

# Computer Game Design & Development Concentrations

1. **Computer Science** – Allows students to add more CS coursework to their curriculum and continue mastering advanced CS concepts for use in game design/development.

Course			Prerequisite(s)	
1	CS			3
2	CS			3
3	CS			3
4	Free Electives (any 1000-4000 level course not already being used for a requirement)			5

2. **Educational/Serious** – Goes over the concepts of how to create programs for others to use to be able to learn (e.g. educational games).

Course			Prerequisite(s)	
1	CGDD 4313	Designing Online Learning Content & Environments	None	3
2	TCOM 2010	Technical Writing	ENGL 1102	3
Select 2 additional 3000-4000 level TCOM courses with advisor approval				
3	TCOM			3
4	TCOM			3
Free Electives (any 1000-4000 level course not already being used for a requirement)				2

3. **Creative Content** - Focuses on the visual and audio components of games.

Course			Prerequisite(s)	
1	CGDD 4113	3D Modeling & Animation	CS 3305	3
2	MEBU 2270	Entertainment Media Production	Permission (see advisor)	3
Select 2 of the following for your 3 <sup>rd</sup> and 4 <sup>th</sup> concentration courses				
	MEBU 3370	Fundamentals of Audio Production & Technology	MEBU 2270	3
	MEBU 4470	Advanced Audio Production & Technology	MEBU 3370	3
	MEBU 4490	Special Topics	Permission (see advisor)	3
	WRIT 3125	Interactive Narrative & Games	ENGL 1102	3
	TCID 2170	Introduction to Digital Media & Culture	None	3
Free Electives (any 1000-4000 level course not already being used for a requirement)				2

Contact CCSE Academic Advising if you are in, or considering, this concentration to discuss enrollment permission procedure.

4. **Media Production** - Differs from Creative Content in that it covers the underlying systems and concepts used to create media, how the media production process works and how to best manage it.

Course			Prerequisite(s)	
1	MATH 3260	Linear Algebra I	MATH 1190	3
2	CGDD 4113	3D Modeling & Animation	CS 3305	3
3	CGDD 4603	Production Pipeline & Asset Management		3
Free Electives (any 1000-4000 level course not already being used for a requirement)				5

5. **Simulations/Informatics** - For students wanting to go into creating media that relies heavily upon data to create simulation games/software.

Course			Prerequisite(s)	
1	CGDD 4703	Data Modeling & Simulation	STAT 2332	3
Select 3 credit hours of 3000-4000 level coursework from the following prefixes: CSE, CGDD, SWE, CS, IT, Special Topics, Internship, Directed Study as approved by an advisor.				
2				
Free Electives (any 1000-4000 level course not already being used for a requirement)				8

6. **Planning/Management** - For students interested in starting their own game development studio or looking to do indie game development/work with small teams to create games/software.

Select 3 of the following

Course			Prerequisite(s)	
	MGT 3100	Management & Behavioral Science	Coles College Permission	3
	MGT 4185	Technology & Innovation Management	Coles College Permission	3
	ENTR 4122	Venture Analysis	MGT 3100	3
	ENTR 4490	Special Topics	Coles College Permission	3
	SWE 3623	Software Systems Requirements	SWE 3313 & (CSE 2300 or MATH 2345)	3
	SWE 4663	Software Project Management	SWE 3313 & STAT 2332	3
Free Electives (any 1000-4000 level course not already being used for a requirement)				5

7. **Custom Concentration** - Allows students to create their own concentration with the intention of giving them access to other courses that may be useful to them in their CGDD career.

Select 9 credit hours of 3000-4000 level courses with approval of advisor. Students are encouraged to consider CGDD 4400 Directed Study, IT 4490 Special Topics in Information Technology, SWE 4490 Special Topics in Software Engineering, and CSE 4983 CSE Computing Internship

Course			Prerequisite(s)	
1				3
2				3
3				3
Free Electives (any 1000-4000 level course not already being used for a requirement)				5

#### Notes:

- It is best to declare a concentration by the end of your freshman year/beginning of your sophomore year
- When you have made your decision, you will declare your concentration in Owl Express:
  - Owl Express -> Student Records -> "Declare or Change Major/Minor"
- Concentration courses are seasonal, meaning they are not offered every semester (e.g. a course may only be offered in the fall semester and not the spring)
- Utilize the [Course Forecast](#) for a tentative prediction of when courses will be offered
- Meet with your advisor if you have any questions!