

## Course Syllabus/Outline Development Form

### 1. NAME OF COURSE:

ITSE 6081 –Software Internationalization Enablement and Coded Character Sets

### 2. NUMBER OF CLOCK HOURS:

8 hrs

### 3. COURSE DESCRIPTION:

This course will introduce the key concepts of coded character sets and present programming techniques commonly used during the software internationalization enablement process. This course is intended for software developers, testing engineers and globalization project managers. To make the best out of the coding examples, prior exposure to software programming languages, such as C++ and Java, is recommended.

### 4. COURSE OBJECTIVES:

- a. Discuss key globalization requirements and introduce the *single version world-wide simultaneous release* software development model
- b. Introduce the concept of language packs and discuss how they can reduce localization costs
- c. Present common internationalization unsafe coding practices and discuss recommended solutions
- d. Understand the principles of character encoding and why data conversions are necessary

### 5. RATIONALE:

In today's fast paced software industry, understanding key globalization requirements, in particular the concept of language packs and the *single version world-wide simultaneous release* development model, can help localization professionals reduce development costs and capture market share.

Understanding character encodings and internationalization safe coding practices help developers write code that is ready to support translations. Understanding character encodings can also help testing engineers improve the quality of their job by targeting test cases.

### 6. REQUIRED MATERIALS:

Students will be provided with all reading material by the instructor.

## 7. EVALUATION:

1. Class participation
2. Attendance or Test score

## 8. COURSE OUTLINE:

<b>Topic</b>	<b>Sub-topics</b>	<b># of hours</b>
1. Globalization model	1.A Basic globalization requirements 1.B Internationalization check-list	1
2. Language Packs	2.A Concept and Advantages 2.B Implementation and testing	1
3. Internationalization-safe Coding practices	3.A Java Resource Bundles 3.B C message Catalogs 3.C Shell scripts	3
4. Coded Character Sets	4.A Basic concepts 4.B SBCS and DBCS encodings 4.C Unicode 4.D Data conversions	3
		<b>8 total</b>