Effat University
Computer Science

جامعة عفت
EFFAT UNIVERSITY

Study Plan (Game Development Concentration):

Term	Course Code	Course Title	Pre-Requisite Courses	Credit Hours
Semester 1	CS 1001	Introduction to Computing	Co-requisite GCS 182	2-2-3
	GMTH 181E	Pre-Calculus for Engineering	Placement	3-0-3
	GCS 182	Principles of Computing, Data and Algorithms	None	2-2-3
	GENG 131	Advanced English Language Skills & Critical Thinking	Placement	3-0-3
	GISL 121	Islam and Civil Society	None	3-0-3
	Choice	Social Structure and Global Awareness	None	2-2-3
		Total		**18**
Semester 2	CS 2132	Object Oriented Programming	GCS 182	2-2-3
	MATH 101	Calculus for Engineers I	GMTH 181E	3-0-3
	Choice	English Language II	GENG131	3-0-3
	CS 1021	Computer Architecture and Organization	CS 1001	2-2-3
	GSTA 181	Introductory Statistics (Quantitative Reasoning)	None	3-0-3
	GARB 131	Arabic Language	None	3-0-3
		Total		**18**
Semester 3	CS 2071	Database Systems	GCS 182	2-2-3
	CS 2011	Data Structures and Algorithms	CS 2132	2-2-3
	GETH121	Social Structure and Global Awareness (Technology Ethics)	None	3-0-3
	MATH 201	Calculus for Engineers II	MATH 101	3-0-3
	CS 2091	Computer Networks	CS 1021	2-2-3
	Choice	Foreign Languages & Communication	None	1-2-2
	GPHY 171	Physical & Environmental Sciences (Foundation in Physics)	None	2-2-3
		Total		**20**
Semester 4	CS 2111	Web Application Development	CS 2071	2-2-3
	CS 3151	Software Engineering	CS 2011	2-2-3
	CS 3081	Artificial Intelligence	GSTA 181 & CS 2011	2-2-3
	STAT 201	Statistics for Computing	GSTA 181 and MATH 201	3-0-3
	CS 3067	Information and Cyber Security	CS 1001	2-2-3
	GSEM 100	Research Seminar	NONE	1-2-2
	Choice	Foreign Languages & Communication	None	1-2-2
		Total		**19**
Semester 5	Choice	Basic Science Elective	-	3
	MATH 203	Discrete Mathematics	MATH 201	3-0-3

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	CS 3012	Algorithm Analysis	CS 2011	2-2-3
	CS 3101	Operating Systems	CS 1021 & CS 2011	2-2-3
	CS 3042	Computer Graphics and Animation	CS 3151	2-2-3
	GSEM 201	Research, Innovation and Intellectual Property	GSEM 100	3-0-3
Total				**18**
Semester 6	Choice	Creative Arts and Cultural Studies		3
	MATH 307	Linear Algebra	MATH 201	3-0-3
	CS 3072	Data Science	CS 2071	2-2-3
	CS 4176	Senior Project 1	CS 3151	2-0-2
	CS 4044	Game Engine Development and Tools	CS 3151	2-2-3
	CS 4045	Programming for Games	CS 3151	2-2-3
Total				**17**
Summer	CS 3176	Coop Training I	Junior Level	0-0-3
Total				**3**
Semester 7	CS 3177	Coop Training II	CS 3176	0-0-6
Total				**6**
Semester 8	CS 4177	Senior Project 2	CS 4176	1-2-2
	CS 4121	Parallel Processing and Computing	CS 3101	2-2-3
	MATH 310	Numerical Analysis	MATH 201 & CS 2132	3-0-3
	CS 3133	Programming Languages	CS 2132	2-2-3
	CS 3043	Game Design and Development	CS 3151	2-2-3
	CS 4046	Advanced Game Development and Deployment	CS 4045	2-2-3
Total				**17**

Curriculum Development and Review Office