COURSE OUTLINE

CAR300

Prepared: Mark Allemang   Approved: Corey Meunier

Course Code: Title	CAR300: APPLIED RESEARCH PROJECTS
Program Number: Name	2091: COMPUTER - PROG/ANAL
Department:	COMPUTER STUDIES
Semester/Term:	17F
Course Description:	This course is linked to the colleges Applied Research Centre that brings together Sault Colleges faculty, staff and students and local and regional enterprises to participate in applied research projects that provide real-world solutions to real-world problems, enabling them to create or improve products and services and compete in the global marketplace. Applied research deals with solving real-world problems that usually have direct commercial application. In applied research, activities such as prototype development, feasibility studies, clinical trials, technical consultation and problem solving are often involved. Working on Applied Research Projects will lead the students to help, solve technical problems, adapt new technologies for the marketplace, develop prototypes and new or improved products and processes, enhance products, processes, and / or services, test/evaluate and perform proof of concept study, undergo incremental and larger-scale innovation.
Total Credits:	5
Hours/Week:	3
Total Hours:	45
Prerequisites:	CSD221
Essential Employability Skills (EES):	#1. Communicate clearly, concisely and correctly in the written, spoken, and visual form that fulfills the purpose and meets the needs of the audience. #2. Respond to written, spoken, or visual messages in a manner that ensures effective communication. #3. Execute mathematical operations accurately. #4. Apply a systematic approach to solve problems. #5. Use a variety of thinking skills to anticipate and solve problems. #6. Locate, select, organize, and document information using appropriate technology and information systems. #7. Analyze, evaluate, and apply relevant information from a variety of sources. #8. Show respect for the diverse opinions, values, belief systems, and contributions of others. #9. Interact with others in groups or teams that contribute to effective working relationships and the achievement of goals.

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	#10. Manage the use of time and other resources to complete projects. #11. Take responsibility for ones own actions, decisions, and consequences.
Course Evaluation:	Passing Grade: 50%, D
Other Course Evaluation & Assessment Requirements:	Grade Definition Grade Point Equivalent A+ 90 – 100% 4.00 A 80 – 89% B 70 - 79% 3.00 C 60 - 69% 2.00 D 50 – 59% 1.00 F (Fail) 49% and below 0.00 CR (Credit) Credit for diploma requirements has been awarded. S Satisfactory achievement in field /clinical placement or non-graded subject area. U Unsatisfactory achievement in field/clinical placement or non-graded subject area. X A temporary grade limited to situations with extenuating circumstances giving a student additional time to complete the requirements for a course. NR Grade not reported to Registrar`s office. W Student has withdrawn from the course without academic penalty.

Evaluation Process and Grading System:

Evaluation Type	Evaluation Weight
Project Execution	15%
Project Presentation	15%
Project Proposal	10%
Project Reports	20%
Weekly Progress Reports	40%

Course Outcomes and Learning Objectives:

Course Outcome 1.

Create a Project Requirements Specification

Learning Objectives 1.

Create Service Request

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Develop the problem statement
Establish priorities
Establish a method to study the present system
Organize the products of the study
Review existing procedures
Observing current operations

Course Outcome 2.

Create a Functional Specification

Learning Objectives 2.

Define WHAT the system will do as follows:
Perform interviews and walkthroughs
Define the Scope of the system.
Define the prototype consisting of a description of the functions
as well as examples screens/panels

Course Outcome 3.

Create a System Design Specification

Learning Objectives 3.

Define HOW the system will be built as follows:
Build prototype: may contain: reports, screens, functions, controls and any interfaces/interface devices.
Define the database structure and contents, from table definitions and keys identified, to attributes.
Ensure data normalization
Describe types of data validation and verification techniques
Identify different reporting types
Identify output formats
Create the required windows interfaces.
Design any required coding techniques, code each object and any functions and modules.
Develop and enter test data

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Establish version controls

Course Outcome 4.

Perform project management and provide any ancillary materials

Learning Objectives 4.

Establish documentation procedures, and creation of user guide
Identify the hardware the system will eventually reside on.
Monitor team member progress.
Establish milestones and monitor progress.
Train end users
Ensure operating acceptance
Establish responsibilities for making revisions.
Establish backup procedures.

Date:	Friday, September 1, 2017
	Please refer to the course outline addendum on the Learning Management System for further information.