Media (4)
               A crash-course introduction to internet cultures, internet-specific production techniques, and code as an artistic medium. Students survey contemporary internet media cultures and technologies while learning essential web-based coding skills in HTML, CSS and other programming languages applied within the context of art and design. Media production techniques will include transcoding, digital representations of sound and images, and user-interface multimedia experience. Prerequisite: NM 101. Fall and Spring.

   Add: On page 265, in place of deleted entry:

   231   Introduction to Interactive Media (4)
               A crash-course introduction to internet cultures, internet-specific production techniques, and code as an artistic medium. Students survey contemporary internet media cultures and technologies while learning essential web-based coding skills in HTML, CSS and other programming languages applied within the context of art and design. Media production techniques will include transcoding, digital representations of sound and images, and user-interface multimedia experience. Prerequisite: NM 101. Fall and Spring.

Impact:
1. This course fulfills a major requirement.
2. Information about the course
   a. Learning Objectives:
      - Develop an understanding of the art, design, historical and social contexts and implications for creating interactive media.
      - Demonstrate an understanding of the techniques used to create interactive content for the web.
      - Design, plan, and implement interactive projects using professional techniques including hand-coding HTML and CSS and image creation.
      - Create projects that employ problem solving, resourcefulness, technical sophistication, and a high degree of creativity and expression.
      - Present and discuss works of your own and those of your peers while developing a language for critique of web-based projects.
   b. Anticipated class size: 2 sections of 16-20 students per semester
   c. Amount of scheduled class time: 3.5 hours per week
   d. Instructional format: New media project-based studio class
   e. No new lab equipment or space will be needed
   f. Contact hours: 4
3. Three full-time faculty in the department can teach this course.
4. 2 sections of this course are offered every semester.
5. There will be no impact on the resources and staffing of the NM department due to this change.
6. CNS: n/a

Rationale: This course was intended to be changed in this way in our 2017 APC description, however, there was an error when the name change was made. Instead of being changed to "Introduction to Interactive Media" it was changed in error to "Introductory Interactive Media." "Introduction to Interactive Media" matches our other 200-level track introduction courses, which are called "Introduction to Motion Media" and "Introduction to Video Art and Design."

5.   **Delete:** On page 265, the entry for **NM 281, Introduction to Video Art and Design:**

>   **281   Introduction to Video Art and Design (4)**
>   Two- and three-dimensional time-based sequence design, stop motion animation, sound techniques, type in motion and basic video production techniques. Students will study design principle and process, and critical thinking skills. Prerequisite: NM 101. Fall and Spring.

Add: On page 265, in place of deleted entry:

>   **281   Introduction to Video Art and Design (4)**
>   Time-based sequence design, stop motion animation, motion graphics, and basic video editing and production techniques. Students will study design principles, post-production process, and practice critical thinking skills. Prerequisite: NM 101. Fall and Spring.

Impact:
1. This course fulfills a major requirement.
2. Information about the course:
    a. Learning Objectives:
        ● To understand and become familiar with the process of digital filmmaking and motion graphics design.
        ● To develop basic proficiency with the tools and techniques available in digital filmmaking and motion graphics animation programs.
        ● To communicate concepts relevant to contemporary culture in one's creative work using video and motion graphics.
        ● To learn art and design vocabulary and to apply them toward constructive critiques of one's work and the work of classmates.
    b. Anticipated class size: 20 students
    c. Amount of scheduled class time: 3.5 hours per week
    d. Instructional format: New media project-based studio class
    e. No new lab equipment or space will be needed\
    f. Contact hours: 4
3. Four full-time faculty in the department can teach this course.
4. Two sections of this course are offered each academic year in the fall and spring.
5. There will be no impact on the resources and staffing of the NM department due to this change.
6. CNS: n/a

Rationale: This minor description change updates the terms used to more contemporary language, particularly replacing the phrase "type in motion" with "motion graphics." The phrase "Two- and three-dimensional" is removed from the beginning of the description because it is no longer necessary to say this; changes in technology imply that both two- and three-dimensional techniques will be used in a video production and editing course.

6. **Delete:** On page 265, the entry for **NM 310, Intermediate Computer Animation:**

> **310** **Intermediate Computer Animation (4)**
> Intermediate technical, artistic and critical skills required to create convincing 3-D computer-generated character animation. Students will study the twelve principles of animation, complete exercises and perform improvisations designed to sharpen their skills as character animators. They will also learn the basics of animating to dialogue with emphasis placed on creating entertaining and convincing performances. Students will spend time in class presenting, defending, and improving their work based on formative faculty and peer feedback. Prerequisites: ART 144 or CSCI 182 or 183; NM 251. Fall.

Add: On page 265, in place of deleted entry:

> **310** **Intermediate Animation (4)**
> Intermediate technical, artistic and critical skills are required to create convincing character animation. Students will study the twelve principles of animation, complete exercises and perform improvisations designed to sharpen their skills as character animators. While digital (3D) animation is encouraged, following the first digital assignment, students may choose traditional (2D), digital (3D), experimental and stop-motion techniques to create their work. Students will spend time in class presenting, defending, and improving their work based on formative faculty and peer feedback. Prerequisites: CSCI 182, 183 or 185; NM 251, and either NM 231 or 281. Fall.

Impact:
1. This course fulfills a major requirement.
2. Information about the course:
   a. Learning Objectives:
      - To build upon the artistic and technical skills acquired in NM 251, Introduction to Motion Media.
      - To learn more advanced concepts and skills to help students create works of ingenuity and quality.
      - To develop a full understanding in concept and in practice of the "12 Principles of Animation."
      - To develop the skills of conveying a story through storyboarding.
      - To develop the skills of observation and performance using improvisation.
      - To use those skills of observation as they imbue an animated character with personality.
   b. Anticipated class size: 20 students
   c. Amount of scheduled class time: 3.5 hours per week
   d. Instructional format: New media project-based studio class
   e. No new lab equipment or space will be needed.
   f. Contact hours: 4
3. Three full-time faculty in the department can teach this course.
4. One section of this course is offered each academic year in the fall.
5. There will be no impact on the resources and staffing of the NM department due to this change.
6. CNS: n/a

Rationale: The phrase "Computer Animation" is now dated. Using the term "Animation" alone is inclusive of techniques that use computers, including 3D animation using software such as Maya and 2D animation using software such as Adobe Animate as well as traditional techniques such as stop motion or hand drawn animation. Because our courses can cover any of these techniques, the phrase "Computer Animation" in the name of this course is incorrect and sounds dated. The content of this course has been evolving over time and now focuses on a broader array of techniques, and less

specifically on 3D animation. This description change allows the class to cover not only 3D animation but also traditional forms of animation and 2D approaches. A sentence about animating dialog has been moved from the original description of this 300-level animation track course to the 400-level animation track course, as this more accurately reflects what is now being done in the classroom

This course was missing CSCI 185 as a prerequisite, which is one of the available CSCI courses that students can take to fulfill their New Media major. Also, ART 144 was listed as a pre-req as a holdover from earlier times when this was required. It has not been required for a long time (pre-dating my time in new media, VB) and this has caused confusion for the students and caused many pre-req waivers to have to be issued for this course.

Finally, the new media curriculum is designed for students to take their three required 200-level courses in each of the tracks, Animation, Video and Interactive, in order for them to practice each and decide on a track to pursue. Often, however, students have been taking just their 200-level course of choice and moving right on to their upper-level track courses without sampling the other two 200-level courses. Then they take those last two 200-level courses towards the end of their tenure in the department. This is a problem because they don't know the technical and theoretical content of those 200-level courses as they move into the 300 and 400 level classes and even, at times, their Senior Capstone. Adding a pre-req requirement for this 300-level animation course for students to take NM 251, Introduction to Motion Media and one of their other 200-level introductory courses will require them to be more well-rounded going into this course but also avoid a bottleneck at the 300 and 400-level.

7.   **Delete:** On page 266, the entry for **NM 320, Intermediate Interactive Media**

320   **Intermediate Interactive Media (4)**
Basic principles of semiotics and sign design, navigation and interface development. Application of technology to construct innovative, interactive products. Students will spend time in class presenting, defending, and improving their work based on formative faculty and peer feedback. Prerequisites: CSCI 182, 183 or 185; NM 231. Fall.

Add: On page 266, in place of deleted entry:

320   **Networked Interactive Media (4)**
Students will create projects that explore networked art and design and interface development. They will study the history, theory, and application of technologies used to construct innovative interactive products. Students will spend time in class presenting, defending, and improving their work based on formative faculty and peer feedback. Prerequisites: CSCI 182, 183 or 185; NM 231, and either NM 251 or 281. Spring.

Impact:
1. This course fulfills a major requirement.
2. Information about the course:
   a. Learning Objectives:
      ● To create a series of advanced projects that apply interactive design skills and innovative concepts while demonstrating an increased understanding of the technologies used to create interactive content for the web.
      ● To discover more about art and design contexts and histories of interactive media.
      ● To continue to develop skills in interactive design, including planning and implementation of web and mobile projects, typography, color theory, wireframing, site mapping, and hand-coding.

- To improve upon the professional presentation of projects and clear articulation of interactive experiences while gaining confidence as a designer/artist and learning how to discuss works at a high level.
    b. Anticipated class size: 20 students
    c. Amount of scheduled class time: 3.5 hours per week
    d. Instructional format: New media project-based studio class
    e. No new lab equipment or space will be needed.
    f. Contact hours: 4
3. Two full-time faculty in the department can teach this course.
4. One section of this course is offered each academic year in the spring.
5. There will be no impact on the resources and staffing of the NM department due to this change.
6. CNS: n/a

Rationale: The 300 and 400-level interactive track courses cover two types of interactive media: physical computing and web or networked art and design. This change to the title of the 300-level course indicates that net art, web or networked media techniques and concepts will be covered in this course, while the 400-level interactive track course will cover physical computing. This will also clarify for students how this course differs from the 400-level class while allowing the professor teaching it to cover a range of topics that fall under networked media that build upon NM 231, Introduction to Interactive Media.

The new media curriculum is designed for students to take the three required 200-level courses in each of the tracks, Animation, Video, and Interactive, in order for them to practice each and decide on a track to pursue. Often, however, students have been taking just their 200-level course of choice and moving right on to their upper-level track courses without sampling the other two 200-level courses. Then they take those last two 200-level courses towards the end of their tenure in the department. This is a problem because they don't know the technical and theoretical content of those 200-level courses as they move into the 300 and 400 level classes and even, at times, their Senior Capstone. Adding a pre-req requirement for this 300-level interactive course for students to take NM 231, Introduction to Interactive Media and one of their other 200-level introductory courses will require them to be more well-rounded going into this course but also avoid a bottleneck at the 300 and 400-level. Changing NM 320, Networked Interactive Media to Spring puts the catalog more in line with the way this course has been offered for the last several years. It alternates semesters with NM 420.

8. Delete: On page 266, the prerequisite for **NM 350, Intermediate Video**

  350 **Intermediate Video (4)**
    Through the exploration of video techniques and motion media design principles, students will concentrate on motion graphics production, and will create innovative work for cinema, television and digital interfaces. Students will spend time in class presenting, defending, and improving their work based on formative faculty and peer feedback. Prerequisite: CSCI 182 or 183; NM 281. Spring.

 Add: On page 266, in place of deleted entry:

  350 **Intermediate Video (4)**
    Through the exploration of video techniques and motion media design principles, students will concentrate on motion graphics production, and will create innovative work for cinema, television and digital interfaces. Students will spend time in class presenting, defending, and improving their work based on formative faculty and peer feedback. Prerequisite: CSCI 182, 183 or 185; NM 281 and either NM 231 or 251. Spring.

Impact:
1. This course fulfills a major requirement.
2. Information about the course:
   a. Learning Objectives:
      ● To improve understanding of all aspects of the digital film: preproduction, production, and post-production.
      ● To continue to develop skills in camera operation, cinematography, video editing, sound editing, lighting, color correction, and visual effects.
      ● To learn to work collaboratively on video projects that require teamwork.
      ● To think critically about the innovative application of video in contemporary practices by analyzing video as a medium at the intersection of art, design, film, technology, and culture.
   b. Anticipated class size: 16 students
   c. Amount of scheduled class time: 3.5 hours per week
   d. Instructional format: New media project-based studio class
   e. No new lab equipment or space will be needed.
   f. Contact hours: 4
3. Two full-time faculty in the department can teach this course.
4. One section of this course is offered each academic year in the fall.
5. There will be no impact on the resources and staffing of the NM department due to this change.
6. CNS: n/a

Rationale: The new media curriculum is designed for students to take their three required 200-level courses in each of the tracks, Animation, Video and Interactive, in order for them to practice each and decide on a track to pursue. Often, however, students have been taking just their 200-level course of choice and moving right on to their upper-level track courses without sampling the other two 200-level courses. Then they take those last two, 200-level courses towards the end of their tenure in the department. This is a problem because they don't know the technical and theoretical content of those 200-level courses as they move into the 300 and 400 level classes and even, at times, their Senior Capstone. Adding a pre-req requirement for this 300-level video course for students to take NM 281, Introduction to Video Art and Design and one of the other 200-level introductory courses will require them to be more well-rounded going into this course but also avoid a bottleneck at the 300 and 400-level.

9.   **Delete:** On page 266, the entry for **NM 360, Digital Creation Lab: 3D Printing:**

   360   Digital Creation Lab: 3D Printing (4)
   Surveys the 3D printing and reality capture ecosystem. Students will gain hands-on experience creating 3D assets that are eventually printed on a 3D printer. Reality capture methods will include both fixed and mobile methods and discuss technical constraints and application. Digital prototyping will cover not only workflows but manage expectations of what's possible and what isn't with a 3D printer. Students will use existing off-the-shelf 3D software to complete their tasks while learning the key factors that go into successfully creating printable digital assets. Prerequisite: NM 251. Odd years Fall.

   Add: On page 366, in place of deleted entry:

   360   Digital Creation Lab: 3D Print and Model Making (4)
   A creative and experimental approach to 3D modeling, 3D printing, laser and waterjet cutting for model-making. Analog and digital making skills will be developed by solving a series of design prompts related to creating articulated puppets, vehicles and environments. Prerequisite: NM 251. Spring.

Impact:
1. This course fulfills a major requirement.
2. Information about the course:
   a. Learning Objectives:
      ● Develop an understanding of historical analog precedents for 3D printing and digital manufacture
      ● Demonstrate literacy in essential Computer Assisted Design (CAD) techniques
      ● Create original 3D designs for printing and laser cutting that are grounded in concepts and resourceful problem solving, creativity and expression.
      ● Present and discuss works of your own and those of your peers while developing a language for critique of digitally fabricated artwork
   b. Anticipated class size: 16-20 students
   c. Amount of scheduled class time: 3.5 hours per week
   d. Instructional format: New media project-based studio class
   e. No new lab equipment or space will be needed.
   f. Contact hours: 4
3. Three full-time faculty in the department can teach this course.
4. 1 section of this course is offered each academic year in the spring.
5. There will be no impact on the resources and staffing of the NM department due to this change.
6. CNS: n/a

Rationale: Adding "Model Making" to the title of this course will put it more in line with the animation track and students creating models and puppets to be used in stop motion animation projects. Our new facility in Owen Hall includes a fabrication lab (Owen 303) and a Stop Motion Animation Suite. The department now has expanded capabilities for offering stop motion special topics courses as well as expanded facilities for 3D printing and digital fabrication. These have allowed this course to grow and support the animation track more closely. This name change will help students to see how this course can fit with their work in animation. NM 360 has been offered regularly for the last several Spring semesters, so the description will now reflect this.

10. **Delete:** On page 267, the entry for **NM 410, Advanced Animation Techniques**:

> **410 Advanced Animation Techniques (4)**
> Study and utilization of advanced character animation techniques and elements of story to create convincing and entertaining animation. Students may choose traditional (2D), digital (3D), experimental and stop-motion techniques to create their work. Students may also work in small teams to create an animated short. Prerequisite: NM 310. Spring.

Add: On page 267, in place of deleted entry:

> **410 Advanced Animation Techniques (4)**
> Study and utilization of advanced character animation techniques and elements of story to create convincing and entertaining animation. Students may choose traditional (2D), digital (3D), experimental and stop-motion techniques to create their work. Students will also learn the basics of animating to dialogue. Prerequisite: NM 310. Spring.

Impact:
1. This course fulfills a major requirement.
2. Information about the course:
   a. Learning Objectives:
      ● To build upon the animation techniques and principles learned in NM 310 (Intermediate Animation).
      ● To learn how to mimic the work of master animators.
      ● To learn how to convey emotion and character development through animation.
      ● To develop the skills necessary for combining dialogue and body language in animation.
      ● To produce, animate, and complete fully-realized animated scenes that include dialogue.
   b. Anticipated class size: 20 students
   c. Amount of scheduled class time: 3.5 hours per week
   d. Instructional format: New media project-based studio class
   e. No new lab equipment or space will be needed.
   f. Contact hours: 4
3. Three full-time faculty in the department can teach this course.
4. 1 section of this course is offered each academic year in the spring.
5. There will be no impact on the resources and staffing of the NM department due to this change.
6. CNS: n/a

Rationale: A sentence about animating dialog has been moved from the description of the 300-level animation track course to this 400-level animation track course, as this more accurately reflects what is now being done in the classroom. This change also removes the statement that students will work collaboratively on animations. This is something that happens more in the Senior Capstone than in this 400-level track course.

11. **Delete:** On page 267, the entry for **NM 420, Advanced Interactive Media**:

   420   **Advanced Interactive Media (4)**
   Advanced techniques for designing and scripting complex interactive media and interfaces. Students will spend time in class presenting, defending, and improving their work based on formative faculty and peer feedback. Prerequisite: NM 320 or 330. Spring.

Add: On page 267, in place of deleted entry:

   420   **Interactive Physical Computing (4)**
   Advanced techniques for designing and scripting complex interactive media and interfaces. Students will spend time in class presenting, defending, and improving their work based on formative faculty and peer feedback. Prerequisites: CSCI 182, 183 or 185; NM 231, and either NM 251 or 281. Fall.

Impact:
1. This course fulfills a major requirement.
2. Information about the course:
   a. Learning Objectives:
      ● To create a series of advanced projects that apply interactive design skills and innovative concepts while demonstrating an increased understanding of the technologies used to create interactive content for 3D and 4D space.
      ● To think critically about art and design contexts, histories and theories of interactive media.
      ● To continue to develop skills in interactive design, including planning, coding, prototyping and implementation of physical computing projects.

- To improve upon the professional presentation of projects and clear articulation of interactive experiences while gaining confidence as a designer/artist and learning how to discuss works at an increasingly high level.
   b. Anticipated class size: 16 students
   c. Amount of scheduled class time: 3.5 hours per week
   d. Instructional format: New media project-based studio class
   e. No new lab equipment or space will be needed.
   f. Contact hours: 4
3. Two full-time faculty in the department can teach this course.
4. One section of this course is offered each academic year in the fall.
5. There will be no impact on the resources and staffing of the NM department due to this change.
6. CNS: n/a

Rationale: The 300 and 400-level interactive track courses (NM 320 and 420) cover two types of interactive media: physical computing and web or networked art and design. This change to the title of the 400-level course indicates that interactive physical computing techniques and concepts will be covered in this course, while the 300-level interactive track course will cover web and networked media. This will also clarify for students how this course differs from the 300-level class while allowing the professor teaching it to cover a range of topics that fall under interactive physical computing that build upon NM 231, Introduction to Interactive Media.

The new media curriculum is designed for students to take the three required 200-level courses in each of the tracks, Animation, Video, and Interactive, in order for them to practice each and decide on a track to pursue. Often, however, students have been taking just their 200-level course of choice and moving right on to their upper-level track courses without sampling the other two 200-level courses. Then they take those last two 200-level courses towards the end of their tenure in the department. This is a problem because they don't know the technical and theoretical content of those 200-level courses as they move into the 300 and 400 level classes and even, at times, their Senior Capstone. Adding a pre-req requirement for this 400-level interactive course for students to take NM 231, Introduction to Interactive Media, and one of their other 200-level introductory courses will require them to be more well-rounded going into this course but also avoid a bottleneck at the 300 and 400-level. The two upper-level Interactive track courses (NM 320 and NM 420) can be taken in any order, so the prerequisite of NM 320 or 330 is being removed. Changing NM 420, Interactive Physical Computing to Fall puts the catalog more in line with the way this course has been offered for the last several years. It alternates semesters with NM 320.

12. **Delete:** On page 267, the entry for **NM, 438 Senior Capstone Project**:

   438   **Senior Capstone Project (2)**
              Students design, develop and implement a long-term collaborative research project that demonstrates in-depth understanding, both conceptually and technically, of an aspect of new media. Prerequisite: one course from NM 310, 320, 330 or 350. Fall and Spring.

   Add: On page 267, in place of deleted entry:

   438   **Senior Capstone Project (2)**
              Students design, develop and implement a semester-long collaborative research project that demonstrates in-depth understanding, both conceptually and technically, of an aspect of new media. Prerequisite: NM 231, 251, 281, and at least 4 credit hours at the 300-400 level in declared emphasis area. Fall and Spring.

Impact:
1. This course fulfills a major requirement.
2. Information for this course:
   a. Learning Objectives:
      ● Work in a team to develop a large-scale new media project
      ● Generate concepts based on research and intuition
      ● Understand common themes and forms in new media art
      ● Practice a historically accepted creative process
      ● Justify the merits and identify the flaws of various creative approaches at given stages of the creative process
      ● Understand the inherent strengths and weaknesses of any theoretical creative process
      ● Identify personal creative strategies that optimize individual strengths and characteristics
      ● Develop an aptitude for creating under conditions of high uncertainty
      ● Improve technical software skills by creatively applying them to the specific project constraints
      ● Identify ways in which innovative new media can contribute to positive social change
   b. Anticipated class size: 20 students
   c. Amount of scheduled class time: 1.75 hours per week
   d. Instructional format: New media project-based studio class
   e. No new lab equipment or space will be needed.
   f. Contact hours: 2
3. Seven full-time faculty in the department can teach this course.
4. Two sections of this course are offered each academic year in the fall and spring.
5. There will be no impact on the resources and staffing of the NM department due to this change.
6. CNS: n/a

Rationale: We are changing one hyphenated word, "long-term," to "semester-long" as the latter more accurately describes the length of the collaborative research project that the students undertake in this course. Having the prerequisites set to the 300-level track courses has been causing some issues for students taking this capstone course and for faculty teaching it. Specifically, students who take their track courses out of order or who take their 400-level track course concurrently with their Senior Capstone course must seek pre-req waivers in order to register for this course. This occurs frequently. By changing the pre-req to requiring students to take all of the 200-level Introductory New Media courses as well as 4 credit hours in their emphasis area will allow them to be prepared to make the most of Senior Capstone by having them solidly working in their emphasis area when they take this culminating capstone course.

13. **Delete:** On page 267, the prerequisite for **NM 490, Proseminar and Portfolio**:

> **490   Proseminar and Portfolio (2)**
> Students will develop and implement an individual project and construct a portfolio of completed projects for use in professional or graduate school environments. Students will consider the impact of new media from multiple viewpoints.
> Prerequisite: NM 438. Fall and Spring.

Add: On page 267, in place of deleted entry:

> **490   Proseminar and Portfolio (2)**
> Students will develop and implement an individual project and construct a portfolio of completed projects for use in professional or graduate school environments. Students will consider the impact of new media from multiple viewpoints.
> Prerequisite: NM 231, 251, 281, and at least 4 credit hours at the 300-400 level in declared emphasis area. Fall and Spring.

Impact:
1. This course fulfills a major requirement.
2. Information for this course:
   a. Learning Objectives:
      - Work individually to develop a large-scale new media project
      - Design, implement, and present a portfolio (web site or reel) of your work
      - Generate concepts based on research and intuition
      - Practice a historically accepted creative process
      - Improve technical software skills by creatively applying them to specific project constraints
      - Critique the work of your peers
      - Defend your creative decisions and respond to peer critique of your own work
   b. Anticipated class size: 20 students
   c. Amount of scheduled class time: 1.75 hours per week
   d. Instructional format: New media project-based studio class
   e. No new lab equipment or space will be needed.
   f. Contact hours: 2
3. Seven full-time faculty in the department can teach this course.
4. Two sections of this course are offered each academic year in the fall and spring.
5. There will be no impact on the resources and staffing of the NM department due to this change.
6. CNS: n/a

Rationale: This course previously had NM 438, Senior Capstone as the prerequisite; however, many students take this course concurrently with NM 438 in order to graduate on time and to fill their schedule, as both NM 438 and NM 490 are 2-credit senior capstone courses. This has caused confusion among the students as to whether or not they can take them concurrently (they can and do and it works fine) and has caused the faculty member teaching the course to have to give many pre-req waivers in order for the students to register. Changing the prerequisites to match those for NM 438 - all of the 200-level Introductory New Media courses as well as 4 credit hours in their emphasis area - will also allow them to be prepared to make the most of Proseminar and Portfolio by having them solidly working in their emphasis area when they take this post-graduation preparation course.