

EXCEPTIONAL MINDS

FULL-TIME PROGRAM COURSE CATALOG 2024/2025

Exceptional Minds Full-time Program offers a three-year lockstep progression of courses designed to create the most versatile and adaptable skill-set for employment in the student's chosen fields of Animation, Visual Effects, 3D, and Motion Graphics. This catalog provides information on the course sequence, skills being taught, resources, and requirements of Exceptional Minds Full-time Program curriculum.

Included in this catalog is:

- Full-Time Program Overview
- Graduation Requirements
- Course Sequence Overview
- Course Descriptions and Course Objectives by year

Full-Time Program Overview

Studio Track Classes: Exceptional Minds' Full-Time program offers curriculum for students pursuing an **Animation Track** or a **Visual Effects (VFX) Track** aimed at building specialized skills needed to perform work at Exceptional Minds Animation or Visual Effects Studio and other competitive studios. Students' qualifications for a track will be determined in the Spring trimester of their first year. Placement into either the *Animation Track* or *VFX Track* is based on the following criteria: 1.) satisfactory completion of an animation or VFX track application, 2.) competitive employment prospects based on the student's current skill set, and 3.) instructor recommendation.

Core & Elective Classes: Students enrolled in Exceptional Minds' Full-Time Program are required to take *Core & Elective* classes every year. Currently, Exceptional Minds offers the following *Core & Elective* classes: 1.) **Elements and Principles of Design: Photoshop** (required in the 1st Year), 2.) **Motion Graphics: After Effects and Cinema 4D** (elective intermediate and advanced classes), and 3.) **3D: Maya and Zbrush** (elective intermediate and advanced classes) which includes lessons on modeling, lighting, texturing, and animation.

Employment/Vocational Training Classes: Exceptional Minds is dedicated to providing students with the opportunity to learn the skills necessary for success in a professional work environment.

EXCEPTIONAL MINDS

In the first-year **Work Readiness** class, students focus on developing professional “soft skills.”

In the second-year **Career Realities** class, students create the professional products needed to apply for a job and practice job interview and networking skills.

In the third-year **Portfolio** class, students work to tailor their demo reels to a variety of entry-level jobs within their track.

Student Evaluations: Skills Completed Learning Score (SCLS) are formally communicated to students in **Progress Reports** at the midpoint and end of every trimester. **SCLS** scores are fluid measures of a student’s progress in and mastery of each course in which they are enrolled. Unlike grades, these are not a one-time measure of student performance, as a student can improve their score at any time. Students are required to maintain an average of 80% or greater on their **SCLS** assessment for each class in order to advance and graduate from our program. Additional evaluations conducted in the Full-Time Program are outlined in the **Student Handbook**.

After School Labs: Technical Labs run every Tuesday and Thursday from 4:00 P.M. to 6:00 P.M. Students can use lab time in Technical Lab for remediation (e.g. making up for missed classes or improving **SCLS** scores), or advancement of personal projects. **Drawing Lab** runs every Wednesday.

Clubs and Workshops: Throughout the school year, Exceptional Minds offers students the opportunity to participate in **Clubs** as well as **After-school** and **Saturday Workshops**. In order to participate in clubs and workshops, students must be caught up with all classwork and have an average of 80% or above on their **SCLS** assessments.

Social Programming: Social Programming, which includes activities such as D&D role-playing, movie night, and game night, is available throughout the year. Students will be asked to sign up to participate. Students’ ability to participate in *social programming* is not affected by class performance.

Health & Wellness: Students are encouraged to participate in daily **Lunchtime Walks**. Students are also able to make weekly or bi-monthly appointments with our on-staff **Behavior Analyst**. Appointments may be requested by the student or recommended by staff to support personal and professional goals.

EXCEPTIONAL MINDS

Graduation Requirements

Course Requirements:

- 1 Year of Survey Classes (Animation, VFX, 3D, Motion Graphics, Photoshop) scoring 80% or higher on SCLS assessments
- 2 Years of Studio Track Classes (Animation, VFX) scoring 80% or higher on SCLS assessments
- 2 Years Elective Classes (Motion Design, and/or 3D) scoring 80% or higher on SCLS assessments
- 3 Years Vocational Training Classes (Work Readiness, Career Realities, Portfolio) scoring 80% or higher on SCLS assessments

Vocational Competency:

- 3 interviews (real or practiced), 1 per year
- 3 papers, 1 per year
- 3 public speaking presentations, 1 per year

Volunteer Hours:

- 40 hours

Minimum Attendance:

- Must be present in classes 80% or more of the time. Attendance is recorded daily.

EXCEPTIONAL MINDS

Course Sequence 2024/2025

Level/Year	Course Group	Fall	Winter	Spring
Introductory Year 1	Studio Track (Students survey all tracks in the first year)	• Intro to Animation 101	• Intro to VFX 102	• Intro to 3D 103
	Core	• Photoshop 101	• Photoshop 102	• Photoshop/ Motion Graphics 103
	Vocational	• Work Readiness 101	• Work Readiness 102	• Work Readiness 103
Intermediate Year 2	Studio Track (Students commit to VFX or Animation track in the second year)	• VFX Track 201 • Animation Track 201	• VFX Track 202 • Animation Track 202 • 3D Environment Design w/ Unreal Engine 202* (*open to all 2nd and 3rd year students)	• VFX Track 203 • Animation Track 203 • 3D Environment Design w/ Unreal Engine 203
	Core Elective	• Motion Graphic/3D 201	• Motion Graphics 202 • 3D 202	• Motion Graphics 203 • 3D 203
	Vocational	• Career Realities 201	• Career Realities 202	• Career Realities 203
Advanced Year 3	Studio Track	• Advanced VFX 301 • Advanced Animation 301	• Advanced VFX 302 • Advanced Animation 302	• Advanced VFX 303 • Advanced Animation 303
	Core Elective	• Motion Design 301 • 3D for Animation 301	• Motion Design 302 • 3D for Animation 302	• Motion Design 303 • 3D for Animation 303
	Vocational	• Portfolio 301	• Portfolio 302	• Portfolio 302

EXCEPTIONAL MINDS

Introductory Courses

Work Readiness 101 – 103

Work Readiness is a year-long course that focuses on fostering the essential “soft” skills necessary to function and thrive independently in the modern workforce. It covers 5 primary learning areas: professional dress, professional demeanor, self-management, problem-solving, and conflict resolution.

Course Objectives

- Students will describe the basic characteristics of the appropriate professional dress continuum and how it changes based on the context of the event or environment, as well as produce rules about dress derived from the culture of novel examples.
- Students will describe and demonstrate appropriate workplace behavior with respect to: attitudes, flexibility, active listening, acceptance and delivery of feedback, and professional conversational skills (e.g. topics, initiation, dynamics of group conversation).
- Students will describe, design and implement numerous self-management strategies including, but not limited to: self-prompting, note-taking, goal setting, energy levels, contriving motivation for and reinforcing target behaviors.
- Students will describe and implement numerous problem-solving strategies using the RPPS model to novel examples (e.g. trial and error, backward chaining, task analysis, ask an expert, one part at time, problem re-contextualizing, determination of cause, evaluating assumptions).
- Students will describe, design, and implement technical aspects to promote a professional image utilizing technology and social media (e.g., demo reels, LinkedIn™, website, etc.)
- Students will be able to describe the pros and cons of multiple approaches to conflict resolution and prevention, as well as employ those strategies to novel concepts in role-play scenarios.
- Students will identify and demonstrate appropriate non-verbal communication/ body language.
- Students will identify an applied skill, locate a YouTube tutorial, and gain the skill as demonstrated by creating a permanent product utilizing that skill.

EXCEPTIONAL MINDS

Intro to Animation 101

Working with Adobe Animate, students will learn the 12 Principles of Animation and cinematic techniques for visual storytelling. This introductory course will also focus on the development of positive professional habits including note-taking, organization, and presenting work, as well as performing various aspects of the animation production process and pipeline.

Course Objectives

- Students will be able to navigate and identify components of the Adobe Animate interface.
- Students will use the tools and features of Animate to create storyboards and animated shorts.
- Students will demonstrate the appropriate application of the 12 Principles of Animation, the Elements and Principles of Design, and the 5 C's of Cinematography to their animated projects.
- Students will participate in dailies to understand best practices in giving and receiving feedback.
- Students will practice figure drawing and its application in character animation.
- Students will work in a production pipeline and be able to identify components of the animation production process.
- Students will create a demo reel to show their work.

Intro to VFX 102

Students will be introduced to the core Visual Effects concepts of Motion and Occlusion. Assignments will demonstrate tracking and rotoscoping techniques that will build through project-based exploration using the Adobe After Effects CC interface. Students will also learn about different VFX concepts and terminology and how the industry has evolved over time. The projects completed will prepare them for assessment for the Visual Effects track.

EXCEPTIONAL MINDS

Course Objectives

- Navigate the Adobe After Effects CC Interface.
- Identify motion and occlusion using professional terminology and visual examples.
- Understand the concepts of appearance blending and grain matching in relation to VFX.
- Track simple motion and apply tracking data using point tracking.
- Track simple motion and apply tracking data using Mocha for After Effects.
- Remove the solid-colored background of an occluding element layer.
- Remove an occluding element from its background using Layer Masks.
- Blend composited elements together with appearance and grain effects.
- Assess the potential for VFX Course Track.

Intro to 3D (and Unreal Engine) 103

This course introduces students to the fundamentals of 3D animation through the tools available in Autodesk Maya. Students will learn the core 3D skills: modeling, texturing, animation, lighting, and rendering. Students will also be introduced to the Unreal game engine with an emphasis on importing 3D assets and level layout.

Course Objectives

- Students will have a comprehensive overview of the Maya interface.
- Students will demonstrate their 3D modeling skills with the creation of a variety of 3D objects.
- Students will create and apply materials to their 3D models.
- Students will utilize the 12 Principles of Animation and understand how they are applied in 3D.
- Students will demonstrate mastery of basic animation skills through completing multi-part animation of modeled objects.
- Students will complete a lighting setup for the class project.
- Students will generate and animate cameras to create a movie from the project
- Students will demonstrate fluency of rendering skills by rendering the class project with different formats and from different renderers.
- Students will import custom assets into the Unreal game engine.
- Students will create a custom game level using their assets.

EXCEPTIONAL MINDS

Photoshop 101 – 103

Over the course of this year-long class, students will learn the fundamentals of Photoshop to produce graphics, retouch photos, and create digital compositions and paintings. Using hands-on exercises, students will learn the creative pipeline for developing narrative details and communicating them visually utilizing the Elements and Principles of Design. In the Spring trimester, students will explore how Photoshop and After Effects work together to create Animated Motion Graphics. This course will also focus on the development of professional presentation skills and teamwork.

Course Objectives

- Have the ability to fluently navigate Photoshop Interface and Tools
- Be able to define the Elements and Principles of Design and apply them appropriately in their work.
- Create digital artwork for print and the web.
- Create assets to enhance work in Animate, Premiere, After Effects, and Maya.
- Use the rules of perspective to create accurate representations of 3D space.
- Use color theory to manipulate and color correct photos.
- Be introduced to digital painting techniques for creating backgrounds and clean plates.
- Work with thumbnails to experiment with composition and to receive preliminary feedback about their projects.
- Design with and format text.
- Be introduced to basic techniques for creating Motion Graphics in After Effects.

EXCEPTIONAL MINDS

Intermediate Courses

Career Realities 201 – 203

In this year-long course, students will begin their targeted exploration of career paths in the Animation, Visual effects, 3D, and Motion Design industries. Students will focus on branding themselves as artists and gather and create materials for presenting to potential employers. Additionally, students will be expected to learn and use industry terminology to describe their skills and present themselves as aspiring industry professionals.

Course Objectives

- Students will have a polished professional resume.
- Students will create two different demo reels.
- Students will create a website that highlights professional work.
- Students will practice the multi-step process of applying for a position
- Students will demonstrate appropriate usage & application of a variety of types of social media.
- Students will develop organization skills and strategies appropriate to the workplace.
- Students will identify and demonstrate appropriate non-verbal communication/ body language.
- Students demonstrate proficiency in the job interview process.
- Students will demonstrate vocational proficiency in note-taking and feedback appropriate to an entry-level position.
- Students will demonstrate appropriate spoken and written communication in the work environment.
- Students will demonstrate ability to research and present information on industry professionals and topics.
- Students will demonstrate proficient ability in networking in the movie and film industry.
- Students will develop mastery in content-sharing methods that are used for collaboration in the workplace.

EXCEPTIONAL MINDS

Animation Track 201 – 202

Using the Animation Principles of appeal and solid drawing, students will use shape language and composition to develop a thorough understanding of props, environments, and characters designed specifically for visual storytelling. Students will also produce prop, model, and environment design sheets ready for Story and Layout. Students work primarily in Adobe Animate and Photoshop.

Course Objectives

- Complete Sketchbook
- Proper Measurements through Observation Drawing (Sighting)
- Mastery of drawing techniques with varied mediums
- Generate revolves/callout sheets of various props
- Incorporate organic Shape Language into character designs
- Work with the Principles of Solid Drawing and Appeal
- Design characters at various points on the Style Spectrum
- Generate individual 5 Point Body and Head revolves, as well as Pose Sheets
- Determine how and when to use appropriate reference

Animation Track 203

This class will focus on storyboarding and developing ideas as key pre-production tools for narrative animation, film, and gaming projects. Students will learn how a combination of shot angles, camera movements, principles of art and design, and basic composition can create a story. The lectures, classwork, and assignments will help students to expand their own cinematic drawing techniques, and help them to develop clear and dynamic stories for the screen. They will also be exposed to professional examples of storyboards and animatics. A technical focus on Toon Boom's Storyboard Pro will form the foundation of the class.

Course Objectives

- Navigate the interface of Storyboard Pro
- Communicate conceptual ideas through storyboards
- Relate the fundamentals of the storyboarding process/design techniques both visually and verbally.
- Produce a storyboard sample for your reel

EXCEPTIONAL MINDS

VFX Lab Track 201

In this intermediate-level course, students will learn the basics of professional VFX techniques using Nuke software. They will be able to apply tracking, rotoscoping, and appearance blending techniques to footage to create engaging projects to supplement their demo reel creation.

Course Objectives

- Students will demonstrate and be assessed on retained skills in VFX from their intro After Effects course
- Students will learn the basics of operating Nuke software
- Students will learn what nodes are the most commonly used ones in VFX production
- Students will identify elements of a professional VFX pipeline and common roles in it
- Students will ingest and output different project and media file types based on provided specs
- Students will analyze novel VFX shots and identify problems and possible solutions in the areas of Motion Tracking, Rotoscoping, and Appearance Blending.
- Students will receive and apply feedback notes from both VFX supervisor and VFX client, and provide feedback notes for fellow VFX artists
- Students will complete VFX composites on novel VFX shots for evaluation and VFX reel creation

VFX Lab Track 202 – 303 (Offered Only 2023-2024)

Students will continue to create visual effects composites, utilizing Nuke and After Effects software. Students will also show mastery of tracking and rotoscoping concepts obtained in the previous class and apply existing knowledge to screen and monitor burn-ins. Students will then take a deeper dive into appearance blending and how it relates to clean plating methodologies and grain matching.

EXCEPTIONAL MINDS

Course Objectives

- Students will demonstrate and be assessed on retained skills in VFX shot analysis from the previous trimester
- Students will identify elements of a professional VFX pipeline and common roles in it
- Students will analyze novel VFX shots and identify problems and possible solutions in the areas of Motion Tracking, Rotoscoping, Appearance Blending, and Grain Matching, working in groups and independently
- Students will receive and apply feedback notes from both VFX supervisor and VFX client, and provide feedback notes for fellow VFX artists
- Students will complete VFX composites on novel VFX shots for evaluation and VFX reel creation
- Students will demonstrate the ability to create various types of clean plates from photographic and painted sources
- Students will demonstrate tracking and rotoscope mastery by applying new imagery to monitor and screen burn in shots
- Students will be introduced to basic keying (green screen) methodologies and be able to complete simple background replacements on shots

Motion Graphics/3D 201

Working within a professional commercial production workflow students will create a commercial concept for a real or imagined product. Students will develop skills in concept development and look development for graphic design-oriented projects. Students will work within a 2.5D/3D pipeline combining 3D work in Maya with 2.5D compositing in After Effects.

Course Objectives

- Students will utilize graphic design principles to create a concept for a product-based commercial advertisement.
- Students will utilize principles of animation in both 2D and 3D motion graphic animation.
- Students will demonstrate an understanding of the purposes of motion design projects.
- Students will demonstrate an understanding of advertising terminology as used in the creation of video commercials.

EXCEPTIONAL MINDS

- Students will create a design brief, a shot list, and storyboard sequence, and an animatic for their commercial.
- Students will design a small product.
- Students will model and animate their products in 3D.
- Students will design a product logo.
- Students will build and animate their logo in 3D.
- Students will Integrate 3D renderings with 2.5D typography, graphic design elements, and effects.
- Students will participate in dailies and critiques using best practices in note-taking and giving and receiving feedback.
- Students will present their final project to the class.
- Students will meet project deadlines.

3D 202–203

In this course students will continue to learn 3D through the tools available in Autodesk Maya 2022 with a focus on low poly modeling, detailed texturing, rigging, and an intro to character animation.

Course Objectives

- Students will demonstrate the appropriate application of the 12 Principles of Animation
- Students will demonstrate mastery of basic animation skills through completing multiple character animation exercises.
- Students will demonstrate their 3D modeling skills with the creation of a 3D character.
- Students will create UVs and materials then apply them to their 3D models.
- Students will create character rig for model
- Students will participate in dailies and critiques.
- Students will meet all project deadlines.

EXCEPTIONAL MINDS

Motion Graphics 202 – 203

Students will use Adobe After Effects and DUIS Bassel to create unique product-driven pieces. Students are expected to utilize the production pipeline for developing narrative details and communicating them visually utilizing the Elements and Principles of Design. This course will also focus on the development of professional presentation and feedback skills.

Course Objectives

- Use Adobe After Effects as a medium to achieve fluency in the Elements and Principles of Design as well as the 12 Principles of Animation.
- Gain experience operating in a Production Pipeline, and the different roles necessary to complete a project independently.
- Create Animation using Plug-ins for After Effects to expedite the Production Process.
- Complete an Animated Infographic Project.

3D Environment Design in Unreal Engine

Students will create a 3D background/environment for use in real-time, pre-rendered, or VFX projects. Students will practice scene layout, image composition, and lighting in the Unreal Engine 5 editor. Students will create scene block out(s) appropriate for cinematic, or interactive uses. Students will add detail to their scene by creating models in Maya (or other 3D software) and using assets from the Quixel Megascan collection. Students will use Unreal Engine 5 lighting techniques to finalize their designs. By the end of the workshop, students will be familiar with the Unreal Engine 5 editor, content management, map/scene building, simple modeling, and lighting.

Course Objectives

- Scene composition and layout for different types of environment uses
- Gathering reference materials
- Unreal Editor 5 Interface Navigation
- Using the UE5 Content Browser to add and organize content
- Creating Maps/Levels
- Adding content to a Map/Level
- Using the UE5 World Outliner and Details panel to manipulate assets
- Using the UE5 Landscape object

EXCEPTIONAL MINDS

- Creating assets in Maya
- Importing/Exporting assets
- Accessing assets from Quixel Megascans
- Accessing assets from the UE Marketplace
- Basic scene construction
- Basic camera setup
- Lighting setups for exterior and interior environments
- Creating and rendering Cinematics
- Completing assignments on a deadline

EXCEPTIONAL MINDS

Advanced Courses

Portfolio 301 – 303

The Portfolio class focuses on individualized career path planning utilizing SWOT, market trend analysis, and backward chaining to create realistic employment targets and develop the specific assets needed (e.g. reel, resume, portfolio, website, etc.) for maximizing the individual's prospects for employment after graduation. The class will primarily consist of independent study, but group instruction will occur each afternoon when the vocational principles of job searching, market research, self-promotion, career path planning, networking, and finance management are taught, or when certain technical/artistic skills apply to all. Students will create Gantt charts to track long term projects; students will track their hours for their technical classes and submit timecards; students will search for and apply to relevant job postings on a weekly basis.

Course objectives

- Students will produce a written career path plan (e.g. employment targets, organization hierarchies, employment goal timelines, self-marketing strategies, financial analysis).
- Students will demonstrate the appropriate application of advanced vocational skills via interviews, job applications, professional communication, networking and event attendance.
- Students will create well-polished permanent products necessary to pursue the identified employment targets.

Advanced Animation 301 – 303

An overarching Simulated Studio Project is presented to the class at the beginning of the course. The class is split up into the 4 Focus Areas addressed by the course. Teams will be grouped by Focus, and tracked in Trello or similar software. Students will be required to work with each other to complete certain tasks. Students will be required to produce 3-5 reel pieces for their Primary Focus, and 2-3 for their Secondary Focus. Students work in a variety of software related to their Focus areas including: ToonBoom Harmony, Storyboard Pro, After Effects, Photoshop, and Adobe Animate.

EXCEPTIONAL MINDS

Course Description

- Students will demonstrate entry-level or greater skills in two of the listed focus areas:
 - Visual Development, Visual Storytelling, Motion Graphics, and Animation
- Students will complete projects for their reel
 - 3-5 in their primary focus area
 - 2-3 in their secondary focus area
- Recognize and define common visual storytelling vocabulary
- Work on several group projects to experience different roles and responsibilities in a production pipeline

Advanced VFX 301 – 303

In this advanced-level course, students will build upon their previously obtained visual effects skills, and explore more complex problems, and problem-solving techniques for a variety of visual effects tasks utilizing Nuke, Mocha, Silhouette, and a variety of other software and plug-ins. Students will be held to a higher standard of studio-level QC including colorspace, grain, and file naming conventions. Students will develop a year-long thesis project demonstrating tracking, rotoscoping, compositing techniques for 3D, and appearance blending techniques to footage applied to create engaging projects.

Course Objectives

- Students will demonstrate and be assessed on retained skills in VFX from their intermediate Nuke course
- Students will learn advanced aspects of operating Nuke software
- Students will learn commonly used studio techniques in VFX production
- Students will identify elements of a professional VFX pipeline and common roles in it
- Students will ingest and output different project and media file types based on provided specs and naming conventions
- Students will analyze novel VFX shots and identify solutions to advanced problems in the areas of Motion Tracking, Digital painting, Rotoscoping, and Appearance Blending.
- Students will composite 3D assets into live action footage.
- Students will design a thesis shot.

EXCEPTIONAL MINDS

- Students will receive and apply feedback notes from both VFX supervisor and VFX client, and provide feedback notes for fellow VFX artists
- Students will complete VFX composites to studio QC standards on novel VFX shots for evaluation and VFX reel creation

3D for Animation 301 – 303

The class focus will be on applying and use of the principle of animation in 3D animation. Finally, students will be generating an animation short by working through an animation pipeline.

Course objectives

- Students will animate pre-rigged characters through a series of animation exercises
- Students will create a skit or short animated story brief.
- Students will design characters and sculpt a 3D version.
- Students will create all storyboards for an animated story
- Students will animate modeled characters with sensitive use of the 12 principles of animation.
- Students will create an animation short using a professional animation pipeline of pre-production, production, and postproduction.
- Students will participate in feedback sessions and presentations of their work
- Students will meet project deadlines

Motion Design 301 – 303

This is an advanced course for motion design in which students develop more detailed graphics, text, and animation than were explored during the intermediate course. Students will begin this trimester with an exploration into Cinema 4D software, completing 3D motion graphics, which will be used in conjunction with After Effects for the rest of the year. Students will also actively think about and employ the Principles of Design into each project, building on the concepts learned from the previous course.

EXCEPTIONAL MINDS

This trimester will conclude in creating a project that blends 2D and 3D elements into a cohesive whole.

Course Objectives

- Build upon design principles learned in the intermediate motion graphics class to develop more dynamic pieces.
- Utilize advanced functionality in Cinema 4D, Adobe After Effects, Illustrator, Premiere, and other software programs as needed.
- Integrate different motion graphics shots together into a cohesive end product.
- Apply symbols, logos, and other common imagery found in design and communication.
- Create 3D motion graphics animations which utilize Cinema 4D.
- Create visually dynamic pieces using varied duplications of basic geometric primitives and particles.
- Complete two larger projects (a visual music piece and a TV network branding package) along with several exercises.
- Complete a capstone project by the end of spring term. This will include written concepts, designs, animation, and editing for a variety of still and motion elements including logo treatments, a web homepage, motion lower thirds, animated statistics/information, a client interview, character animation, and sound work.
- Meet deadlines for delivery and presentation of work in progress
- Participate in feedback sessions demonstrating the ability to take notes, present their work in progress, and give and accept feedback.