

# CLARKSON UNIVERSITY

Thesis Title

A Thesis By

**Ryan J. Lewis**

Department of Computer Science

Advisor

Dr. Christopher Lynch

Chair, Computer Science & Mathematics

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for the degree of  
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Computer Science

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Date

Dean

The undersigned have examined the thesis entitled

**Thesis Title**

presented by Ryan Lewis,

a candidate for the degree of MASTER OF SCIENCE,

and hereby certify it is worthy of acceptance.

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Date

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Dr. Christopher Lynch, Advisor

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Dr. Kathleen Fowler

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Dr. David Wick

## Abstract

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# Chapter 1

## Introduction

### 1.1 Motivation

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### 1.2 Research Objectives

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### 1.3 Methodology

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# Chapter 2

## Software Requirements

### 2.1 Overview

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#### 2.1.1 Perspective

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#### 2.1.2 Features

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#### 2.1.3 User Classes

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#### 2.1.4 Operating Environment

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### 2.2 System Features

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### **2.2.1 User Tracking**

Description

Action/Response Sequence

Functional Requirements

### **2.2.2 Assessment**

### **2.2.3 Quiz**

### **2.2.4 Knowledge Pathway**

### **2.2.5 Attendance**

### **2.2.6 Schedule**

## **2.3 Interfaces**

### **2.3.1 User Interfaces**

### **2.3.2 Software Interfaces**

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## **2.4 Non-functional Requirements**

### **2.4.1 Availability**

### **2.4.2 Security**

### **2.4.3 Usability**



# Chapter 3

## Software Design

### 3.1 Architecture

#### 3.1.1 Design Reasoning

### 3.2 Object Design

#### 3.2.1 User

Reasoning

Usage

Model

### 3.3 Object Interaction

### 3.4 User Interface Design

### 3.5 Benefits

### 3.6 Assumptions

### 3.7 Known Issues

# Chapter 4

## Usability

4.1 Test Topics

4.2 Surveys

4.3 Reports

4.4 Significance

# Chapter 5

## Summary and Conclusions

### 5.1 Conclusions

### 5.2 Future Work

# Appendix A

## User Manual

# Appendix B

## Administrator Manual