SMU

Master of Arts in Creative Technology

This innovative, 100% virtual, 30 credit-hour creative technology master's degree program will help prepare you for not only the present, but the future.

Program Overview

This program combines creative and design disciplines with core and emerging digital technologies to generate innovative solutions growing in demand across multiple industries. The broad range of topics will help prepare creative and technical-oriented individuals to combine their skill sets across interactive media, design, programming, blockchain and generative AI applications.

Within this master's program, you'll learn how to utilize innovative technologies to advance your creative capabilities and prepare for the rapidly evolving needs of the industry. Upon graduation, you will be able to advance your career possibilities in graphic design, animation, augmented and virtual reality development, and more.

Who Will Benefit?

The Master of Arts in Creative Technology program is ideal for professionals looking to stay ahead of the curve in an increasingly technology-driven world and to position themselves for success in a variety of exciting, high-demand careers.

- Individuals looking to transition into a new career in creative or technology-related fields
- Coders passionate about innovation in technology and the arts
- Creative professionals who desire a deeper understanding of emerging technologies like AI, Web3, Blockchain, NFTs, AR/VR and data visualization
- Designers who want to augment their skill set with a greater understanding of programming languages and concepts
- Software developers who are interested in design and the creative process
- Individuals who have a passion for innovation and the creative application of technologies

Live, virtual collaborative sessions

Interact with classmates and faculty through discussion boards, group study, chat rooms

Access coursework on the go via the Canvas app

20 hours per week minimum commitment

Complete your degree in as few as 2 years

3 sessions start annually in fall, spring and summer

$1,550 per credit hour

Talk to a representative for more details about the program, application process and flexible payment options.

Faculty Spotlight

Ira Greenberg - Professor and Program Director

With an eclectic background combining studio arts and computer science, Ira Greenberg has been a painter, 2D and 3D animator, print designer, web and interactive designer/developer, programmer, art director, creative director, managing director, art and computer science professor and, author.

He wrote the first major language reference on the Processing programming language, *Processing: Creative Coding and Computational Art* (Berkeley, CA: friends of ED, 2007) and two subsequent creative coding texts. Greenberg holds a B.F.A. from Cornell University and an M.F.A. from the University of Pennsylvania.

While his formal education and early career focused on studio art (painting), SMU professor Ira Greenberg always had an interest in approaching technology from a creative standpoint. Early in his career, he decided to blend visual arts skills with computation, creating a unique area to work both as an artist and an academic.

His work eventually led to the creation of the Center of Creative Computation at SMU (where he serves as the Director) and the university's B.A. in Creative Computing program. The Master of Arts in Creative Technology will combine creative and design disciplines with core and emerging digital technologies, including an emphasis in Web3.

A primary benefit of the master's program is that students don't need prior programming experience. Greenberg said his experience writing books and overseeing the bachelor's degree program in creative technology has taught him to make the curriculum as accessible as possible to people from a variety of professions.

He said the program is designed "to not only purely relate to creative people or computer scientists, but to the people in between."

Most programs that teach coding are tech-based, which can prove challenging for someone with a more creative mindset. The master's program will help prepare creative and technical-oriented professionals to apply a unique combination of skills in areas that include interactive media, design, coding, artificial intelligence, NFTs (non-fungible tokens), blockchain applications and more.

Faculty Spotlight

David Smith

David Smith is a visual artist currently based in Dallas, Texas. After retiring in 2014 from a 21-year military career, he now teaches Creative Coding for App Development for SMU's M.A. in Creative Technology program. His work explores the space between fine art and computer coding, in search of an art that is the hybrid of historical tradition and future technology with the concept of "post-computational" as a cornerstone of his work.

Melanie Clemmons

Melanie Clemmons is a new media artist and assistant professor of digital/hybrid media. Clemmons teaches the Mobile Computing & Augmented Reality course in the M.A. in Creative Technology program at SMU. She explores the exponential ubiquity and advancement of networked digital technologies, and the myriad and often bizarre ways humanity is irrevocably altered by them (for better or worse).

Ruby Thelot

Ruby Thelot is a designer, cyberethnographer and researcher based in New York. He teaches AI in the Metaverse in the M.A. in Creative Technology program at SMU. He is the founder of the award-winning creative research and design studio 13101401 Inc. His research and artwork focus on the interactions between humans and artificial intelligence, the metaverse and the implications of being-on-line.

Burke Jam

Burke Jam is an artist working in sound, installation and performance. As a programmer, his focus is on generative systems and data representation – exploring human and environmental relationships. He is currently a Visiting Lecturer in the Center of Creative Computation, Program Director of SMU in Tokyo–Study Abroad at the SMU Meadows School of the Arts and teaches the Interactive and Experiential Design course in the M.A. in Creative Technology program.

Jeff Cavitt

Jeff Cavitt is a 19-year veteran of the video game industry. His areas of expertise include teaching hard surface modeling, texturing, game interactions and game engines. He teaches the 3D Modeling and Animation online course in the SMU M.A. in Creative Technology program.

Curriculum Overview

CRCP 6310

Introduction to Creative Coding - 15 weeks - Taught by Ira Greenberg

Students explore computation as a powerful generative medium while learning fundamentals of coding and computational thinking. Hands-on topics include algorithmic drawing, procedural imaging, 2D and 3D animation, visualization, interactivity, gaming and an introduction to object-oriented programming.

CRCP 6320

Principles of Digital Design - 15 weeks - Taught by Ira Greenberg

Students learn principles of design theory, as applied to screen-based and other digital applications and systems. Topics introduced include brainstorming, thumbnailing, wireframing, imaging, typography, layout and the grid, color theory, user experience, interface design, virtual ecosystems, generative NFTs and AI, and the history of design.

CRCP 6330

Creative Coding for the Web - 15 weeks - Taught by Ira Greenberg

Students learn the fundamentals of Web development, including an introduction to front-end, back-end and full-stack development. Individual and team-based creative projects are introduced that integrate principles of aesthetics, information design, Web applications, cloud-based architecture, UX/UI, Web3, NFTs and blockchain.

Prerequisite: CRCP 6310 - Introduction to Creative Coding or instructor permission

CRCP 6340

Creative Coding for Application Development - 15 weeks - Taught by David Smith

Students learn advanced creative coding principles, across multiple programming languages and platforms, with an emphasis on Web3 technology. Topics covered include software systems, real-time performance, 3D virtual environments, interactive applications, mobile development, augmented installations, IPFS and smart contracts.

Prerequisite: CRCP 6310 - Introduction to Creative Coding or instructor permission

CRCP 6350

3D Modeling/Animation - 15 weeks - Taught by Jeff Cavitt

Students learn 3D modeling and animation using leading software packages, such as Maya and Blender. Topics include virtual sculpting, texture mapping, transformations, procedural shaders, virtual lights and cameras, timeline-based animation, scripting and special effects.

CRCP 6360

Interactive and Experiential Design - 15 weeks - Taught by Burke Jam

Students explore holistic system design for innovative audience engagement and experience of places, environments, ideas and products. Topics covered include exhibition design, concerts and events, public installation, sensory based marketing, immersive environment design, AR/VR interaction, video installation and projection mapping.

Prerequisite: CRCP 6310 - Introduction to Creative Coding or instructor permission

CRCP 6370

Artificial Intelligence in the Metaverse - 15 weeks - Taught by Ruby Thelot

Students explore VR and immersive solutions across various platforms, systems and software stacks. Topics include enhanced user experience, multi-sensory interface design, immersion and presence, the metaverse, accessibility and relevant ethical concerns.

Prerequisite: CRCP 6310 - Introduction to Creative Coding or instructor permission

CRCP 6380

Mobile Computing and Augmented Reality - 15 weeks - Taught by Melanie Clemmons

Utilizing multiple frameworks, students focus on mobile and AR application development and operating system integration for touchscreen mobile devices such as smartphones and tablets. Cross platform and hybrid development are explored. Topics covered include front-end development tools, back-end server tools, security layering, application deployment and testing, and ethical data considerations.

Prerequisite: CRCP 6310 - Introduction to Creative Coding or instructor permission

CRCP 6390

Data Expression - 15 weeks - Taught by Burke Jam

Students are introduced to data as a motif for creative expression and storytelling. Topics include visualization, sonification, social media data scraping, data APIs, databases, big data, basic statistics, data mining and machine learning.

Prerequisite: CRCP 6310 - Introduction to Creative Coding or instructor permission

CRCP 6300

Creative Technology Capstone - 15 weeks - Taught by Danielle King

In consultation with a faculty advisor and approved capstone committee, students propose, design and implement an independent creative computing project. Projects may include performance, exhibition, and hardware and/or software development. Students are encouraged to explore interdisciplinary research opportunities and committee members. Requires completion of a paper summarizing significant project outcomes and results and a public presentation/demonstration/exhibition organized by the student. To be completed in the student's last term of the program.

Prerequisite: Instructor permission if not taken as the last term.

What to Expect

The Master of Arts in Creative Technology curriculum includes 10 required courses, with each course being three credit hours. Students will enroll in two courses per 15-week term in Fall, Spring and Summer for a total of five terms.

- Fall - 15 weeks
- Spring - 15 weeks
- Summer - 15 weeks

Upon your successful completion of the program, you should expect to be able to:

- Utilize emerging technologies like generative AI, AR/VR tools and Blockchain
- Integrate new techniques into your existing creative or development skill set
- Collaborate more seamlessly with cross-functional colleagues
- Understand and be able to use fundamental web development and object-oriented programming techniques
- Apply design principles and visualization techniques to UI/UX design, immersive experiences, mobile/web applications, NFTs and data expression

Admission Requirements

Résumé

You should submit a résumé that addresses your professional history as well as your educational and career interests.

Transcripts

Transcripts from all colleges and universities attended. If your academic transcripts are not in English, you must submit a notarized, official English translation.

Statement of Purpose

You must submit a statement of purpose describing your interest in creative technology and your motivation(s) for enrolling in the M.A. in Creative Technology program.

Professional References

Contact information for two professional references who are able to evaluate your professional performance. At least one of your contacts should be from your current or most recent supervisor.

Students who apply by the priority application deadline are eligible to wave the $75 application fee.

Priority Application Deadlines:
Fall: June 1 • Spring: October 1 • Summer: February 1

About SMU

Southern Methodist University is accredited by the Southern Association of Colleges and Schools Commission on Colleges. The University will create, expand and impart knowledge through teaching, research and service, shaping world changers who contribute to their communities and excel in their professions in a global society.

Formally established in 1969, the Algur H. Meadows School of the Arts is a leader in developing innovative outreach and community engagement programs such as the Master of Arts in Creative Technology. The Meadows School of the Arts educates visionary artists, scholars and arts and communications professionals prepared to create sustainable and transformative impact both locally and globally.

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smu.edu/creativetech