



**Nevada System of Higher Education  
Oracle/PeopleSoft Implementation  
iNtegrate Project Charter**

**September, 2008**



## PROJECT CHARTER

# Version Control

**Document Title:** *Nevada System of Higher Education iNtegrate Project Charter*

- Authors:**
- Melisa Choroszy, Project Lead, UNR
  - Jim Carson, Project Lead, UNR
  - Christine Hernandez, Co-Project Lead, TMCC
  - Chris Winslow, Co-Project Lead, TMCC
  - Ginger Holladay-Houston, Project Lead SCS/NSHE
  - Patricia Ring, Project Lead, NSC
  - John Bearce, Project Lead, CSN
  - Lora McCarty, Project Lead, GBC
  - Lynne Personius, Project Lead, UNLV
  - Eric Thornton, Project Lead, WNC
  - Robyn Render, Project Director, iNtegrate
  - Todd McElroy, CedarCrestone Director

## Revision History

DATE	REVISION	BY	PAGE(S)
07/08/2008	Initial Assignments	Management Team	Section 1.0
07/09/2008	Initial Assignments	Management Team	Section 1.0-4.1.1
07/10/2008	Initial Assignments	Management Team	Section 1.0-4.3.1
07/14/2008	Initial Assignments v4.1	Management Team	Section 1.0-4.3.1
07/15/2008	Initial Assignments v4.2	Management Team	Section 1.0-9.2
07/16/2008	Initial Assignments v4.3	Management Team	Section 1.0-9.2
07/16/2008	Initial Assignments v4.4	Management Team	Section 1.0-9.2
07/17/2008	Initial Assignments v4.5	Management Team	Section 1.0-9.2
07/17/2008	Initial Assignments v4.6	Management Team	Section 1.0-9.2
07/20/2008	Initial Assignments v4.7	Management Team	Section 1.0-9.2
07/21/2008	Initial Assignments v5.0	Management Team	Section 1.0-6.1.5
7/22/2008	Initial Assignments v6.0	Management Team	Section 3.0-7.5.2
7/23/2008	Initial Assignments v7.0	Management Team	Section 5.1
7/24/2008	Initial Assignments v8.0	Management Team	Section 2.0-8.1.2
7/30/2008	Initial Assignments v9.0	Management Team	Section 2.0-11.0
8/06/2008	Review v10.0	Management Team	All
8/07/2008	Review v11.0	Management Team	All



## PROJECT CHARTER

8/13/2008	Review v12.0	Distribution	All
8/22/2008	Review v13.0	Institution Review	All
8/25/2008	Review v14.0	Distribution	All
8/26/2008	Review v15.0	Institution Review	All
9/15/2008	Review v16.0	Institution Review	All
9/30/2008	Final		All

# Table of Contents

Executive Summary ..... 1

    Purpose ..... 1

    Vision ..... 1

    Project Goals ..... 1

    Scope ..... 1

    Timeline ..... 2

    Project Approach ..... 4

    Data ..... 7

    Apply local knowledge ..... 8

    Accelerate decision making ..... 8

    Knowledge Transfer ..... 9

Acknowledgment ..... 9

1.0 Foundation ..... 10

    1.1 Problem Statement ..... 10

    1.2 Vision ..... 11

    1.3 Mission ..... 11

    1.4 Project Goals ..... 11

    1.5 Critical Success Factors ..... 13

    1.6 Assumptions ..... 15

2.0 Project Scope ..... 17

3.0 Project Facilities and Technical Environment ..... 20

    3.1 Technical Environment ..... 20

        3.1.1 Infrastructure Support ..... 20

        3.1.2 Software Support ..... 20

    3.2 Project Facilities ..... 20

4.0 Project Management and Control ..... 22

    4.1 Project Plan Maintenance ..... 22

        4.1.1 Project Plan Availability ..... 22

    4.2 Meeting Management ..... 22

        4.2.1 Project Meetings ..... 22

    4.3 Project Reporting ..... 24

- 4.3.1 Weekly Status Reports ..... 24
- 4.3.2 Monthly Status Reports ..... 24
- 4.4 Project Budget Management ..... 25
  - 4.4.1 Budget/Expense Approval ..... 25
  - 4.4.2 Budget Status Reports and Review..... 26
- 5.0 Project Governance Structure ..... 27
  - 5.1 Roles, and Responsibilities..... 29
- 6.0 Project Processes ..... 37
  - 6.1 Standard Procedures ..... 37
    - 6.1.1 Phase 1: Project Planning and Discovery ..... 37
    - 6.1.2 Phase 2: Analysis and Design..... 39
    - 6.1.3 Phase 3: Configure and Development..... 40
    - 6.1.4 Phase 4: Testing and Training..... 43
    - 6.1.5 Phase 5: Deploy and Optimize ..... 45
  - 6.2 Issue and Risk Resolution and Change Control Processes ..... 45
    - 6.2.1 Capturing, Monitoring, and Communicating Issues..... 45
    - 6.2.2 Escalating Issues..... 46
  - 6.3 Documentation Management ..... 46
    - 6.3.1 Naming Conventions ..... 48
    - 6.3.2 Documentation Lifecycle ..... 49
- 7.0 Communication Strategy ..... 51
  - 7.1 Communication Goal and Objectives ..... 51
  - 7.2 Approach to NSHE-wide Communication..... 52
    - 7.2.1 Critical Communication Success Factors ..... 52
    - 7.2.2 Leadership Involvement ..... 53
  - 7.3 Communication Plan and Effective Practices ..... 53
    - 7.3.1 Leveraging Communication Efforts ..... 53
    - 7.3.2 Internal Communication Effective Practices ..... 53
    - 7.3.3 External Communication Effective Practices..... 54
  - 7.4 iNtegrate Student Information System Project Messaging ..... 54
  - 7.5 Communication Priorities..... 55
    - 7.5.1 Performance Indicators ..... 56
    - 7.5.2 Approval Process ..... 56



## PROJECT CHARTER

7.5.3	Communication Schedule.....	56
8.0	Data Conversion Strategy .....	58
8.1.	Conversion Scope .....	58
8.1.1	Data To Be Converted.....	58
8.1.2	Data Conversion Timeline .....	58
8.1.3	Conversion Strategy .....	58
9.0	Testing Strategy .....	60
9.1	Testing Processes .....	60
9.1.1	Unit Testing .....	60
9.1.2	System Integration Testing.....	60
9.1.3	Customization Testing .....	60
9.1.4	Performance Testing .....	61
9.1.5	Acceptance Testing .....	61
9.2	Participants.....	61
10.0	End User Assistance Strategy .....	62
10.1	End User Documentation Services .....	62
10.1.1	Documentation Objectives.....	62
10.1.2	Documentation Approach .....	62
10.1.3	End Users' Documentation Needs .....	62
10.1.4	Documentation Development .....	63
10.1.5	Maintenance and Distribution .....	63
10.2	Training Strategy.....	63
10.2.1	Training Objectives.....	63
10.2.2	Training Approach .....	64
10.2.3	Training Processes.....	64
10.3	Support Services.....	65
10.3.1	Help Desk and Support Service Objectives.....	65
10.3.2	Approach .....	65
11.0	Post-implementation Strategy.....	66

# EXECUTIVE SUMMARY

## Purpose

The Project Charter provides the major goals and objectives, strategies, and standards for the iNtegrate Project. This project will implement the PeopleSoft Campus Solutions (CS) software at Nevada System of Higher Education. The charter defines the following standards and operating procedures for the project:

- Organizational structure
- Project team roles and responsibilities
- Project management tools and standards
- Issue resolution and decision approval processes
- Communication, documentation and training strategies

## Vision

The new Student Information System will transform how and when students communicate with the colleges and universities of the Nevada System of Higher Education and how faculty and staff conduct the necessary business of meeting students' needs for accurate information, timely decisions, and informed choices that lead to student success.

(Adapted from: Student Services Module Task Force: THE TRANSFORMATION OF STUDENT SERVICES UNDER THE NSHE INTEGRATE PROJECT, February 28, 2007)

## Project Goals

1. Complete the project on time and within budget.
2. Position Nevada System of Higher Education's (NSHE) administrative applications to support significant growth and expansion.
3. Optimize the delivered capabilities of the software to adapt business processes, improve productivity, personalize service, enable self-service, and provide access to services.
4. Implement the most upgrade-compatible system feasible and minimize total cost of ownership.
5. Implement a reliable, secure, and scalable technical infrastructure.
6. Utilize student services performance measures to evaluate the impact of student services improvements resulting from the new Student Information System.

## Scope

The scope of the Integrate project includes the implementation of selected modules of PeopleSoft Campus Solutions system including Recruiting and Admissions, Student Records, Academic Advising, Financial Aid and Student Financials. A complete list of modules is included in Section 2.0 and is reflected in the project timeline. Integrate will implement version 9.0 which includes significant self-service capabilities, flexible configuration settings and reporting capabilities, eliminating the need to implement customizations and shadow systems. Additionally, the Universal I.D. and Data

Warehouse solutions will be implemented. The project will serve the needs of faculty and staff in conducting the necessary business of meeting students' needs for accurate information, timely decisions, and informed choices that lead to student success. Interfaces to third-party and NSHE software that will have to share data such as the Financial and Human Resources systems will be accommodated.

**Timeline**

The project was approved by the Nevada Board of Regents at their meeting on April 3, 2008. The functionality of the systems identified above will go into production in phases through 2011, as illustrated in the diagram below:

2008												2009												2010												2011														
												<b>Implementation Phases:</b>																																						
Plan			Design			Configure			Test/Train			Deploy																																						
<b>Collaborative Pilot Wave</b>																																																		
																								Adm. Live																										
																								F.A. Live																										
																								Reg. Live																										
																																				<b>Deployment Phases:</b>														
																																				Design/Configure Deploy						Test/Train								
																																				<b>Five-institution Second Wave</b>														
																																				<b>(April 2010 – July 2011)</b>														
																																				Adm. Live														
																																				F.A. Live														
																																				Reg. Live														

## **All Institutions**

<b><i>Critical Milestone</i></b>	<b><i>Date</i></b>
Academic Structure Design Published	10/1/08
Course Catalogue Data Mapping Deliverable	1/15/09
Bio/Demo Conversion	3/1/09
Portal Installation Complete	5/1/09

## **Phase 1 – Pilot Wave**

<b><i>Critical Milestone</i></b>	<b><i>Date</i></b>
Production Use – Admissions for Pilot institutions	10/1/09
Future Term Class Schedule Initiated	10/1/09
Financial Aid ISIRs Loaded	2/1/10
Production Use - Student Enrollment/Course Registration	3/1/10
Financial Aid Award Letters Generated	4/1/10
Production Use - Student Payments	5/1/10
Production Use - Academic Transcripts	8/1/10

## **Phase 2 – Second Wave**

The dates listed below apply to each Second Wave institution. As part of the Plan and Discover Phase, the Parties will determine which NSHE institutions will implement the Student Information System in which sequence.

<b><i>Critical Milestone</i></b>	<b><i>Date</i></b>
Production Use – Admissions	10/1/10
Future Term Class Schedule Initiated	10/1/10
Financial Aid ISIRs Loaded	2/1/11
Production Use – Student Enrollment/ Course Registration	3/1/11
Financial Aid Award Letters Generated	4/1/11
Production Use – Student Payments	5/1/11
Production Use – Academic Transcripts	8/1/11

(Source: CedarCrestone, Inc.)

## **Project Approach**

CedarCrestone consultants will work collaboratively with NSHE staff in all aspects of the implementation to optimize the value of CedarCrestone's expertise and experience, facilitate the transfer of CedarCrestone knowledge to NSHE staff, and to complete all tasks required for implementation through project acceptance.

Software modules will be moved into production use consistent with the student life cycle for each NSHE institution. For each institution, module "go-live" dates will begin with admissions one year in advance, the course catalog creation for the next year, financial aid, and student registration during the Spring for courses the upcoming Fall, billing, grade processing, and finally transcript production.

A collaboration of all NSHE institutions will occur during the pilot wave, whereby all institutions participate in the design and solutions.

Design sessions will be conducted as collaborative teams – Each institution will have their own teams, together making up the collaborative group. Pilot institutions will have larger teams, with at least 2 members from a non-pilot. Module core teams will address each of the components of the PeopleSoft system

AD - Admissions and Recruitment

FA – Fin Aid

SF – Student Financials

SR - Student Records

AA – Degree Audit/Advising

In addition there will be collaborative teams working on academic structure and campus community, foundational components of the PeopleSoft system.

The Student Information System Project has two Phases. Phase 1, known as the "Pilot Wave," is comprised of two (2) institutions, followed by the second Phase, known as the "Second Wave," comprised of deployment at the remaining five (5) institutions.<sup>1</sup> The Pilot Wave institutions will include both a community college, Truckee Meadows Community College, and a university, University of Nevada, Las Vegas, with participation required from the five remaining institutions (College of Southern Nevada, Great Basin College, Nevada State College, University of Nevada, Reno, Western Nevada College) during the configuration and design sessions.

The Pilot Wave will commence on July 7, 2008 and will be completed by September 30, 2010. CedarCrestone will initiate the Second Wave, comprised of the remaining five (5) NSHE institutions, in April 2010. The Second Wave will be completed by September

---

<sup>1</sup> The Pilot Wave and Second Wave are each a "Phase." Reference in the Statement of Work to Phase I, II, III, IV and V (Roman numeral, and not numeric, designations) refer to the stages of CedarCrestone's Propel Methodology.

2011, and Project Acceptance will be completed by October 2011. The overall timeline for the Student Information System Project is thirty-eight (38) months.

In earlier project planning, during the request for proposals and developing statements of work, contract negotiations and readiness assessments, the NSHE institutions were put into two categories: Pilot institutions – TMCC and UNLV and Non-Pilot institutions – CSN, UNR, GBC, NSC and WNC. DRI does not have student enrollment but will participate on a limited basis in those area that may have implications for human resources and finance. As the consultants and the Project Office considered the details and logistics of the project approach, it became evident that all institutions need to participate in activities occurring through all phases of the project. Thus, the Project Implementation Team, as of the drafting of this charter refers to non-pilot institutions as co-pilots.

## **PRINCIPLES**

*The following principles support the Vision of the Student Information System and should guide the decisions related to implementation. When limited resources necessitate choices among desired features, priorities can be established by the iNtegrate Student Affairs Work Group based on these principles.*

*We propose that all of these broad principles be followed to guide implementation decisions. However, in a real world, we know we may not be able to create a complete module on the day it goes live. As decisions are required during the implementation of the Student Information System, they should be made*

- (a) in a timely manner with a goal of keeping this project moving forward,*
- (b) with a sense of urgency to make sure antiquated processes are replaced,*
- (c) with a focus on best serving students,*
- (d) based on the following principles, and*
- (e) in consultation with institutional students, faculty, and staff.*

### **Student Services – Student Perspective**

1. Service to the student as the consumer of our educational product will guide the construction and design of the Student Information System.
2. All transactions related to students, classes, and academic records will be integrated into the new Student Information System. These transactions will be easily accessible and will enable students to conduct most business with the NSHE institutions on line. Transactions will be user-guided interactive processes allowing or involving the exchange of information or instructions between the student and the computer.
3. There will be “24/7” real-time access for all users.

4. A personalized, single point of access to information, transactions, and applications for students, faculty and staff, according to their roles and preferences will be provided.
5. Navigation through the Student Information System must be intuitive as well as aesthetically pleasing. The technologies and transactions that students use most often will be “up front” at the site of entry: making navigation convenient for students. The Student Information System will be designed to guide students to successful completion of their academic goals.
6. Student service functions, including course registration, payment of fees, and financial aid, will be student-friendly and better serve students by streamlining processes and eliminating duplicate efforts, supporting seamless transfer across the NSHE, and improving communication between faculty, staff, and students.
7. There will be a single universal identity for all NSHE students, including the creation of a single ID that will be used by all institutions in transactions for a particular individual.
8. The Student Information System will be designed to serve the needs of all students, including students with disabilities, international students, students taking non-credit courses, and nontraditional students.
9. Similarities and differences in institutional policies and procedures will be addressed during implementation and the Student Information System will be designed to lessen the impact of differences on students, faculty, and staff. Students will be informed as soon as possible of the differences that they may encounter when co-enrolling, transferring, or registering for continuing education, extended studies, or distance education courses.

#### **Student Services – Faculty and Staff Perspective**

10. The Student Information System will maximize meeting the needs of institutions within a context of the necessity to preserve and promote a common set of transactions and processes throughout the NSHE.
11. The Student Information System will be sufficiently flexible to accommodate the missions of different types of institutions within NSHE.
12. The Student Information System will change practice through technological innovation and support. Process re-engineering and electronic work flow will result in greater efficiencies and better services, and the Student Information System will allow faculty and staff to redeploy resources to enhance their efficiency and effectiveness.
13. If particular Board of Regents’ policies prevent effective implementation of a well-functioning Student Information System, those policies will be re-examined and potential changes presented to the Board of Regents for consideration.
14. Effective advising of students by faculty and staff will be enhanced by instant access to correct information on individual students, backup support for information related to degree and program requirements, NSHE transfer information, and other data as needed for proper academic advisement.
15. The Student Information System will support academic and institutional planning to better meet students’ needs.

16. Transition planning and training will help faculty and staff to understand and utilize the full potential of this product.

## Data

17. All common data elements and data definitions will be established and maintained for the purposes of developing higher education policies and institutional budgets, measuring institutional and NSHE performance for accountability purposes, tracking students across the NSHE, and longitudinal studies of students to enhance academic performance.
18. Data will be shared across functional areas.
19. Data will support students across institutional boundaries.
20. Meaningful, consistent, and timely data will be available to end users at each institution, and effective data reporting tools will be in place to improve services to students and to support better management decisions.

(Adapted from: Student Services Module Task Force: THE TRANSFORMATION OF STUDENT SERVICES UNDER THE NSHE INTEGRATE PROJECT, February 28, 2007)

NSHE will also follow these best practices for the iNtegrate Project to the best of its ability:

- **Best Practice 1** - Executive Management endorses and supports the iNtegrate Project by providing adequate funding and prioritization.
- **Best Practice 2** – Executive Management will remain actively involved throughout the implementation.
- **Best Practice 3** – The iNtegrate Project implementation responsibilities should be shared between all NSHE institutions and NSHE System Administration.
- **Best Practice 4** – Executive Management should be cognizant about NSHE's ability to adapt the organizational changes that occur when the new software is implemented.
- **Best Practice 5** – A project director will be assigned full-time to oversee the NSHE iNtegrate project implementation.
- **Best Practice 6** –The project team composition will represent all functional areas where the software will be implemented.
- **Best Practice 7** – Project teams should be full time on the project. Normal job responsibilities should be reassigned to other employees for the project duration whenever possible. Backfill budget should be provided for NSHE institutions providing project staff.
- **Best Practice 8** – The NSHE Implementation team will provide proactive onsite support for key offices during go-lives.
- **Best Practice 9** – Separate dedicated work environments specifically for the project teams should be designated. Both functional and technical project staff should be co-located.

- **Best Practice 10** – All employees who will implement and use the Student Information System software will receive training.
- **Best Practice 11** – It is often necessary for an institution to change its administrative processes to fit the software. NSHE will implement the PeopleSoft software out of the box or will re-engineer business processes before changing the software.
- **Best Practice 12** – CedarCrestone consultants will be used to facilitate implementation efforts and perform knowledge transfer. NSHE will retain ownership and control of the implementation process.
- **Best Practice 13** – Implementation information should be continuously communicated to the NSHE community using multiple methods. Project team members will have regular meetings with their functional offices to report back and share project information.
- **Best Practice 14** - Conversion of data from the old software system to the new and identifying and implementing reporting needs will begin early in the implementation process.

### **Apply local knowledge**

By identifying key stakeholders in all service areas and involving them in the analysis and design of software and business processes that will affect their respective areas, we will be able to develop a system and revise our processes in ways that meet our business needs.

NSHE is partnering with external consultants in a collaborative approach that will combine the external consultants' implementation methodology and expertise in PeopleSoft with the knowledge and expertise of key technical and functional staff in NSHE's current information systems and business processes.

(Adapted from: Student Services Module Task Force: THE TRANSFORMATION OF STUDENT SERVICES UNDER THE NSHE INTEGRATE PROJECT, February 28, 2007)

### **Accelerate decision making**

Key stakeholders who collaborate on analysis and design work in areas of the system in which they have a common interest will be empowered to make decisions about routine transactions and processes so that decisions do not get bogged down in layers of bureaucracy.

Issues involving multiple service areas, potential changes to policy, or other complexities, will need to be elevated to the newly created Student Affairs Workgroup also referred to as Module Leads. This group is comprised of key institution and System student service representatives appointed by institution Vice Presidents. This group also participates in the project implementation activities.

Unresolved issues will be advanced to the Student Services Module (SSM) Task Force. The Task Force consists of directors and executive administration from NSHE's various institutions that have a vested interest in the new system. They will help make the decisions that will have a direct impact on the System.

(Source: iNtegrate Governance & Project Structure Revised - BOR presentation)

## **Knowledge Transfer**

Team members who fully participate in the implementation of the student project will learn how to set-up, use and maintain the software. iNtegrate Module teams will be paired with CedarCrestone consultants, so that key technical and functional personnel from the institutions and SCS will be learning the PeopleSoft system and operating procedures as they implement the software. CedarCrestone's Propel Methodology is designed to transfer knowledge to the team members who fully participate in the project. By the end of the project these iNtegrate personnel can assume a lead role in training their co-workers and operating the system without the aid of consultants. Formal technical training, typically general PeopleTools training, will be provided to the technical team members. Some technical team members will attend more specialized training courses.

## **Acknowledgment**

The iNtegrate Project is a system-wide initiative of the Nevada System of Higher Education (NSHE) to implement PeopleSoft student services technology. The Nevada System of Higher Education is comprised of two universities, a state college, four community colleges, and a research institute. NSHE is governed by an elected Board of Regents. Working on behalf of the Board, the Chancellor's Offices (north and south), also referred to as System Administration, develops NSHE strategy and implements Board policies.

Through the collaborative efforts and resources of each of the NSHE components, the project was launched in July 2008, with a completion date of Fall 2011. This project was made possible through the support of the students of the Nevada System of Higher Education, the Board of Regents and the Nevada State Legislature.

The NHSE/CedarCrestone implementation team would like to acknowledge the ongoing support and leadership of the many individuals involved; for the many tireless hours; and the variety of resources committed to making the iNtegrate Project a success.

# 1.0 FOUNDATION

The purpose of this section is to clearly identify NSHE's vision and strategic direction that are driving this project, as well as the problems or obstacles the project will help solve. This section will answer these fundamental questions: Why are we doing this project? What effect do we want it to have on NSHE operations and customer service?

## 1.1 Problem Statement

(Source: iNtegrate Vendor Decisions Meeting - BOR 4/3/2008)

NSHE has identified several problem areas within the current Student Information System (SIS).

Inability to address today's student needs:

- Prospective/current students expect easy to use and full function student services.
  - They want sophisticated and interactive systems that will fully meet their needs.
  - Prospective students begin considering schools through a school's recruiting website-difficult to access/use recruiting tools send them the wrong message.
- Students need easy to access and accurate information in order to make timely decisions and informed choices that lead to student success.
- Students need one unique ID that can travel with them across the System and allow seamless transfer between NSHE institutions.
- Easy to access / easy to analyze management information.
- Our staff need meaningful, consistent, and timely data on each institution, the ability leverage effective data reporting tools to proactively improve services to students and to support better management decisions.

Inability to address the need to meet enrollment and retention goals:

- As NSHE enrollment and retention goals continue to miss projections, it is critical that NSHE leverage modern web-based technology to help it meet these goals

Need to improve business processes:

- iNtegrate will improve business practices through technological innovation and support. Process re-engineering and electronic work flow will result in greater efficiencies and better services.

Need to replace aging technology:

- The current SIS is over 18 years old and is based on old technology that is unable to keep up with the rapidly growing demands of our technology-literate students and staff. Due to its older technology base, it is increasingly difficult to:
  - Hire/Retain staff with the older skills necessary to maintain or enhance the SIS.

- Interface the SIS to other systems and tools. For example, the current Focus reporting tool can not be upgraded since that would break its integration with SIS.
- Given the age of the system, it is virtually impossible to make significant and substantive changes to support the growing students and staff.

Need to mitigate a growing risk to NSHE's ability to serve students:

- The install base of the SIS vendor is rapidly shrinking (estimated to be less than 10 schools without NSHE) and the vendor could soon stop supporting the system.
- Vendor updates are critically important because of the constant need for mandatory financial aid regulatory updates.
- The vendor has imbedded older interface software that is also going out of support.
- It will take at least 3 years to replace our SIS system –the old system may not remain supported that long.

## **1.2 Vision**

The new Student Information System for the iNtegrate Project will transform how and when students communicate with the colleges and universities of the Nevada System of Higher Education and how faculty and staff conduct the necessary business of meeting students' needs for accurate information, timely decisions, and informed choices that lead to student success.

(Adapted from: Student Services Module Task Force: THE TRANSFORMATION OF STUDENT SERVICES UNDER THE NSHE INTEGRATE PROJECT, February 28, 2007)

## **1.3 Mission**

The iNtegrate mission is to implement the PeopleSoft system, within the time and budget prescribed, in such a way that it will (1) improve service to students and employees, (2) enrich the learning and working environment, and (3) provide the greatest long-term value to each institution. This will be accomplished through a collaborative effort amongst all NSHE institutions.

## **1.4 Project Goals**

To achieve our mission, we have defined specific project goals, and for each goal, we have included examples of concrete guidelines that will enable us to meet these goals.

(Source: iNtegrate Student System Collaboration Planning (MTC) – 03/07)

### **1.4.1 Complete the project on time and within budget.**

The following guidelines will help us to meet this goal:

1. Upfront planning. Develop a milestone-based project plan to optimize resources.

2. Manage the project to the project plan, regularly tracking project status against milestones and acting on potential problem areas before they delay the project.
3. Establish and follow a well-defined issue resolution process that includes time limits for escalating and deciding on issues.

#### **1.4.2 Position NSHE's administrative applications to support significant growth and expansion.**

The following guidelines will help us to meet this goal:

1. Emphasize self-service.
2. Learn the capabilities of the new software.
3. Plan for non-credit and credit students, and non-credit and credit offerings when configuring the system.
4. Plan for multi-institution and virtual locations.
5. Plan for NSHE BOR initiatives/organizations.

#### **1.4.3 Optimize the delivered capabilities of the software to adapt business processes, improve productivity, personalize service, enable self-service, and provide access to services.**

The following guidelines will help us to meet this goal:

1. Use this project to examine business processes and practices and redesign them where needed. Conform to the best practices delivered out-of-the-box by PeopleSoft.
2. Through participation in the IDP process, team members will learn how to operate and maintain the Student Information System software.
3. Use proven methodology and tools for knowledge transfer and documentation of process decisions and designs.

#### **1.4.4. Implement the most upgrade-compatible system feasible and minimize total cost of ownership.**

The following guidelines will help us to meet this goal.

1. Establish and follow precise approval criteria for all software modifications.
2. When software modifications are necessary, utilize a "bolt-on" approach and do not modify delivered software unless absolutely necessary.
3. Thoroughly document technical specifications for all modifications and interfaces.
4. Reduce the number of shadow or distributed systems that duplicate functions in PeopleSoft.
5. Provide adequate training to technical support staff on the tools and technologies needed to support the new system.

6. Use a mentoring approach with consultants to ensure maximum knowledge transfer to NSHE personnel.

#### **1.4.5. Implement a reliable, secure, and scalable technical infrastructure.**

The following guidelines will help us to meet this goal:

1. Provide adequate training to technical support staff on the tools and technologies needed to support the new system.
2. Leverage the existing NHSE data centers to house the iNtegrate infrastructure. System Computing Services will manage the infrastructure under the guidelines of a service level agreement.

#### **1.4.6. Utilize student services performance measures to evaluate the impact of student services improvements from the new Student Information System.**

As the Nevada System of Higher Education implements the iNtegrate project, it is important to monitor progress toward and establish levels of achievement of the project's original goals. The Student Services Module Task Force selected the following four performance measures as key indicators of success at each institution. These measures are written with the goal of 100% achievement at the end of the project, with continuous improvement during implementation. The adoption of these measures does not limit individual institutions from naming their own appropriate, additional performance measures.

1. Students will have access to all internet self-service features and communications in the iNtegrate student services module at any time convenient for them.
2. Students will be able to conduct all standard student services transactions online if they so desire.
3. Students will be able to conduct all internet self-service transactions using one common ID, regardless of NSHE institution.
4. Students using internet self-service for online course selection transactions will receive confirmation of enrollment or waitlisted-status online. Follow-up notification will occur via internet for students who are waitlisted to confirm that they are either now enrolled in class or still waitlisted up to the last day of registration.

## **1.5 Critical Success Factors**

Critical success factors are conditions and resources that must be present and available for the project to be successful. Because these factors typically pertain to commitment of project resources, the NSHE Implementation Team should be notified if a critical success factor is altered during the course of the project, so that it can take mitigating

action. The critical success factors that have been identified for this project have been organized into separate, but interrelated, categories as listed below.

## **Personnel**

1. People are open to a new way of doing things, and there is a willingness and ability to change.
2. There is strong institutional executive leadership and support.
3. Functional executives own and drive the project.
4. There will be broad stakeholder participation.
5. There are skilled people on the project who are good communicators, see the big picture, and think outside the box.
6. People are given permission to tell the truth and do so.
7. The most appropriate and knowledgeable people are assigned to the project.
8. There is a process for getting short-term temporary assistance to help offset the loss of key staff during this project.
9. Qualified subject matter experts are available to work with the NSHE iNtegrate implementation teams in specific design sessions, as well as in testing and user training.
10. There will be representation by all institutions.
11. There is adequate functional and technical staff assigned to the project and they are afforded time to devote to the project.
12. Those in key roles have the necessary training and tools for the implementation.
13. A comprehensive training plan is in place.
14. A comprehensive communication plan is in place.
15. An appropriate number of consultants are available.
16. An appropriate amount of information from other institutions of higher education is available.
17. Project roles and responsibilities are clear.

## **Processes**

1. There is strong institutional commitment to collaboration.
2. The governance and decision-making framework is unambiguous.
3. The timeline is aggressive and requires prompt decision making.
4. The scope should be limited and decisions regarding scope should be prioritized.
5. Up to date information is provided.
6. There is an aggressive focus on understanding and tracking project costs and benefits.
7. Strong project management resources and processes are provided.

8. The project participants listen to users in their respective service units.
9. All departments will cooperatively review current business processes with the intent of streamlining them to achieve best practices using the PeopleSoft software.
10. New processes will be thoroughly and accurately documented.
11. The current level of service is uninterrupted.

### **Technology**

1. The necessary infrastructure is in place for conversion, development, training, testing, and prototyping.
2. PeopleSoft release upgrades will occur as scheduled with documentation and support.
3. Legacy data to be converted is accessible, accurate and complete.
4. There is NSHE awareness and acceptance that new development in the legacy systems will be restricted to mandatory functions only.

## **1.6 Assumptions**

Assumptions are internally or externally imposed conditions that impact the project and are assumed to be unchangeable. Because assumptions set expectations regarding the “ground rules” for implementation, they should be communicated to all project participants as well as the broader NSHE community. Current assumptions are given below:

(Source: NSHE/CEDARCRESTONE SOW 3912)

1. The scope of software functionality, data conversion, and interfaces has been correctly defined.
2. The academic calendar and fiscal calendar will be considered to determine when “go-live” dates are set within the project timeline and contractual schedules.
3. The Student Information System will introduce change for both end users and technical staff.
4. Funding for the project will be available at the budgeted amount.
5. NSHE technical implementation team members will receive necessary training.
6. Through participation in the IDP process, team members will learn how to operate and maintain the Student Information System software.
7. Both NSHE Implementation Team members and CedarCrestone will be available to work on the project whenever needed.
8. Project work environments, including the necessary hardware, software, network connections, office supplies, and meeting facilities, will be available to Implementation Team members for the duration of the project.
9. NSHE, with CedarCrestone's assistance, will be responsible for the technical architecture design, deployment, performance tuning and operations to support the iNtegrate Software.

10. NSHE and CedarCrestone will review all issues and recommendations and communicate all decisions within ten (10) business days. If a decision cannot be made, NSHE and CedarCrestone will work together to facilitate a decision as soon as possible.
11. All NSHE institutions will collaborate to develop common data, business rules and processes, wherever possible.

## 2.0 PROJECT SCOPE

The project scope was determined by an assessment of the software required to replace the applications currently running as part of the Student Information System (SIS) on the mainframe. Specifically, the NSHE institutions worked over a period of two years to develop detailed requirements for all SIS areas. This work involved: over 265 meetings; over 9,300 hours of NSHE staff time; hundreds of consulting and legal hours; the development of over 3,600 detailed SIS requirements, including 414 Admissions/Recruiting requirements; vendor demonstrations involving over 300 NSHE staff and vendor reference site visits involving over 70 staff.

The Student Information System Project scope will include implementation of the Software products listed below. This includes 23 known gaps that will likely require modifications. CedarCrestone has been contracted to build/satisfy these gaps. Any additional modifications must be approved by the modification governance process (see section 6.1.3). Additional modifications will be built by either SCS or Campus developers, or contracted separately with CedarCrestone.

### **PeopleSoft Campus Solutions (Campus Solutions):**

- Campus Community
- Admissions
- Student Records
- Financial Aid
- Student Financials
- Academic Advisement
- Grade Book

### **PeopleSoft Campus Self Service**

### **PeopleSoft Customer Relationship Management:**

- Marketing
- On-line Marketing
- Telesales (*f/k/a* Telemarketing)
- Multichannel Communications

### **Universal ID**

- Customer Data Hub (subject to selection of the UID option referenced below)

### **PeopleSoft Enterprise Portal**

### **PeopleSoft Enterprise Solutions Warehouse**

- Campus Solutions – EPM 9.0

- Fusion Intelligence for Campus Solutions (implementations of Dashboards delivered by Oracle as part of the Student Information System Software are in scope, while additional Dashboard development is subject to a Change Order)

### **UPK Productivity Kit (UPK) / PeopleTools**

- User Productivity Kit – UPK Developer
- User Productivity Kit – UPK Employees
- UPK Content Material for PeopleSoft Enterprise Campus Solutions, PeopleSoft Enterprise Fundamentals for Campus Solution, and PeopleSoft Enterprise Reporting Tools for Campus Solution
- Micro Focus International Ltd Server Express for Cobol for Unix

### **Other:**

- WebSphere for PeopleSoft Enterprise
- Crystal Reports for PeopleSoft Enterprise
- Crystal Enterprise/ Business Objects for PeopleSoft Enterprise
- PeopleTools

Additionally interfaces will be adapted or created to allow systems not moving to PeopleSoft to continue to function.

### **Interfaces to Third Party Software:**

- Ad Astra
- ECS/SAL
- WebCT
- Touchnet (or equivalent)
- Advantage

Note: If NSHE decides to interface the Student Information System Software with fsaAtlas, CedarCrestone will also develop this Interface at an additional cost, as described in Section III – Pricing and Payment Milestones.

Custom Developments – See Section J of the Statement of Work for the complete list of Custom Developments required of CedarCrestone.

### **Data Conversion:**

Active and historical data will be converted to the new system as defined in the statement of work. For additional information see Section 8.

### **Development of a Universal Identifier:**

The objective of Universal ID (UID) is to create one unique ID consistent across institutions and across information systems enabling NSHE-wide reporting and tracking through-out NSHE. The UID will be implemented by CedarCrestone in accordance with the requirements set forth in Addendum #2 to the RFP.

CedarCrestone is responsible for delivering a working UID solution to NSHE. This includes the design and development of the UID capability utilizing one of the following alternative design concepts.

The development work will begin by creating a strategy for providing a Universal ID capability for all NSHE institutions. The Functional Leads and Subject Matter Experts (SMEs) participating in relevant IDP sessions will choose a methodology and essential features of a UID for the NSHE system, and will identify and document UID requirements. CedarCrestone will facilitate planning of the technical approach to providing UID capability across NSHE system

CedarCrestone will provide an assessment of both Student Information System Project impact and long-term impact as part of the decision-making process. The NSHE Implementation Team will make a recommendation to the Executive Steering Committee by September 30, 2008. The Executive Steering Committee will act on the recommendation within two weeks after the recommendation is received.

**Option A: Centralized “Parent” Database**

An NSHE System Office database instance would serve as a centralized “parent” to the institution databases and could be used not only for student IDs, but also for any other data elements that NSHE chooses to centralize, such as catalog data and external organization data. All new ID requests would be initiated at a specific institution, and each request would trigger the Student Information System Software search/match utility to search the centralized database for matches for this person.

**Option B: Use an LDAP Server**

Another option would be similar to the above but would use another database, such as an LDAP server, to maintain the central/parent source of IDs and Bio/Demo data.

(Source: CedarCrestone SOW, April, 2008)

**Option C: Use Oracle’s Customer (Data) Hub Software**

Another option will be to use Oracle’s Customer (Data) Hub software to achieve the UID requirements set forth in Addendum #2 to the RFP.

(Source: Addendum to CedarCrestone SOW, April, 2008)

## **3.0 PROJECT FACILITIES AND TECHNICAL ENVIRONMENT**

### **3.1 *Technical Environment***

#### **3.1.1 Infrastructure Support**

All hardware for the iNtegrate Project will be located in the NSHE Data Centers and be managed by System Computing Services (SCS).

SCS will be responsible for

- Managing the servers
- Managing the network infrastructure to the institution demarcation points
- Managing the data center

A Service Level Agreement (SLA) will be established between SCS and the NSHE institutions which will outline services, expectations, responsibilities and costs.

#### **3.1.2 Software Support**

There will be three separate installations of the Campus Solutions software.

1. UNLV instance
2. UNR instance
3. TMCC/CSN/GBC/WNC/NSC instance

UNLV and UNR will provide database, PeopleSoft Administration and software support for their installations. SCS will provide database and PeopleSoft Administration for the shared instance and will partner with the institutions in the shared instance to provide software support. An SLA will be established between SCS and the NSHE institutions which will outline services, expectations, responsibilities and costs.

SCS will provide all support for the Universal ID and the NSHE data warehouse.

### **3.2 *Project Facilities***

The Nevada System of Higher Education will make facilities and necessary equipment available for the iNtegrate implementation. Specifically, designated areas will be provided in the north and south to house functional and technical personnel. With appropriate advanced planning, facilities and equipment will also be available for hands-on training of end users. The iNtegrate Project will take advantage of NSHE's extensive video conferencing facilities. In addition, the project will acquire mobile video units for flexible, ad hoc video communications. Additional collaborative tools such as webinars will be investigated.

Facilities will be provided according to the implementation schedule. As pilots, Truckee Meadows Community College and University of Nevada, Las Vegas have designated

specific space and equipment to the iNtegrate project. As the project progresses, facilities will be designated by each implementing institution.

At TMCC, multiple video conferencing sites will be available for functional and technical team use. Computer-based training facilities will be set aside based on time and size as needed. Specifically, Red Mountain (RDMT) 255 and Redfield RCB-100 are provided to house functional and technical personnel.

UNLV has reserved a training room, individual workspaces for dedicated staff, conference space for groups, and an office for the NSHE project manager. All public training will take place in CBC C-145. Individual work areas and meeting facilities are located in the James E. Rogers Center for Administration and Justice (RAJ).

## 4.0 PROJECT MANAGEMENT AND CONTROL

The purpose of this section is to provide a general overview of the processes and tools to be used to ensure project performance is regularly measured so that variances are identified and, where appropriate, actions are taken to resolve the variances. The following best practices will be deployed throughout the NSHE Implementation Project lifecycle to ensure that the project plan is effectively executed and controlled.

### 4.1 *Project Plan Maintenance*

The iNtegrate Project will follow the CedarCrestone High Level Work Plan developed for NSHE. The Work Plan will be maintained using the Microsoft Project application. The plan contains a comprehensive list of the required phases, tasks, and milestones for successful execution of the project. The plan identifies estimated begin and end dates for each phase, task, and milestone. As the project evolves, the plans will be updated to reflect percentage complete references for each task, phase, or milestone. The Work Plan will be regularly updated, monitored, and communicated.

#### 4.1.1 **Project Plan Availability**

The CedarCrestone Project Manager and the NSHE Project Director will have the security access to update the Work Plan. The Work Plan will be available to Implementation Team members.

### 4.2 *Meeting Management*

#### 4.2.1 **Project Meetings**

**Planning:** Meetings will be scheduled through standard calendaring systems by designated facilitators. Facilitators will ensure agendas and supporting documents be shared with meeting participants prior to the meeting.

**Communicating Results:** The facilitator will ensure that minutes, using the standard **Meeting Minutes Template**, are created and distributed. The meeting minutes will be saved using the standard naming conventions described in Section 6.3.

#### **Types of Meetings:**

**Business Process IDP Sessions** – This type of IDP is typically used for module specific business processes such as admitting international students. The following activities will be performed with functional leads and subject matter experts:

- Review current business processes
- Identify and examine best practices as supported by PeopleSoft
- Explore, setup, and prototype alternative business processes
- Test alternative business processes to determine if they meet business requirements
- Document selected business process(es)
- Review selected solutions with other users

Since prototypes are built incrementally, each IDP session is based on decisions and processes defined in previous prototypes. Therefore, those who miss or do not actively participate in an IDP session, or a set of sessions, will have difficulty understanding the remaining IDPs.

- **Foundational IDP Sessions** - There are setups within the Campus Solutions software that are considered part of the foundation to the PeopleSoft Campus Solutions system. These setups are broken into two categories; (1) Academic Structure and (2) Campus Community. Because these setups are the “foundation” of the system, rather than the “business processes” that faculty, staff, and students use, a different IDP approach will be employed.
- **Participants in Foundational IDPs:** The Academic Structure and Campus Community IDPs bring together representatives from key roles in student-related domains of the institution and System staff. Examples of roles include key decision makers in the areas of: (1) Admissions and Recruitment, (2) Student Records, (3) Financial Aid, (4) Student Financials, (5) Academic Advising and Degree Audit, (6) Institutional Research, and (7) other major data custodians across the institution. In the case of setting up Campus Community, representatives from Human Resources will be included.
- **Foundational IDP Approach:** For each of the two foundational setups (Academic Structure and Campus Community), we will uncover how the institution and System staff want to move forward with data that are key to major business processes. Examples of these include the following: (1) majors and minors, (2) terms and sessions, (3) number and type of academic transcripts, (4) number of distinct GPAs a student may have throughout his/her career, (5) number of address types, and (6) number of name types that each person will be allowed to have.
- **Importance of Participation:** Participation in these foundational IDPs is important as participants will learn more about how their institution plans to move forward with the Student Information System. Those who miss or do not actively participate in a foundational IDP session, or a set of sessions, will lack understanding or comprehension of any new directions the institution plans to take or structure upon which the Campus Solutions system is based. Consequently, it is important that all who are invited to these Foundational IDPs make every effort to attend.

**Module Team Meetings** – These meetings occur on an as needed basis to coordinate, validate or modify team activities. Common reasons for these meetings include: conversions, module scope, testing, training, modification reviews, issue resolution, etc. NSHE module/functional leads or supporting consultants are responsible for facilitating these meetings.

**User Review Sessions** – These meetings occur on an as needed but frequent basis so that the proposed system users may review system deliverables and provide open, candid feedback about the performance of the deliverables. NSHE module/functional leads or supporting consultants are responsible for facilitating these meetings.

**All Institution Module Leads Status Meetings** – These meetings are held regularly and attended by all iNtegrate institution Module Leads (i.e., Admissions and Recruitment, Student Records, Financial Aid, Student Financials, and Academic Advisement). The purpose of these meetings is to discuss project status as it relates to schedule and performance for the project.

**iNtegrate Implementation Team Meetings** – These meetings are held regularly and attended by all NSHE Implementation Team members referenced in Section 5.0. The purpose of these meetings is to discuss project status and any issues as they relate to schedule and performance for the project.

**iNtegrate Steering Committee Meetings** – Regular meetings of the NSHE Steering Committee will be scheduled on a monthly basis to review project status and issues. These meetings are also attended by the NSHE Student Services Module Task Force members referenced in Section 5.0. The Steering Committee will also meet as needed to address unresolved issues that require executive decisions.

## **4.3 Project Reporting**

The principle vehicles for project reporting will be standard weekly and monthly status reports. The NSHE Project Director's office will be responsible for posting the status reports to the iNtegrate Communication Center using standard naming conventions described in Section 6.3 and will be available to all Implementation Team members.

### **4.3.1 Weekly Status Reports**

Using the standard **Weekly Status Report Template**, weekly status reports will be submitted as follows:

- **Module Status Report:** The CedarCrestone module consultants will submit module status reports to the iNtegrate Project Office each week.
- **Institution Status Report:** Each Campus and SCS Project Lead will submit institution status reports to the iNtegrate Project Office each week. These reports should include functional and technical issues and status.
- **Technical Status Report:** The CedarCrestone lead technical consultant will submit a technical status report to the iNtegrate Project Office each week.

### **4.3.2 Monthly Status Reports**

Using the standard **Monthly Status Report Template**, the CedarCrestone Project Manager and the iNtegrate Project Director will jointly submit a monthly status report to the Executive Oversight Committee and the iNtegrate Steering Committee. This report will summarize the status of critical target dates and milestones, accomplishments and activities of the past month, and any issues that still need to be resolved. Monthly project summaries will also be available to everyone in the NSHE community on the project website.

## 4.4 Project Budget Management

The 3-year Project Budget has been established.

**Table 1: iNtegrate Project Budget**

iNtegrate Student Information System Project COST CATEGORIES	APPROVED FUNDING
Application Software	4,921,135
Hardware and System Software	6,700,000
Consulting and Implementation Support	14,030,000
Project and Pilot Institution Support	2,000,000
Co-Pilot Institution Travel Support	250,000
Project Contingency	2,000,000
	29,901,135

Project and institution support will be allocated to specific line items for draw down to support iNtegrate project activities. A project account has been established. The purpose of this account is to support pilot and co-pilot institutions as well as NSHE project staff with travel support, temporary functional staffing, backfill and consultant project expenses. Technical staffing, technical training, video conferencing equipment, computing equipment and supplies, and web conferencing services will be provided from project, institution and/or SCS funding sources.

### 4.4.1 Budget/Expense Approval

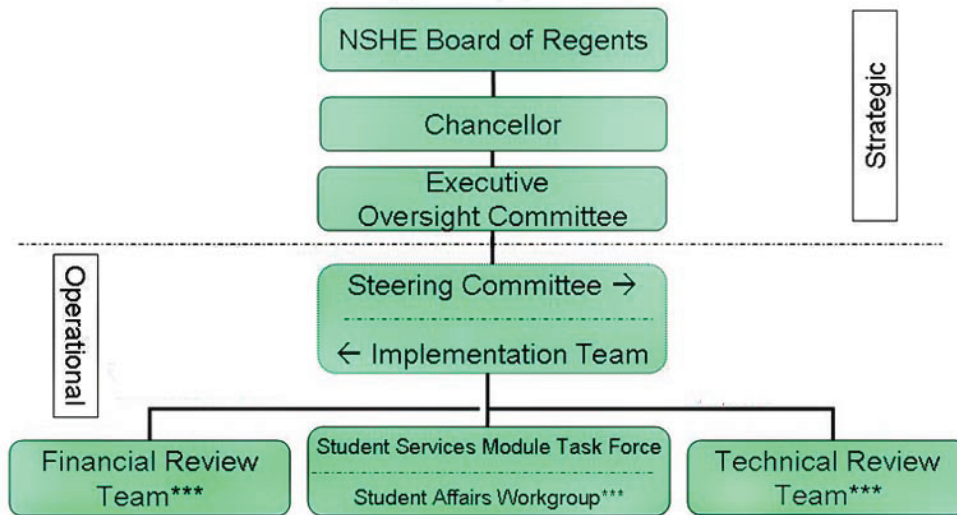
- All cost category budgets will be approved by the Executive Oversight Committee. The budgets for the application software, hardware and system software, consulting and implementation support have been approved. A detailed budget for project and institution staffing and travel support will be recommended by the iNtegrate Project Director, with input from the Implementation Team and Steering Committee.
- All invoices and expenses for project and institution support will be approved by the iNtegrate Project Director before they are entered into the accounting system.
- All institution travel expenses will be approved by the institution project lead or co-leads before funds are drawn from the institution' expense allocation.
- All expenses over \$2,000 are reviewed by the Vice Chancellor for Finance.

#### **4.4.2 Budget Status Reports and Review**

- Daily Reports will be available for the iNtegrate Project Account that show all current transactions that have been posted.
- A monthly Budget and Expense report will be prepared by the iNtegrate Project Office staff and is distributed to NSHE Budget Office staff.
- In the first weekly iNtegrate Project Implementation Team meeting of each month the project budget status report will be reviewed for the prior period.
- At the beginning of each quarter the project budget will be reviewed with the iNtegrate Steering Committee.
- There may also be a quarterly project and budget review by an outside consultant on behalf of the NSHE Board of Regents.

## 5.0 PROJECT GOVERNANCE STRUCTURE

The purpose of this section is to describe the project organization, explain project roles and responsibilities. The boundaries between strategic and operational are fluid dependent upon specific situational context. The chart in Figure 1 below provides an overview of the Project Governance Structure:



**Figure 1: Project Structure**

**The Executive Oversight Committee** – To deal with major strategic issues of the iNtegrate project and to create policy recommendations for the Chancellor and ultimately for the Board of Regents. This committee will meet as needed for issues such as Project strategies for: funding, collaboration, staffing, etc. This committee consists of the institution Presidents, the Executive Vice Chancellor, the Vice Chancellors, the Chief Counsel of the NSHE and the iNtegrate Project Director. *(Executive Vice Chancellor Klaich – Chair)*

**The iNtegrate Steering Committee** – Provide oversight and deal with major operational aspects related to implementing the iNtegrate project, including issues brought to the committee by the iNtegrate Project Director. This committee will meet as often as needed to maintain sufficient oversight. The committee consists of the iNtegrate Project Director, the Vice Chancellor for Academic and Student Affairs, two institution chief financial officers (CFOs), two institution chief information officers (CIOs), two institution academic affairs officers and two institution student service

officers (CSOs). To maximize institution participation on this committee, the CFOs, CIOs and CSOs all have rotating terms. (*NSHE iNtegrate Project Director – Chair*)

**The iNtegrate Implementation Team** – This working group will handle the major and ongoing tactical issues that will arise with the iNtegrate implementation project. The committee, comprised of the NSHE iNtegrate Project Director, NSHE iNtegrate Project Manager and the Project Leads from each institution, System Administrators and SCS, will meet regularly and frequently. When requested by the Project Director or when invited by other chairs, this group will also meet with the iNtegrate Steering Committee and other committees or groups to discuss larger issues and to be updated on project progress and issues. (*NSHE iNtegrate Project Director – Chair*)

**The Financial Review Team** – As the project begins its implementation phase, substantial resources will need to be identified, allocated and spent, both at the system and institution levels. As financial planning and other finance related issues arise, this committee will meet and make recommendations to the iNtegrate Steering Committee and the Implementation Team to address these financial issues. These recommendations may also include policy changes that are needed to optimize NSHE's investment in this new system. The membership of this existing committee will be transitioned to include the senior business officers from each institution and the system. Other institution financial officers (controllers, budget officers, etc.) may attend when needed. (*Vice Chancellor for Finance and Facilities Planning Reed – Chair*)

**The iNtegrate Student Services Module Task Force** – As the project begins the implementation phase, the Vision of this task force and many of its collaborative strategies will begin to materialize within the business rules and designs of the new Student Services Module. As student services and functional-backfill related issues arise, this committee will meet and make recommendations to the iNtegrate Steering Committee and the Implementation Team to address these issues. These recommendations may also include policy changes that are needed to optimize NSHE's investment in this new system. The membership of this existing committee includes the senior Student Affairs/Services officers from each institution and the system plus one campus representative named by the Vice Presidents of Student Services. (*Vice Chancellor for Academic and Student Affairs Nichols – Chair*)

**Student Affairs Workgroup (s)** – These groups of key institution and system student services representatives as designated by their Vice Presidents of Student Affairs or Student Services will address functional related issues that arise from developing common processes or when addressing unique requirements. These representatives are participants in project implementation activities involving Admissions/Recruitment, Records, Financial Aid, Student Financials, Advising and other key functions. Unresolved issues will be advanced to the SSM Task Force for their consideration.

**The Technical Review Team** – This new committee will handle the major operational/tactical issues related to technology that will arise with the iNtegrate implementation project. This group will be focused on the technology related issues resulting from the implementation effort and the creation of new iNtegrate technical services. This team will integrate with other governance and planning efforts that are already underway. The membership of the existing committee will be transitioned to include to include the top institution IT managers (CIOs, etc.).  
(*Vice Chancellor for Information Technology - Chair*)

**Note:** In addition to chairing the iNtegrate Steering Committee and the Implementation Team, the NSHE iNtegrate Project Director is an ex-officio member of all other committees, teams and workgroup.

## 5.1 Roles, and Responsibilities

This section describes the various teams, their roles and their responsibilities. Each table below addresses a particular team. Additionally, a team roster with contact information for all consultants and NSHE project team members will be maintained and updated throughout the project. It will be available to all team members in the Project Communication Center.

During the First Wave, the Co-Pilot Institutions can participate at a level that is feasible for their institution. This participation level may be augmented through collaboration with other NSHE Institutions. However, the greater participation from the Co-Pilots during the First Wave, the easier their implementation will be during Second Wave. It should be noted that the Co-Pilot implementations will become increasingly more difficult as their level of participation during the First Wave decreases.

**Table 2: iNtegrate Roles**

ROLES	RESPONSIBILITIES
<p>iNtegrate Project Director: The project director oversees all aspects of the project and leads the project management team.</p>	<ol style="list-style-type: none"> <li>1. Facilitate high level project decisions. One of the keys for the success of the implementation project is to make decisions wisely and quickly.</li> <li>2. Draft for approval by the iNtegrate Steering Committee, project, computing and data management policies and procedures.</li> <li>3. Approve institution support expenditures and consultant invoices.</li> <li>4. Serve as a vehicle to help keep the NSHE community informed about changes, issues, and decisions.</li> <li>5. Review and approve project implementation planning activities.</li> <li>6. Review and recommend project scope and priorities to the Steering Committee as appropriate.</li> <li>7. Review and recommend system modification requests to the Steering Committee as appropriate</li> <li>8. Facilitate and direct project implementation team activities.</li> <li>9. Regularly report progress of the project to the Steering Committee, Executive Oversight Committee and the Board of Regents.</li> <li>10. Develop and execute plan for communication of project information to targeted audiences NSHE-wide.</li> <li>11. Develop and distribute information about project benefits, status,</li> </ol>

	<p>training, etc.</p> <p>12. Coordinate all activities that involve entities external to the project implementation and institution teams.</p>
<p><b>iNtegrate Project Manager:</b> The Project Manager assists the Project Director in the assessment and coordination of the implementation project and functions as the communication coordinator.</p>	<ol style="list-style-type: none"> <li>1. Research and help solve issues raised by the Project Implementation Team and provide input into strategic project planning and implementation.</li> <li>2. Resolve logistics, staffing and business issues/concerns.</li> <li>3. Monitor project progress and consultants' performance.</li> <li>4. Manage issue resolution.</li> <li>5. Manage scope, monitor milestone achievement and escalate as warranted</li> <li>6. Regularly report progress of the project to the Project Director</li> <li>7. Provide Quality Assurance review and approval for communications to all audiences beyond the Project Implementation Team.</li> </ol>
<p><b>CedarCrestone Project Manager:</b> The CedarCrestone Project Manager oversees project implementation and facilitates communication across teams.</p>	<ol style="list-style-type: none"> <li>1. Make overall project decisions that ensure the project is completed on time and within budget constraints.</li> <li>2. Monitor milestone achievement and takes corrective action if warranted</li> <li>3. Manage issue resolution.</li> <li>4. Manage scope, monitor milestone achievement and take corrective action if warranted</li> <li>5. Regularly report progress of the project to the Project Office.</li> <li>6. Facilitate prioritization of project activities.</li> </ol>
<p><b>CedarCrestone Technical Lead:</b> The Technical Lead oversees project technical activities including modifications, interfaces and conversions.</p>	<ol style="list-style-type: none"> <li>1. Regularly report progress of the project to the CedarCrestone Project Manager</li> <li>2. Advise technical training efforts.</li> <li>3. Respond to requests for technical enhancements in the PeopleSoft system from the Module Leads.</li> <li>4. Implement interfaces and customizations as defined in the SOW.</li> <li>5. Convert existing legacy data to the new PeopleSoft environment</li> <li>6. Develop a CS security strategy.</li> </ol>
<p><b>CedarCrestone Module Lead:</b> The consultant Module Lead guides their team through the implementation phases, managing tasks, assignments, progress and quality to insure smooth go-lives.</p>	<ol style="list-style-type: none"> <li>1. Monitors the Project Work Plan</li> <li>2. Prepares Module Status Reports</li> <li>3. Oversees and guides the following activities; <ul style="list-style-type: none"> <li>• Definition of business processes</li> <li>• Development of business process guides/documentation</li> <li>• Determining table values</li> <li>• Completion of table setups and on-going maintenance</li> <li>• Definition of data conversion requirements and timeline</li> <li>• Definition of required reports</li> <li>• Developing information for test scripts</li> <li>• Defining security requirements</li> </ul> </li> </ol>

	<ul style="list-style-type: none"> <li>• Recommend any policy changes</li> <li>• Defining modifications/customizations</li> <li>• Completion of testing</li> <li>• Development of training curriculum for end users</li> <li>• Monitoring issues through resolutions</li> <li>• Data cleanup requirements and process</li> </ul>
<p><b>CedarCrestone Installation Support:</b> Assists with the sizing and configuration design of the hardware environment, installs the software and provides limited on-going support.</p>	<ol style="list-style-type: none"> <li>1. Perform initial installation and configuration of the following: <ul style="list-style-type: none"> <li>• Database Server</li> <li>• Database Engine</li> <li>• Application Server</li> <li>• Web Server</li> <li>• Report Server</li> <li>• Third Party products required for the installation of Student Information System Software</li> <li>• Required patches and fixes for the above items</li> </ul> </li> <li>2. Establish a procedure for the installation of PeopleTools and required 3rd party products for developer workstations.</li> <li>3. Provide assistance in sizing PeopleSoft environments to meet acceptable performance standards.</li> <li>4. Provide on-going assistance in preparing infrastructure and environments as they are needed by the project.</li> </ol>
<p><b>iNtegrate Institution SA Project Leads:</b> The project lead or co-leads at each institution manage all project activities for their institution.</p>	<ol style="list-style-type: none"> <li>1. Actively participate in iNtegrate implementation team meetings.</li> <li>2. Coordinates all aspects of Project Implementation for their institution which may include managing the institution project budget.</li> <li>3. Provides direction and oversight to institution functional module teams.</li> <li>4. Coordinates involvement of institution Subject Matter Experts, User Review Teams and other stakeholders as required.</li> <li>5. Coordinates implementation tasks with institution Technical Project Lead.</li> <li>6. Monitors institution progress toward implementation goals.</li> <li>7. Manages issue resolution.</li> <li>8. Elevates unresolved institution issues to Integrate Project Office.</li> <li>9. Elevates recommended policy changes as appropriate.</li> <li>10. Coordinates weekly institution status reports to the Integrate Project Office.</li> <li>11. Serves as the key institution point person for institution Project information.</li> <li>12. Serves as the conduit for institution Integrate Office Communications.</li> </ol>
<p><b>Institution Technical Lead:</b> The Institution Technical Lead is responsible</p>	<ol style="list-style-type: none"> <li>1. Create and oversee the process of designing and analyzing program specifications for the institution instance of the iNtegrate project including interfaces from current NSHE legacy systems to</li> </ol>

<p>for all technical activities for their institution.</p>	<p>PeopleSoft systems as necessary when requested by Module Leads.</p> <ol style="list-style-type: none"> <li>2. Develop and implement testing procedures designed to ensure that all system components meet functional requirements.</li> <li>3. Create end user support structures to meet a variety of institution constituent needs.</li> <li>4. Participate fully in all communication efforts related to the Student Information System implementation.</li> <li>5. Assist module teams with customization requests, and respond to customization requests including interfaces as necessary.</li> <li>6. Assist functional groups in developing and implementing workflow requirements.</li> <li>7. Create and oversee institution level database administration, and be responsible for recommending data standards and guidelines on coding structures and data replication to ensure access to and integrity of institution data assets.</li> <li>8. Create and oversee the process of configuring application and database security. Participate in the development of PeopleSoft security strategy. Develop technical specifications for institution PeopleSoft security.</li> <li>9. Create and oversee the extract, transform, and load process to put data into reporting databases and warehouse</li> <li>10. Develop and support data query and reporting needs using appropriate NSHE toolsets.</li> <li>11. The Technical Leads collaborate in system-wide development efforts by contributing and by adopting work done at other NSHE institutions.</li> </ol>
<p><b>iNtegrate SCS Project Lead:</b> The iNtegrate SCS Project Lead coordinates all software implementation project activities within SCS.</p>	<ol style="list-style-type: none"> <li>1. Actively participate in iNtegrate implementation team meetings.</li> <li>2. Coordinate SCS technical team developing standards and processes for supporting all iNtegrate software components managed by SCS</li> <li>3. Coordinate SCS technical team providing support for system-wide components such as the NSHE data warehouse and the Universal ID</li> <li>4. Coordinate SCS technical team providing support for shared instance including: <ul style="list-style-type: none"> <li>• functional/technical liaison and support structure</li> <li>• database administration</li> <li>• application administration</li> <li>• customizations/interfaces/reports</li> <li>• workflow</li> <li>• security</li> </ul> </li> <li>5. Coordinate SCS technical team in converting existing legacy data to the new PeopleSoft environment</li> <li>6. Monitor SCS progress toward implementation goals.</li> <li>7. Manage issue resolution.</li> <li>8. Elevate unresolved SCS issues to Integrate Project Office.</li> </ol>

	<ol style="list-style-type: none"> <li>9. Coordinate weekly SCS status report to the Integrate Project Office.</li> <li>10. Serve as the key SCS point person for SCS Project information.</li> <li>11. Serve as the conduit for SCS Communications.</li> </ol>
<p><b>iNtegrate Module Team Lead:</b> The Integrate Module Team Lead is an Institution Module Lead that serves as the NSHE spokesperson for their respective module. There will be one for each of the major modules (AA, AD, FA, SF, SR).</p>	<ol style="list-style-type: none"> <li>1. Spokesperson for institution module leads.</li> <li>2. Actively participate in iNtegrate team meetings.</li> <li>3. Facilitate institution module lead meetings and communications.</li> <li>4. Facilitate prioritization of project activities.</li> <li>5. Manage issue resolution.</li> <li>6. Coordinate with Institution Project Lead/Co-Leads to determine technical environment and facilities needed for end user training.</li> <li>7. Serve as an institution module lead.</li> </ol>
<p><b>Institution Module Lead:</b> The Institution Module Leads work closely with their respective consultant Module Lead to plan and complete module activities.</p>	<ol style="list-style-type: none"> <li>1. Actively participate in Integrate team meetings.</li> <li>2. Direct the training and end-user support efforts.</li> <li>3. Facilitate prioritization of project activities</li> <li>4. Manage issue resolution.</li> <li>5. Coordinate train-the-trainer program for end user training</li> <li>6. Develop functional requirements for security</li> <li>7. Carry out the Project Work Plan</li> <li>8. Formulate best practice processes and procedures</li> <li>9. Assist in design of prototypes</li> <li>10. Participate in testing, including creating test scripts</li> <li>11. Review prototypes with appropriate institution members</li> <li>12. Facilitate meetings on an as needed basis to coordinate, validate or modify team activities, schedule and performance of the project. Additional common reasons for meetings include: conversions, module scope, testing, training, modification reviews, issue resolution, etc.</li> <li>13. Provide weekly status reports to institution project lead/co-leads. These reports should include functional and technical issues and status.</li> <li>14. Work closely with the Institution Project Lead and module consultant for go-live planning activities.</li> <li>15. Plans and coordinates post-implementation support.</li> </ol>
<p><b>Institution Functional Leads:</b> The Institution Functional Leads work closely with the Consultant and Institution Module Leads to carry out the implementation responsibilities.</p>	<ol style="list-style-type: none"> <li>1. Facilitate prioritization of project activities.</li> <li>2. Discuss institution policy change with the Institution Module Lead for recommendation to the Institution Project Lead(s)</li> <li>3. Serve on Module Teams as needed</li> <li>4. Participate in assessment activities</li> <li>5. Coordinate the following activities: <ul style="list-style-type: none"> <li>• Plan and oversee development of end user training materials and user guides</li> <li>• Define and develop and functional requirements for security</li> </ul> </li> </ol>

	<ul style="list-style-type: none"> <li>• Define business processes</li> <li>• Determine table values</li> <li>• Define data conversion requirements and timeline</li> <li>• Define required reports</li> <li>• Define modifications/customizations</li> <li>• Define, coordinate and complete data cleanup requirements and process</li> <li>• Identify and map critical business processes</li> <li>• Participate by exploring/testing software to understand capabilities</li> <li>• Participate in unit and system level testing</li> <li>• Assist with documentation and training</li> <li>• Assist in resolving open Help Desk issues as needed. Resolve or elevate project issues as required in a timely manner.</li> <li>• Contribute to the Work Plan</li> <li>• Develop and review prototypes</li> <li>• Complete required table setup</li> <li>• Create test scripts</li> </ul>
<b>Additional Module Members</b> <ul style="list-style-type: none"> <li>• Subject Matter Experts</li> <li>• Documentation Specialists</li> <li>• Training Specialists</li> <li>• Reporting Specialists</li> </ul>	<ol style="list-style-type: none"> <li>1. Assist the Functional Lead in the above bulleted items as necessary.</li> <li>2. Other project duties as assigned.</li> </ol>

**Table 3: Module Teams**

ROLES	RESPONSIBILITIES
<b>Module Teams &amp; Leads</b>  Academic Structure Campus Community Admissions / Recruitment Financial Aid Student Financials Student Records CRM Academic Advisement	<ol style="list-style-type: none"> <li>1. Carry out the Work Plan.</li> <li>2. Define and document business processes.</li> <li>3. Determine table values.</li> <li>4. Complete required table setup and maintenance.</li> <li>5. Define data conversion requirements and timeline.</li> <li>6. Define required reports.</li> <li>7. Develop information for test scripts.</li> <li>8. Define security requirements.</li> <li>9. Recommend policy change.</li> <li>10. Define modifications/customizations.</li> <li>11. Complete testing.</li> <li>12. Maintain business process documentation.</li> <li>13. Work with Training Team to develop and deliver training</li> </ol>

	<p>curriculum to end users.</p> <p>14. Resolve or elevate issues.</p> <p>15. Define data cleanup requirements and process.</p>
<p><b>Subject Matter Experts (SMEs):</b> NSHE Functional experts who will share these responsibilities in their respective areas of expertise for each of the teams listed above.</p>	<ol style="list-style-type: none"> <li>1. Identify and map critical business processes.</li> <li>2. Explore software to understand capabilities.</li> <li>3. Formulate best practice processes and procedures.</li> <li>4. Assist in design of prototypes.</li> <li>5. Review prototypes with appropriate institution members.</li> <li>6. Participate in testing.</li> <li>7. Assist with documentation and training.</li> <li>8. Serve on Module Teams as needed.</li> <li>9. Assist in resolving open Help Desk issues as needed.</li> </ol>

**Table 4: Support Teams**

<b>ROLES</b>	<b>RESPONSIBILITIES</b>
Training/End User Assistance	<ol style="list-style-type: none"> <li>1. Develop end user documentation, training, and post-implementation support plans.</li> <li>2. Plan and oversee development of end user training materials and user guides.</li> <li>3. Coordinate train-the-trainer program for end user training.</li> <li>4. Coordinate with Institution Project Lead(s) to determine technical environment and facilities needed for end user training.</li> <li>5. Coordinate post-implementation end user support.</li> <li>6. Develop and implement Help Desk plan.</li> </ol>
Application Support	<ol style="list-style-type: none"> <li>1. Serve as the liaison between the functional and technical teams.</li> <li>2. Assist functional groups in IDP sessions.</li> <li>3. First group of technicians who respond to customizations including interfaces from functional groups.</li> <li>4. Assist functional groups to develop and implement workflow requirements.</li> </ol>
Development	<ol style="list-style-type: none"> <li>1. First group of technicians to implement customizations that are owned by functional groups.</li> <li>2. Assist functional techs with customization requests as necessary.</li> <li>3. Implement interfaces from current NSHE legacy systems to PeopleSoft systems as necessary.</li> </ol>
Security	<ol style="list-style-type: none"> <li>1. Develop security strategy.</li> <li>2. Develop functional requirements for security.</li> <li>3. Develop technical specifications for security.</li> <li>4. Configure application and database security.</li> </ol>

Data Warehouse & Reporting	<ol style="list-style-type: none"> <li>1. Extract, transform, and load data into reporting databases and warehouse.</li> <li>2. Develop and support data query and reporting needs using appropriate NSHE toolsets.</li> <li>3. Maintain the integrity of the NSHE Common Data Elements.</li> </ol>
Communications	<ol style="list-style-type: none"> <li>1. Develop and execute plan for communication of project information to targeted audiences NSHE-wide.</li> <li>2. Develop and distribute information about project benefits, status, training, etc.</li> <li>3. Provide Quality Assurance review for communications to all audiences beyond the Module Team.</li> <li>4. Generate articles and updates regarding the project, for internal and external communications.</li> <li>5. Creation and distribution of project media – press releases, media advisories, blogs, podcasts, wikis, and some web design developments.</li> <li>6. Identify audiences and their information needs.</li> </ol>

## 6.0 PROJECT PROCESSES

The purpose of this section is to describe the processes and tools that will be used to design, develop, configure, and set up all software that is included in the project scope. These processes and tools are critical to the success of the project in meeting its goals. In addition to the standard procedures of Propel, CedarCrestone's implementation methodology, critical project processes include the following:

- Issue Resolution and Change Control
- Decision Making
- Modification Criteria
- Document Management

### 6.1 **Standard Procedures**

This project will follow the standard procedures of CedarCrestone's Propel implementation methodology, which is organized around five phases:

1. Project Planning and Discovery
2. Analysis and Design
3. Configuration and Development
4. Testing and Training
5. Deploy and Optimize

During Wave 1 of the implementation, the pilot institutions will complete all of these phases. Co-pilot institutions will participate in Phases 1 and 2, and are encouraged to participate in later phases. During Wave 2, co-pilots will fully participate in all phases for their implementation.

#### 6.1.1 **Phase 1: Project Planning and Discovery**

The planning phase provides an opportunity to discuss and come to agreement on a set of common goals and objectives and develop positive working relationships. It is the beginning of building a team that has a shared vision, views the project from a systems thinking perspective, develops team learning capabilities, and advances individual mastery of new skills. Most of the plan and discovery activities for all institutions will be conducted collaboratively at the beginning of the project.

#### **Objectives**

1. Jointly define and communicate the project vision, goals and objectives
2. Confirm project scope (including Universal ID approach)
3. Specify the project organization and roles and responsibilities of participants
4. Establish a timeline and confirm resources necessary to guide the project to a successful completion
5. Identify project risks and formulate mitigating strategies to eliminate them

6. Develop a communication plan based upon constituency needs for project information

### **Process**

**Project Chartering.** Conduct planning meetings with the appropriate groups/individuals to complete the following tasks: confirm the project vision, goals and objectives; discuss and confirm the project scope, organizational structure and roles and responsibilities of participants; conduct a risk analysis; develop/confirm the decision making process; formulate the Training Plan for iNtegrate Technical Team members and end users; and determine the appropriate strategies for modifications, interfaces and data conversion.

**Project Work Plan Development.** Based upon the final Statement of Work and methodology formulate an initial Project Work Plan. Use Microsoft Project to develop and maintain a detailed Project Work Plan that lists tasks in sequential order with corresponding start and finish dates, proposed staff, and projected duration for each task. Once the CedarCrestone Project Manager has drafted the Project Work Plan, it is refined in collaboration with the iNtegrate Implementation Team and iNtegrate Project Office. The CedarCrestone Project Manager will be responsible for the systematic and timely collection of measurable, meaningful and accurate information to maintain the Project Work Plan. The iNtegrate Project Office will regularly review the Project Work Plan status with the iNtegrate Project Leads and iNtegrate Steering Committee and make a summary available for the iNtegrate Project Website.

### **Phase 1: Deliverables**

The iNtegrate Implementation Team and consultants will produce the following key deliverables in this phase of the project:

- High-level Work Project Plan
- Project Charter
- Standard Templates used during the project

For a complete list deliverables, see the Project Work Plan.

## 6.1.2 Phase 2: Analysis and Design

This phase is also known as Interactive Design/Prototyping (IDP)<sup>™</sup>, CedarCrestone's approach to designing and prototyping system and business processes. Phase 2 is an iterative process that is repeated for each business process being explored. It begins with a discussion of the needs of end users who are to be served by the software. From this perspective, current business processes and the capabilities of the software are reviewed. Teams comprised of NSHE subject matter experts, team leads, and CedarCrestone consultants collaborate to identify any required adaptations in business practice or software, develop a comprehensive implementation task list, and create a prototype system design. This phase encompasses all processes and software determined to be within scope. This approach accelerates the analysis and design stage of the project by building a prototype and facilitates knowledge transfer by including subject matter experts in the design process. During Phase 2, the initial technical environment is prepared and preliminary technical plans are developed.

### Objectives

- Design and develop prototypes of high priority processes
- Develop strategies for testing and security
- Refine the Project Work Plan
- Accelerate system set-up

### Processes

**IDP Planning.** During this initial IDP process, CedarCrestone consultants work with NSHE staff to identify business processes, confirm participants for IDP sessions, schedule IDP sessions, and conduct an IDP orientation. The IDP process is intended to involve users immediately to draw upon their knowledge of the institutions' and System staffs' business functions. Early project involvement is necessary for users to: (1) have ownership of the process, (2) have realistic expectations of the project scope, and (3) have vested interest in the outcome.

**IDP Sessions.** The IDP sessions will involve a wide range of the institutions' functional and technical staff in focused sessions. In the IDP sessions, users and consultants will walk through business processes and associated software functionality. During the sessions, teams will configure a prototype based on the software's functionality and the desired business processes. Users will walk through the actual processes on-line.

This walk-through encourages active participation and input from team members regarding the components of the system and how they will be used. By using the delivered product as a template for discussion, differences or gaps between delivered functionality and anticipated utilization are clearly identified. At the conclusion of the process, users have a specific understanding of the extent to which the system will support their requirements and where changes to business processes can help optimize the software and improve productivity. If a software modification is considered absolutely necessary, a request and rationale for modification are submitted to the iNtegrate Implementation Team for review and approval. At the end of each IDP, a Communication Center forum or demo will be initiated to summarize, discuss and escalate issues when appropriate.

**IDP Outcomes.** The IDP sessions enable the team to quickly uncover gaps in functionality and explore alternative solutions. Setup changes to the system can be incorporated immediately. Changes, such as those to business processes or program logic, are documented and addressed later in the implementation. The issues and their recommended solutions are documented using the **IDP Session Minutes Template or IDP Workbooks**.

The results of the IDP sessions enable the project team to develop a working prototype using NSHE-specific business process models. The prototype will provide a working model that reflects NSHE's unique rules, processes, and data. It can be used in management demonstrations, training development, and testing.

Another outcome of the IDP phase is an expanded and more detailed Project Work Plan. This iterative approach to refined planning incorporates specific requirements and provides an increasingly more specific road map as the project enters the detailed development, implementation, and deployment phase. Specifically, the Project Work Plan includes the following information:

- Specific work breakdowns structures (WBS)
- Dependencies and other relationships among tasks
- Estimated effort
- Resource allocation of both internal and external project staff

At the conclusion of this prototyping process, we will have the complete project template to accomplish modification, enhancement, conversion and implementation. This overall model will provide enough structure and discipline to drive the project forward while maintaining necessary control and accountability.

## **Phase 2: Deliverables**

The iNtegrate Project members and CedarCrestone consultants will produce the following deliverables in this phase of the project:

- IDP Sessions Minutes
- Detailed conversion plan and definition of data conversion requirements
- Functional and technical modification requirements
- Assessment of report requirements
- Assessment of interfaces with existing internal systems and third party vendor systems
- Development of security templates and security requirements
- Refined end-user training strategy

For a complete list deliverables, see the Project Work Plan.

### **6.1.3 Phase 3: Configure and Development**

With sufficient planning and involvement of key stakeholders and prototyping of the system in Phase 2, this phase entails the development, data conversion, setup, and configuration of the PeopleSoft software, interfaces, and reports. By this stage, iNtegrate

project team members should be familiar with the software and well prepared to develop functional and technical specifications and business process guides. The strategy is to build upon and further refine the deliverables from earlier Phases and lay the foundation for Phase 4.

## **Objectives**

- Develop Technical Plan to include modifications, interfaces, and conversion
- Develop detailed functional and technical specifications
- Configure the application
- Map data from the legacy system to the new system
- Document business processes
- Develop and unit test modifications, interfaces, reports and conversion processes
- Apply fixes, upgrades, and security

## **Process**

The first step in this phase is development of a Technical Plan, which includes detailed functional and technical specifications for approved application modifications, custom reporting, interfaces and conversions. The Technical Plan outlines the assumptions, number of interfaces, timing, and technical considerations. The technical staff builds the necessary conversion programs, tests the conversion programs, and executes the conversion.

## **Data Conversion**

Data conversion activities are often among the greatest challenges of an implementation project. Irregularities in legacy data must be rectified, or the results can have catastrophic impacts on business functionality and distort data exponentially with use. Therefore, one of the project deliverables for Phase 2, Analysis and Design, is a detailed conversion plan, which establishes the objectives and criteria for the conversion effort and identifies specific data and database sources to be converted based on these criteria. The key strategies driving the conversion plan are included in Section 8.1, “Data Conversion Strategy.”

Organize the specific tasks associated with conversion according to the following major components:

1. Conversion planning
2. Data analysis and mapping
3. Conversion programming
4. Data integrity checking and audit
5. Conversion execution
6. Post conversion clean up

CedarCrestone will provide a data mapping methodology and a facilitator who works with the functional users and appropriate technical staff. This data mapping activity results in information that assesses the integrity of the data, identifies policy issues,

clarifies and formulates data definitions, and provides a basis for proceeding with the conversion in a logical manner.

### Customization Strategy

As set forth in the Project Statement of Work, all software modifications must be approved by the iNtegrate Implementation Team. Approval of software modifications will be restricted to those modifications that meet one of the following criteria.

- **Mandatory Regulatory Requirement** – There is a Federal or State/legal requirement or accreditation requirement imposed by an external agency that cannot be eliminated or changed. The requirement will be cited, subjected to careful review for alternative interpretations, and challenged if reasonable to do so.
- **Business Requirement** – There are policy compliance and reporting requirements mandated by NSHE Board of Regents.
- **Productivity Enhancement** – There is a substantiated, well-documented business case, i.e., cost benefit, for the modification based on real costs and savings.
- **Mission Critical** – Without this capability, the institution will lose a competitive advantage or capability considered critical to its mission.

If a software modification involves a policy change or has a fiscal impact, additional project approvals will be required.

The guidelines in **Table 5**, below, are followed to minimize the impact of the modification on future upgrades and maintenance.

**Table 5: Technical Guidelines for Customizations**

DOMAIN	GUIDELINE	IMPLICATIONS
Data Structures	When unable to store required data in provided data structures, developers will always add new record definitions rather than augment existing records.	This prevents PS changes to those records from overwriting, and prevents impact on other processes that use those records.
Pages and Components	Several techniques may be used to prevent PS changes from impacting custom changes, including the following: <ul style="list-style-type: none"> <li>▪ Clone and Edit: developers may clone existing PS objects and modify them for use as needed.</li> <li>▪ Sub-pages: when Clone and Edit may be cumbersome, developers create links to new data on the existing pages. If a page is changed by PS, only the link must be restored.</li> <li>▪ New Pages &amp; Components: Sometimes it is a more viable option to use a custom page or groups of pages to access data.</li> </ul>	Clone and Edit may be cumbersome. See Sub-pages approach.  Developers must also consider the design of the existing pages and how they will be used. Sometimes editing existing pages is the most effective course of action.
PeopleCode Programs	PeopleCode is a scripting language that performs work for the user when certain actions are performed in the system. The PeopleSoft system contains over 80,000 of these programs. Some approaches using PeopleCode include the following: <ul style="list-style-type: none"> <li>▪ Make the change and accept the risk.</li> <li>▪ Clone items and change clones: In some cases,</li> </ul>	Changes to these programs can be risky for upgrades. However, PeopleTools 8.0 added flexibility developers can utilize to reduce upgrade risk in some cases. For certain small changes, the risk is minimal.

DOMAIN	GUIDELINE	IMPLICATIONS
	it is possible to avoid changing PeopleSoft PeopleCode but still alter how a page behaves with this method.	Where possible, developers will seek to add PeopleCode to events that have no current PeopleCode.
Online or Batch Programs	<p>Approaches to modification of these items vary depending on what kind of item is in question. Examples of approaches are highlighted below:</p> <ul style="list-style-type: none"> <li>▪ COBOL Programs: developers seek to avoid any modification to COBOL programs. Developers would either build a new process using another tool, or recommend a “pre” or “post” processing program to be added before or after the delivered process to achieve desired results. All SQL to be issued by Cobol programs is stored in a table, often behavior of Cobol programs can be changed with no coding changes by updating the data in this record.</li> <li>▪ SQR Programs: New SQR programs are often created to support custom reporting requirements. Existing SQR programs that must be changed are usually cloned. Generally, XML Publisher will be used where applicable.</li> </ul>	COBOL programs are the most difficult to maintain, and over time PeopleSoft is expected to phase them out. Developers seek to minimize modifications to SQR programs because it can be difficult to maintain these programs when PS makes changes.
Application Engine Programs	AE Programs are broken into many components, Programs, Sections, SQL Statements, PeopleCode Statements. Developers clone and update the clone, or they can modify only individual items as needed. New batch processes will be written using this tool.	Modifications to programs written with this tool represent the lowest risk.

### Phase 3: Deliverables

iNtegrate Module Teams, consultants and developers will produce the following deliverables in this phase of the project:

- Technical Plan
- Detailed functional and technical specifications
- Conversion maps
- Tested and documented system components
- Business Process Guides
- Module Security Matrices

For a complete list deliverables, see the Project Work Plan.

#### 6.1.4 Phase 4: Testing and Training

Module Teams should allow sufficient time to thoroughly test throughout the project, using appropriate methods and tools and involving the right people. This phase is the quality assurance step that is critical to assure that the system has been configured properly, the data have been converted correctly, and the technical environment can support the efficient operation of the system. The overall purpose is to ensure that both

the system and the users are prepared to go live, including the preparation of a detailed End User Support Plan.

### **Objectives**

- Provide testing for the procedures necessary to successfully implement, support, and use the new system at the established levels of performance
- Develop Testing Plan to include objectives, types of testing required, and timing
- Develop test scripts.
- Develop end user training materials and schedule.
- Deliver end user training

### **Process**

The testing process begins with a Test Plan developed jointly by the Module Teams and consultants. The strategy that drives this plan is included in **Section 9.2** of the Charter. The test plan explains what is to be tested and the criteria for evaluating the test results. All test results will be reviewed by the Module Team. The typical test plan encompasses both functional and technical users and includes unit testing, system integration testing, acceptance testing, system stress testing/performance and beta/parallel testing. If customizations are made, they are also tested. Any exposures revealed during the test will result in the creation of new tasks with deadlines. Required coding corrections are made and testing continues until all conditions are successfully tested. This testing is the final development activity for an individual component.

A training plan will be developed jointly by the Module Team and consultants. The strategy that drives this plan is included in **Section 10.1** of the Charter. Business processes will be identified and target audiences identified. The type of training may vary from large classroom settings, web based or small group based training. Training materials will be crafted from Business Process Guides developed in the previous phase. Testing scenarios can be modified to create practice activities or homework. When a large number of users are to be trained on a set of processes, a train-the-trainers approach will be used to prepare the trainers. A separate training environment may be necessary to accommodate the numerous training sessions.

### **Phase 4: Deliverables**

The iNtegrate Module Teams and consultants will produce the following deliverables in this phase of the project:

- Test plan and objectives
- Test scripts and results
- Successful test approvals
- End user training plan
- End user training materials

For a complete list deliverables, see the Project Work Plan.

### **6.1.5 Phase 5: Deploy and Optimize**

The final phase of the implementation process must be formalized to assure that all necessary pre-requisites to going live are completed. This phase must also address any outstanding issues and assess achievement of all of the objectives set forth in this charter.

#### **Objectives**

- Prepare technical staff for system operation
- Assist end users in learning to use new system and new business processes
- Complete final preparations for go-live
- Complete cutover to production
- Assess go-live results

#### **Process**

Training coordinators, trainers, team members and consultants will develop training materials and carry out end user training. Implementation Team will develop a go-live checklist, including dependencies and estimated elapsed time, schedule go-live, confirm resources, roles and responsibilities, and assess readiness for go-live. With these preparations in place, the Module Team(s) will execute the go-live processes, including conversion and migration of components. Go-live approval will be obtained from the Implementation Team. Following the implementation a Post-Implementation Review will be conducted. The results will be presented to the iNtegrate Steering Committee.

#### **Phase 5: Deliverables**

The iNtegrate Module Teams and consultants will produce the following deliverables in this phase of the project:

- Go-live checklist
- Production system
- Training materials
- Post-Implementation Review

## **6.2 Issue and Risk Resolution and Change Control Processes**

As the project evolves, issues will surface and risk will be introduced to the project. To ensure that issues are managed so that risk is appropriately mitigated and a plan for resolution is completed within ten business days, the following processes will be deployed:

### **6.2.1 Capturing, Monitoring, and Communicating Issues**

The Project Leads are responsible for capturing all identified issues via an **Issues Log** setup in the Communication Center. As issues are raised, the Team leads will log into the iNtegrate Communication Center and open a new issue. The Project Leads will

open the submitted issue, review it to ensure the issue is clearly named, concisely defined and accurate, a priority (high, medium, low) assessed, a responsible party assigned resolution responsibility, and an estimated date for completion given. The Project Communication Center Issue tracking capability will be use to manage issue resolution. The Project Leads will monitor the issues to ensure that they are worked to closure. When an issue is resolved, the Project Leads will update the issue from Open to Resolved and add a description of the solution and indicate the date resolved.

### **6.2.2 Escalating Issues**

Issues that cannot be resolved by the Project Leads will be documented and communicated to the iNtegrate Steering Committee. The objective of this process is to resolve all issues within five (5) business days of being escalated to the iNtegrate Steering Committee.

The iNtegrate Project Manager will monitor the progress of issue resolution via the communication center and will inform the iNtegrate Project Director of issues to be escalated to the iNtegrate Steering Committee.

## **6.3 Documentation Management**

To ensure that the project processes described in this section are being followed and that strategies, plans, issues, decisions, solutions, status, and results can be accurately recalled and communicated, the teams will follow the project documentation development and management standards described in this section:

The project team has three primary locations to use for documentation and communication.

- The iNtegrate project website is intended for communicating project information to the greater NSHE community. It will eventually link to an iNtegrate Communication Center that will include documentation, training opportunities, problem resolution methods and other material for users of the system.
- The iNtegrate Communication Center is used for communications through the forums, issue tracking and file storage. Those files stored in the iNtegrate Communication Center will be considered in near final form and can be used across teams for reference.
- NSHE will contract with a hosted service which will provide a tool to manage shared files for project team members. The tool will provide a forum for collaborating on documents, maintaining versions, and controlling access. The tool will typically be used as the location for working documents. These documents will then be posted to the iNtegrate Communication Center when they are in final form and ready for wider distribution.

**Table 6** describes the types of information to be documented, the tools to be used, and the party responsible for the documentation. Templates for all tools listed in Column 1 of Table 6 are contained in the **Shared Drive\Templates and Examples**. Note that the guidelines provided here pertain primarily to project documentation.

**Table 6: Project Documentation**

TOOL	TYPE OF INFORMATION	RESPONSIBILITY	STORAGE & ACCESS
iNtegrate Project Charter.doc	<ul style="list-style-type: none"> <li>Project objectives, organization, scope, and ground rules</li> <li>Project Management and Control</li> <li>Project Facilities</li> <li>Project Processes</li> <li>Issue Resolution Process</li> <li>Communication Plan</li> <li>Conversion Strategy</li> <li>Testing Strategy</li> <li>End User Assistance Strategy</li> </ul>	Project Directors, Functional Council, CedarCrestone Project Director	iNtegrate Shared Drive\Project Management Team\Charter Project Website
[Application] Work Plan YYYYMMDD.mpp	Project tasks, milestones, and percent completed, etc.	CedarCrestone Project Director	Shared Drive\Project Management Team\Project Plans iNtegrate Communication Center for reference
[Module Abbr] Team Training.xls	Required and optional courses by role and team member, courses scheduled, and courses completed	Training Coordinators Implementation team	Shared Drive\Training & End User Support
iNtegrate Communication Matrix.doc	Who, What, When, How Often, and How to communicate project information to project team and NSHE community	Institution & SCS Project Leads, Consultants & Communications Coordinator	Shared Drive\Overall Project Documents\Communications
Communication Center > Issues database	Track status and resolution of project issues	Institution & SCS Project Leads	Communication Center > Issues
[Issue Name] Escalation and Response.doc	Document a specific issue that needs to be escalated for resolution	Institution Module Leads	Shared Drive\Application\Issues When complete Communication Center > Issues
[Module Abbr] Status YYYYMMDD.doc	Weekly team status reports	Institution Module Leads	Shared Drive\Application\Status Rpts
YYYYMMDD [Meeting Title] Agenda.doc	Agendas for project, team, or committee meetings	Meeting facilitator	Shared Drive\Appropriate Module Folder
YYYYMMDD [Meeting Title] Minutes.doc	Minutes for project, team, or committee meetings	Meeting facilitator	Shared Drive\Appropriate Module Folder
[Module Abbr] IDP YYYYMMDD [Topic] Agenda.doc	Special agenda for IDP session	CedarCrestone Functional Consultant	Shared Drive\ [Application]\[Module]\IDP
[Module Abbr] IDP YYYYMMDD Workbook [Topic] Version.doc	Document IDP results, decisions, setups from IDP session	Module Team and CedarCrestone Functional Consultant	Shared Drive\ [Application]\[Module]\IDP
[Module Abbr] IDP YYYYMMDD [Topic] Minutes.doc	Document decisions and table setup values from IDP session	NSHE Functional Team Lead or appointee	Shared Drive\ [Application]\[Module]\IDP

[Module Abbr] IDP YYYYMMDD Assessment.doc	Participant evaluation of IDP session	CedarCrestone Functional Consultant	Shared Drive\ [Application]\[Module]\IDP
[Owner] [Module Abbr] ### Mod Request.doc	Draft Functional request for software modification.  Approved Functional requests  Owner is either NSHE or institution abbreviation	Consultants and NSHE Functional Leads	Shared Drive\ [Application\ Modifications  Shared Drive\ Modifications\Functional Specs
[Owner] [Module Abbr] ### Technical Spec.doc	Draft Technical specification for software modification, report, interface, or data conversion programming  Final Technical specifications  Owner is either NSHE or institution abbreviation	Consultants and NSHE Technical staff	Shared Drive\ Technical\ Modifications  Shared Drive\ Modifications\Technical Specs
[Module Abbr] Reports Inventory.xls	Inventory of current reports and list of planned reports	Functional leads	Shared Drive\[Application] [Module]\Reports
[Module Abbr] ### [Report] Spec.doc	Specifications for custom report  Approved Functional Report spec	Functional Lead & Report Programmer	Shared Drive\[Application] [Module]\Reports  Shared Drive\ Modifications\Functional Specs
[Module Abbr] Bus Process Log.doc	Log status of business process design	Functional Lead	Shared Drive\[Application] [Module]\IDPs
[Module Abbr] BPG Title.doc	Step-by-step guide for conducting key business processes using PS	Functional Lead or SME	Shared Drive\[Application] [Module]\Business Process Guides
[Module Abbr] [Conversion Table] Mapping.xls	Template for mapping legacy data to PeopleSoft tables	SMEs and technical staff	Shared Drive\[Application] Conversion
[System] [Title] Interface Mapping.xls	Template for mapping data from 3 <sup>rd</sup> party software source to PeopleSoft tables. Should be included with a Mod/Report Request	SMEs and technical staff	Shared Drive\[Application] Interfaces
[Module Abbr] Security Roles .xls	Template for defining access and restrictions by user role	Functional Leads, SMEs and Security Technical Team	Shared Drive\[Application] \Security
[Module Abbr] Test Script Log.doc	Log of test scripts ready for use	Functional Leads	Shared Drive\[Application] [Module]\Testing
[Module Abbr] [Business Process] Test Script.doc	Template for developing test scripts	Functional leads	Shared Drive\[Application] [Module]\Testing\Test Scripts

### 6.3.1 Naming Conventions

The template titles listed in **Table 6** above will serve as standard naming conventions for project file names. Documentation titles should follow the same conventions minus the program extension. When creating a document or saving a file, author will enter the appropriate information in the template by replacing the generic names in brackets with

specific names. Naming and numbering schemes for reports, interfaces, and modifications should use these same naming guidelines and abbreviations. Guidelines for these author-entered items are as follows:

- [Application]: 'CS' for Campus Solutions, 'CR' for Customer Relationship Management, 'HR' for Human Resources, 'FN' for Financials.
- [Module]: Use the following abbreviations to represent the respective modules:

**Customer Relationship Management (CR) Modules:**

SL = Sales (Recruiting)

MA = Marketing

**Human Capital Management (HCM) Modules:**

AW = Administer Workforce

BB = Base Benefits

PM = Position Management

PR = Payroll

RW = Recruit Workforce

**Campus Solutions Modules:**

AA = Advising

AD = Admissions

AS = Academic Structure

CC = Campus Community

FA = Financial Aid

SF = Student Financials

SR = Student Records

**Miscellaneous Naming Standards**

- In file names, leave spaces between words. Do not use an Underscore character between words.
- Capitalize the first letter of all words, except articles and prepositions, in document titles and file names.
- For titles or file names that include dates, use this dating format: YYYYMMDD.

**6.3.2 Documentation Lifecycle**

The lifecycle of project documentation outlined in **Table 6** above will typically follow these stages:

1. Meeting discussion / whiteboard graphic / brainstorm

- To reduce confusion and rework, key points should be documented. All standing meetings and most working meetings will assign a dedicated scribe to make sure that key points are recorded.
2. Work-in-progress documentation
- Project team members are encouraged to use the appropriate Microsoft Office tool for their documentation, including: Word, Excel, PowerPoint, Project, and Visio.
  - WIP documentation should be stored on the appropriate shared drive.
  - This file share is dedicated to the iNtegrate Project. It is secured by SCS and is backed up daily.
  - There are individual folders for each of the primary modules.
3. Completed documentation
- Completed documentation should be stored in the “Files” page of the iNtegrate Communication Center.
  - The iNtegrate Communication Center is hosted by CedarCrestone. Security is administered SCS.
  - Titles, descriptions, topics, subtopics, and document types should be entered for all completed topics.
  - These completed documents are a valuable product of the iNtegrate project and will be referenced during and after the project. They will certainly be helpful during upgrades and may be helpful when reapplying customizations during updates and fixes.

## 7.0 COMMUNICATION STRATEGY

The purpose of this section is to present a Communication Strategy to ensure the timely communication of appropriate information to the NSHE community about the iNtegrate Student Information System Project, including its benefits and limitations, features, project funding sources and costs, implementation progress, and impact upon business and academic administration practices. This undertaking will cause considerable change in the activities of NSHE administrative staff, and, to a lesser degree, in the way faculty and students exchange information and send and receive information to and from the NSHE community. This strategy defines the goals, strategies, methods, timelines, roles and responsibilities for communicating information about the project to the NSHE community. Understanding that this project will be a learning experience, changes to this strategy may be made after its initial distribution with alerts to the community posted appropriately.

### 7.1 *Communication Goal and Objectives*

As NSHE begins the implementation of a crucial and expansive replacement of its student information systems, the iNtegrate Student Information System Project's executive sponsors have committed to the goal of ensuring the continuous communication of project objectives and progress to audiences both internal and external to Nevada's higher education system.

**The iNtegrate Project's Communication Goal** - Utilizing various available media, NSHE will work to ensure that iNtegrate Student Information System Project information is distributed in an organized manner so that informational and educational communications are consistent with the overall themes and messages of the implementation. The objectives are:

- To accurately **distribute information** in a timely manner concerning important implementation benchmarks and progress to the NSHE community and outside audiences.
- To **use various media** to provide multiple sources from which information concerning the implementation can be accessible.
- To **eliminate confusion** among implementation participants by providing a sole directive and source from which all project information originates.
- To **provide clear channels** of communication within which implementation staff can operate to lead to an expedited solution to issues that arise during implementation and after its completion
- To ensure all information available is **updated and accurate**.
- To **encourage feedback** from the entire NSHE community and outside audiences

## **7.2 Approach to NSHE-wide Communication**

All communications that include audiences outside the iNtegrate teams and committees, concerning the iNtegrate Student Information System Project (including, but not limited to, progress, issues, benchmarks and general announcements) must be authorized by the iNtegrate Project Director. Such authorization will be granted upon the completion of each institution's communication plan. The Project Director will designate the iNtegrate Project Manager as the Communications Coordinator for the iNtegrate Student Information System Project. The Project Manager will rely heavily on the contributions of institution and SCS project leads, institution module leads and the CedarCrestone consultants in developing iNtegrate communications. These are the things the Project Manager will do as Communications Coordinator:

- Ensure adherence to this strategy and overall project objectives
- Ensure proper communication lines are established and utilized correctly throughout the life of the implementation
- Establish schedules for continuous communication to both the community and outside audiences

The iNtegrate Project Director will work with the NSHE Public Information Office to coordinate NSHE-wide communications among the public information offices at NSHE institutions. The NSHE institutions' public information officers will serve as the clearing house for external inquiries concerning the implementation and will determine the appropriate means of distributing a response. Institution public affairs and/or communications representatives will serve on the iNtegrate Communication Team.

The Executive Vice Chancellor holds the ultimate authority to ensure that all communications are consistent with Board of Regents policy and procedures and that each communication helps to advance the overall success of the project implementation.

### **7.2.1 Critical Communication Success Factors**

The following conditions are critical to the successful execution of this Communication Strategy:

- Communications efforts are validated by the iNtegrate Implementation Team and iNtegrate Steering Committee through feedback from the larger NSHE community.
- Financial support and resources are needed to deliver effective communication materials and events.
- Feedback is kept confidential and used constructively to improve communication effectiveness.
- Innovative use of new media technology is encouraged.

## **7.2.2 Leadership Involvement**

Responsibilities for the iNtegrate Project Director, Project Manager, Project and Module Team Leaders, and CedarCrestone Consultants include, but are not limited to, the following:

- Planning and coordination of communication activities
- Contribution and participation to communication efforts and team meetings, communication events and required training sessions.
- Communicate the goals and benefits of the project within their spheres of influence.

## **7.3 Communication Plan and Effective Practices**

Sections 7.3 through 7.5 describe the major elements of the NSHE iNtegrate Communication Plan.

### **7.3.1 Leveraging Communication Efforts**

Following are a few techniques to help leverage communication efforts and sustain desired behavior:

- Develop a plan that is dynamic, interactive and integrated with the overall project plan.
- Incorporate communication initiatives into key project events.
- Develop a clear, expeditious approval process.
- Deliver messages in a style that underscores the new direction, behaviors and results of the project.

### **7.3.2 Internal Communication Effective Practices**

The Communication Team will provide continuous communication of important changes to project implementation activities and status as well as celebrate important benchmarks with the NSHE community. The iNtegrate Implementation Team will utilize all available means to ensure total coverage of the progress and expanded services provided with the installation of each module.

- Encourage open two-way communication between those involved in the implementation and those affected by it.
- Promote better awareness of each stage of the implementation process and what those changes mean to the entire NSHE community
- Provide continuous, accurate and timely information to promote a better understanding of why NSHE is engaging in the project and how the educational mission of each institution in the system is furthered through its results

### **7.3.3 External Communication Effective Practices**

The iNtegrate Student Information System Project requires the investment of state resources and it is important to realize that continued communication with audiences outside the system is crucial to the success of the implementation. This project represents improvements to the services each college or university can provide to increase the standard of higher education available to the community and to the state of Nevada. Students, both present and prospective, as well as alumni, legislative and community members will benefit from the advances made during this implementation. The timely and continuous distribution of information to these audiences is crucial to the overall value of this initiative for the NSHE community and all those associated with it. The iNtegrate Communication Team will:

- Promote better awareness of why NSHE is replacing its core student information systems and the processes involved
- Create a better understanding of how the implementation affects audiences outside of NSHE
- Provide continuous, accurate and timely information to inform audiences outside of NSHE
- Develop a clear, expeditious approval process
- Deliver messages in a style that underscores the new direction, behaviors and results of the project

## **7.4 iNtegrate Student Information System Project Messaging**

This section of the plan expresses, in the simplest terms, the message that the implementation team hopes to convey to its target publics. Variations on these broad messages should be carried in all of its communications during the course of the implementation – internal memoranda, press releases, speeches, brochures, and other publications or medium.

### **Messages to NSHE community**

The following are examples of key messages for inclusion with internal communications:

- The implementation will expand upon the current services used by the colleges, universities and system and provide a number of new services and possibilities.
- The implementation is a timely process and the NSHE community is encouraged to provide feedback and ask questions as opportunities will be available to do so.

- The students, faculty and staff are our most important resource for determining the success of this implementation.

### **Message to Audiences External to NSHE**

- The implementation, with each stage, will build upon the education mission of the each college or university and allow for increased services to benefit the community.
- The implementation is a vital step in ensuring that NSHE stays at the forefront of excellence for higher education in Nevada.

## **7.5 Communication Priorities**

Communication priorities refer to media used to emphasize the preceding section of the plan: an emphasis on student, faculty and staff communication, an emphasis on communication between implementation staff members, increasing the visibility of the implementation, information campaigns and meetings, and other undertakings necessary toward the objectives of this plan.

### **Audiences**

Communication of project activities, status, updates, milestones and notice of events should be directed to the following audiences:

1. Executive Officers
2. Executive Sponsors and Steering Committees
3. Implementation Team
4. Pilot institution functional and technical staff
5. Non-pilot institution functional and technical staff
6. Institution department heads
7. Institution staff
8. Institution faculty
9. Institution students
10. Board of Regents
11. System staff
12. Alumni
13. Community members
14. All-inclusive general communications

### **Media**

The following media are at the core of achieving comprehensive coverage:

- Internal system and institution email messages
- Internal system and institution email newsletters
- Institution Division and Department newsletters
- Institution publications including:
  - Faculty newsletter

- Staff newsletter
- Student publications
- Alumni Magazine(s)
- iNtegrate Student Information System Project Implementation website and Communication Center
  - Public area
  - Protected access area (for implementation staff)
- Institution and SCS iNtegrate Student Information System Project web sites and web pages
- Internal System and Institution meetings

### **7.5.1 Performance Indicators**

Performance indicators establish a standard by which communication efforts can be measured. The iNtegrate Student Information System Project implementation team will measure the success of the communication plan by whether it achieves:

- NSHE community awareness of the current status of the implementation.
- NSHE community awareness of the improvements to services currently offered and the new services now available.
- Public awareness (external audiences) of the benefits of the implementation.
- Greater understanding of the change processes as a result of the implementation and the resolution of any issues that arise as a result.
- Continued evolution of the message as the implementation gains general acceptance.
- Ultimate acceptance of the implementation.

### **7.5.2 Approval Process**

The process for reviewing or approving iNtegrate communications is:

- 1) Institution Module Leads, Project Leads, CedarCrestone Lead Consultants Project Governance Committee Chairs and Executive Sponsors may submit updates, event notifications, newsletter articles, press releases, Board documents and other communications material to the iNtegrate Project Manager for review and subsequent approval by the iNtegrate Project Director.
- 2) Project Status Reports will be submitted consistent with the schedule outlined in Section 4.3 and will be approved by the iNtegrate Project Director.
- 3) Approved communications will be shared with the iNtegrate Communication Team for development of additional public information media.
- 4) Institution Project and/or Module Leads will be notified immediately by the Communications Coordinator when communications are approved for their use in institution specific communications.

### **7.5.3 Communication Schedule**

The iNtegrate Project office will adhere to the following communication schedule:

- NSHE iNtegrate Website Updates – At least Monthly and as required

- Project Status Reports – Monthly (to Steering Committee and Executive Oversight Committee)
- Project Summaries – Monthly (on iNtegrate Website)
- Project Activities – Monthly (on iNtegrate Website)
- Major Milestones – As achieved based upon Project Work Plan
- Board of Regents Updates – At least once per year

Each institution may determine its own schedule within its institution communication plan.

## 8.0 DATA CONVERSION STRATEGY

The purpose of this section is to describe the scope and processes for converting legacy data into the Student Information System.

### 8.1. Conversion Scope

It is typical of most conversion projects to try to convert as much data into the new platform as possible. However, it can be counter-productive to convert data just because it exists. Some data may be better served by not being converted or by being transformed into another usable format. The scope of the data conversion effort will be determined by the key strategies outlined below.

#### 8.1.1 Data To Be Converted

As a general rule, data will only be converted if they have been identified by project functional teams as critical to key business processes or to meeting externally imposed regulations.

These will be reviewed by module team members in the context of the Interactive Design and Prototyping (IDP) sessions for the various PeopleSoft Campus Solutions modules and the respective business processes that they support.

#### 8.1.2 Data Conversion Timeline

The timing strategy for converting data is based on two key criteria:

1. When will the converted data be needed in the production database in order to meet the targeted go-live dates, which have been staggered to coincide with the administrative activities and information needs of the academic calendar?
2. What are the dependencies of each conversion category on other categories?

Based on these criteria, a logical conversion scope and sequence will be determined, which will include the following milestones for each conversion category:

- When the mapping of a specific conversion category should be complete
- When the extraction program for this category should be complete
- When testing of this conversion category should be complete
- When the data is needed in the production database
- When the converted data is required in production

#### 8.1.3 Conversion Strategy

Wherever possible utilize CedarCrestone's developed data migration scripts for migrating data to the target PeopleSoft database. Because of their knowledge of legacy data, Module Teams will be responsible for mapping their data to PeopleSoft. However, SCS will have primary responsibility for extracting data from legacy systems. Each

institution is responsible for extracting any locally housed data and ensuring their data is cleansed.

## 9.0 TESTING STRATEGY

The purpose of this section is to describe the testing processes that will be utilized through the implementation of the Student Information System.

### 9.1 Testing Processes

Planning and preparing for testing are as important as conducting the testing. Thorough planning is essential to ensure all processes are adequately tested prior to Production Use. During the early analysis and planning phases of the Student Information System Project test plans are created for each type of test to be conducted, which identifies testing requirements, objectives, and schedules.

The execution of a comprehensive testing plan ensures a fully functioning System. During the testing phase of implementation, CedarCrestone guides the Student Information System Project team and users through System/integration, user acceptance, and parallel testing. CedarCrestone involves users in meetings to define the user acceptance of the System. The users provide valuable insight on their day-to-day activities and dependencies within the System. Including users in the user acceptance planning increases their involvement with the implementation and ultimately leads to a more organized and successful test.

(Source: SOW)

#### 9.1.1 Unit Testing

The goal of unit testing is to test setups, assumptions, business processes, converted data, and customized code for a specific component. The functional team is responsible for developing and executing unit test cases of setup, assumptions, and business processes. This confirms the validity of the design and the accuracy of the business process documentation. The development team is responsible for developing and executing the unit test cases for converted data and customized components. Coding and unit testing will be iterated until all conditions are successfully tested. This testing is the final development activity for an individual component. The unit test plan and results are reviewed according to the quality assurance plans in place for the project before migrating the code from the development to the test database.

#### 9.1.2 System Integration Testing

System/Integration testing ensures that all processes are tested in sequence and data flows from one business process into the next as expected. Simple conditions are tested first, followed by increasingly complex conditions until all inputs, processes, and outputs have been thoroughly tested. This test validates that the system and the test documents are ready for user acceptance testing. Test documents include a sign off procedure for the users to update as testing is complete.

#### 9.1.3 Customization Testing

Module Teams will develop and execute unit test scenarios for each modification to any type of PeopleSoft object, such as a record definition, programming code, report, interface, screen, menu, workflow process, or new application. These test scenarios are developed to assure that the customization has been successfully completed and the underlying processes are performing correctly within the module.

If the expected results are not achieved during testing, problems will be documented and reported on a test incident report. The customized objects will be reconsidered and reviewed by the developers to determine whether the customization was improperly performed, or if there is a problem with the validity of the test case scenario and expected results. Corrections will be made as required and the module will be subject to re-test until the expected results are achieved.

#### **9.1.4 Performance Testing**

As the implementation progresses, performance and stress testing methodologies will be incorporated into the project planning to validate the performance levels and resolve any issues prior to go-live. Post-production, these methodologies can be leveraged for on-going monitoring.

#### **9.1.5 Acceptance Testing**

During user acceptance testing, end users execute all application functions related to their business processes. Acceptance testing confirms the System meets the business requirements of NSHE, including the functionality requirements, and also verifies the business processes for the Student Information System Software are complete, well understood, and well documented.

## **9.2 Participants**

Representatives from across the University will be involved in the testing of the PeopleSoft system. This includes but is not limited to:

- iNtegrate technical team members
- iNtegrate core functional team members
- Technical and functional consultants from implementation partners
- Subject Matter Experts (SMEs) and other members of the campus community that have become engaged in the implementation.

## **10.0 END USER ASSISTANCE STRATEGY**

The purpose of this section is to present a strategy that encompasses the following end user support service components:

- Documentation
- Training
- Help Desk

These components must be integrated through common objectives and oversight, and through integration of materials and resources. To achieve this, institution help desk coordinators will work with the Implementation Team and Module Leads to develop an “End User Assistance Plan.”

### **10.1 End User Documentation Services**

#### **10.1.1 Documentation Objectives**

1. Provide flexible documentation tools to guide core functional users, faculty, and students in performing tasks relevant to their respective roles using the new software.
2. Follow a consistent style within the context of the iNtegrate style guides for printed and web-based media.
3. Follow a revision and control process.
4. Validate accuracy of information in all end user documentation through thorough testing.

#### **10.1.2 Documentation Approach**

Each module team will be responsible for developing the end user documentation for its respective business processes. The Business Process Guide is the foundation for documentation and training materials. The Module Teams will be responsible for identifying each business process that requires additional documentation for ongoing process support. The Module Team(s) will identify a trainer who will adapt the information in the Business Process Guide for documentation materials.

#### **10.1.3 End Users’ Documentation Needs**

It is anticipated that documentation material will be delivered primarily through electronic media and available through a project website. The following documentation and training materials are examples of those that will be available:

- Training Manuals
- Business Process Guides
- Reference Guides
- Frequently Asked Questions
- Job Aids

### **10.1.4 Documentation Development**

Implementation Team will be responsible for planning and coordinating the document development and revision process. An outline of the steps is presented below.

1. The foundation of good documentation is the participation of those knowledgeable in the business processes within the module teams. Team members will leverage current documentation about current processes as well as their experience.
2. During IDP sessions workbooks provided by CedarCrestone will be modified and adapted to the scope of implementation and functionality needs at NSHE.
3. Module teams will summarize the results of their meetings into Business Process Guides, which will serve as the primary end user documentation. The Business Process Guides will follow a common format using the **Business Process Guide Template**.
4. The Business Process Guides will be used during testing. Further modification may be made based upon feedback from those involved in testing.
5. The Business Process Guides will subsequently provide the framework for End User Training materials.

### **10.1.5 Maintenance and Distribution**

End user documentation will be stored on the iNtegrate Communication Center, enabling immediate updating and self-service access as needed. Additional documentation will be available in the User Productivity Kit (UPK).

Each Module Team Lead will be responsible for assuring that documentation relevant to his/her area of responsibility is maintained and updated.

## **10.2 Training Strategy**

### **10.2.1 Training Objectives**

The goal for training is to provide opportunities for NSHE staff to enhance their skills, to improve customer service, streamline business processes, reduce operations costs, and increase systems management capability. The training strategy is:

1. Develop a process-based approach to ensure that all training is specific to the job tasks.
2. Work with administrators to determine the training needs of the management and staff in their areas.
3. Apply a just-in-time schedule for training end users.
4. Provide training through technology where feasible to enable users to complete training with as much convenience as possible.
5. Develop a training curriculum using a variety of tools to match the need for initial training within the available project resources and provide the foundation for an ongoing training program.

## 10.2.2 Training Approach

The first step in defining the training approach is the development of a training plan for initial implementation. The Module Team Lead will be responsible for developing this plan which will include defining a training curriculum and a schedule for developing materials and delivering training. It is anticipated that the training curriculum will use a modular approach that is business-process oriented and use a variety of delivery methods. For example:

- Face-to-face training using both trainers and Subject Matter Experts.
- Web-based resources for self-paced training including documentation, process guides, training materials and web-based tutorials.
- Train the trainer offerings where module team members will train key users who will then be responsible for training others in their units.

Materials developed for initial implementation will be available to meet ongoing training demands.

## 10.2.3 Training Processes

There are four processes essential to successfully implementing end user training: communication, enrollment, delivery, and assessment. Outlined below are activities to be conducted within these processes.

- **Communication Processes** - Using project communication methods, the Implementation Team will be responsible for communicating the information to end users regarding end user training.
- **Enrollment Processes** - The Implementation Team will be responsible for developing a training enrollment process that entails the following activities:
  - Scheduling courses, instructors, and facilities
  - Setting and enforcing course eligibility
  - Registering learners and maintaining enrollment and completion records
  - Correlating security profiles with training needs
- **Delivery Processes**

Delivery of end user training will depend on the type of end user, the number of users who need to learn a specific process, and their location. The Implementation Team will work closely with administrators to determine specific combinations of training units needed for NSHE staff and faculty members. This information will be documented in the Training Plan.

- **Assessment Processes**

An assessment process will be developed to evaluate the following:

- Prerequisite skill levels for course entry
- Competency levels for course equivalency
- Mastery levels for satisfactory course completion
- Quality and effectiveness of the training provided

## **Training Environment**

Once an end user training plan has been developed, the training team will be responsible for setting up the training schedule and securing facilities and equipment for hands-on classroom training and open labs, including desktops with the necessary network connectivity, as well as projection and other presentation equipment. The Training Team working with the Security Team will design a PeopleSoft technical environment for training, including training databases with appropriate security.

## **10.3 Support Services**

Included in this description is a support model which outlines a preliminary strategy, objectives and approach.

### **10.3.1 Help Desk and Support Service Objectives**

1. Train Help Desk staff in PeopleSoft functions and related hardware and browser issues.
2. Accept, document and track service calls.
3. Route trouble tickets to the appropriate technical or functional specialist for resolution.
4. Validate satisfactory resolution of each trouble ticket.
5. Analyze problem reports to serve as feedback for continued improvement of business processes, system enhancements, training, and documentation.
6. Provide a framework for assigning users with the security access to PeopleSoft which is appropriate to their role.

### **10.3.2 Approach**

End user assistance for iNtegrate SIS implementation will be supported by a central support organization. The proposed model is based on both current practices at NSHE and an effort to adopt best practices. This model utilizes centralized receiving and tracking of all problems, centralized response to basic or common problems, such as system access and basic system navigation, and referral to technical and functional specialists for more complex problems. If a problem cannot be resolved by NSHE staff, an NSHE technical specialist will open a case with the hosting vendor, CedarCrestone, or with PeopleSoft.

The specifics of the support structure will be defined through the Help Desk plan.

## 11.0 POST-IMPLEMENTATION STRATEGY

The Post-implementation strategy must address two critical concerns: (1) The transition from familiar to unfamiliar terms, forms, user interfaces, and processes, and (2) the ongoing operation of the new system. Budget has to be identified for system sustainability and staffing needs. The iNtegrate Implementation team will develop a Transition Plan by second quarter, 2009 which will address the following issues:

- New Roles and Responsibilities in Functional Areas
- New Roles and Responsibilities for service providers in System Computing Services and individual institutions
- Implementing desired PeopleSoft functionality not included in the iNtegrate Project
- Sustainability of the PeopleSoft system
- Upgrades
- Cost Sharing and Cost Recovery