

**Institution Submitting Request:** University of Utah  
**Proposed Title:** Doctor of Dental Surgery (DDS)-Awarding Program  
**School or Division or Location:** University of Utah  
**Department(s) or Area(s) Location:** Dental Education  
**Recommended Classification of Instructional Programs (CIP) Code<sup>3</sup> :** 51.0401  
**Proposed Beginning Date:** 07/01/2012  
**Institutional Board of Trustees' Approval Date:** MM/DD/YEAR

**Proposal Type (check all that apply):**

R401-4	
<i>Items submitted will be reviewed by the Office of the Commissioner of Higher Education (OCHE), then forwarded to the Chief Academic Officers (CAO) and Program Review Committee (PRC) before being presented to the Regents. K-12 Personnel Programs are also reviewed by appropriate officials and faculty of the schools and colleges of education. See R401-4.2.2 for all programs requiring specialized reviews.</i>	
Section #	Item
4.1.1	<input type="checkbox"/> Non-Credit Certificate of Proficiency Eligible for Financial Aid <input type="checkbox"/> Credit Certificate of Proficiency Eligible for Financial Aid
4.1.1	<input type="checkbox"/> Non-Credit Certificate of Completion <input type="checkbox"/> Credit Certificate of Completion
4.1.9	<input type="checkbox"/> Fast-Tracked Certificate
4.1.2	<input type="checkbox"/> Associate of Applied Science Degree
4.1.3	<input type="checkbox"/> Associate of Science Degree <input type="checkbox"/> Associate of Arts Degree
4.1.5	<input type="checkbox"/> Bachelor's Degree
4.1.6	<input type="checkbox"/> K-12 School Personnel Programs
4.1.7	<input type="checkbox"/> Master's Degree
4.1.8	<input checked="" type="checkbox"/> Doctoral Degree

**Chief Academic Officer (or Designee) Signature:**

I certify that all required institutional approvals have been obtained prior to submitting this request to the Office of the Commissioner.

\_\_\_\_\_  
Signature

Date:

Printed Name:

**Executive Summary  
University of Utah  
Doctoral Degree in Dentistry  
2/28/2012**

**Program Description**

The University of Utah requests approval to award the Doctor in Dental Surgery (DDS) degree by a newly established School of Dentistry (currently under review). The DDS degree will be awarded to those predoctoral candidates who have passed each class with at least a C grade in relevant course work and demonstrated requisite competencies for becoming excellent dental clinicians and compassionate and ethical dentists. DDS graduates from this program will be trained to employ their dental and medical skills in partnership with other healthcare providers in order to serve our community and the world around us and to further our understanding of the therapeutic management of oral structures and functions through research and its translation. Twenty-five percent of the curriculum for the DDS degree is already in place, functioning and accredited by the American Dental Association (ADA) through a University of Utah-Creighton contract with the current Regional Dental Education Program (RDEP). This foundation will be expanded to a four-year, top-tier DDS degree-granting program.

**Role and Mission Fit**

The purpose of preparing highly qualified predoctoral students to receive the DDS degree is to improve the health of our community through education, research, clinical service and appreciation for diversity. We share this purpose with the University of Utah and the Board of Regents. We support the stated mission of the University of Utah as found in Regents' Policy R312. Our primary purpose is to establish an environment that promotes teaching/learning and to do so in a manner that reflects the values cited in our mission statement. Our mission in the delivery of quality and comprehensive care supports the University's mission to be comprehensive and to exist for the betterment of society. Our mission to cultivate research activity enhances the University's goal of conducting research to improve teaching and discover knowledge. Our mission of service to community and to the profession supports the University's goal of service to others and the recognition of the inalienable work of each individual.

**Faculty**

The faculty who will provide the training required for awarding the DDS degree will be associated with a new University of Utah School of Dentistry and by the full implementation of the program (2016/2017 academic year) will be constituted as described in the table below.

Summary Table

	Tenure#	Contract#	Adjunct#	Total
Faculty with Doctorates	32	10	45	87
Faculty with Master's	-	-	-	
Faculty with Bachelor's	-	-	-	
Others	-	-	-	

**Market Demand**

According to the Utah Medical Education Council (MEC), there are insufficient dentists establishing practices in Utah to maintain the current dentist-to-population ratio (56.8/100,000 population), which is below the national average (59.8/100,000). The 2008 MEC report indicates that we need 75-85 new dentists/year with a net increase of 36-40 per year to maintain our current ratio. That Utah has need for

additional dental manpower is further supported by an American Dental Association (ADA) report that the Utah dental workforce is significantly lower than those in the Pacific, New England or Middle Atlantic regions and even some of the mountain states like Montana. It is also suggested that the current number of Utah dentists is declining, reflecting a trend that is also occurring at the national level. The declining numbers are likely to further reduce the Utah dentist population ratio, especially in light of the fairly robust Utah population annual growth of approximately 1-2%. The following reports support this conclusion.

- In 2009 and 2010 there was only an annual net increase of 18 dental licenses/year compared to the annual average of 33 new licenses in Utah for 1998-2008 (in 2010 more dental licenses expired than were issued).
- In 2006-2010 there was an annual increase of 22 dental malpractice insurance policies; however, in 2010 there was a net decrease of 4 policies.
- Based on ADA reports, fewer Utah students are returning to Utah to practice because of economics, lower fees/service, and skyrocketing debts resulting from being forced to attend expensive out-of-state public and private dental schools.
- The shortage of dentist in Utah is especially severe in rural areas that offer fewer economic incentives than larger metropolitan regions located along the Wasatch front.

### **Student Demand**

The profession of dentistry provides a medical career that has a special appeal to Utah students. This is due to its high professional regard, opportunities for entrepreneurial independence and satisfying professional development, exceptional economic benefits and a desirable life-style option. Consequently, the ADA has reported that Utah has the highest applicant rate for the dental schools in the country. This is reflected in the fact that 170-200 applications are considered annually for the RDEP program at the University of Utah. The ADA also reported in 2004 that 168 first-year students who claimed Utah as their residence were matriculated in dental schools throughout the country. Although data are not available, it is very probably that approximately 2-3 times this number actually applied as the acceptance rate for dental school has been approximately 50%. Despite this historically high demand, a full 4-year, state-supported dental program has not been available to Utah residents. More recently, there has been a disturbing trend that tuition and fees for dental programs, especially those in expensive private institutions and those available to out-of-state students in public schools, have skyrocketed. Consequently, it is typical that total expenses for Utah dental students are anywhere from \$85,000 to \$115,000/year. Thus, by the time these students earn their DDS degree, they can have debt approaching \$0.5 million. It is expected that the prospects of such staggering and seemingly escalating debt will make a dental education inaccessible to many Utah students and force these student to select less desirable, but more affordable careers. This appears to be already occurring based on recent reports that Utah first-year dental student declined from 168 (2004) to 134 (2008), despite the fact that the number of graduates from Utah universities has been steadily increasing. It is proposed that the most appropriate strategy to address these undesirable circumstances is to establish a fiscally sound program that awards the DDS degree and fully utilizes the outstanding resources of the University of Utah to offer an affordable high quality dental education to qualified in-state residents.

**Statement of Financial Support**

The following funding will be generated:

- Appropriated Fund.....
- Special Legislative Appropriation.....
- Grants and Contracts.....
- Special Fees/Differential Tuition.....
- Other (Clinic Income).....

**Similar Programs Already Offered in the USHE**

There are no similar programs offered in the USHE.

## **Program Description-Full Template**

### **University of Utah Doctor of Dental Surgery (DDS)-Awarding Program 2/27/2012**

#### **Section I: The Request**

The University of Utah requests approval to establish a DDS-awarding program beginning July 2012 in order to receive the first entering class by Fall Semester 2013.

#### **Section II: Program Description**

##### **Complete Program Description**

The new School of Dentistry at the University of Utah (see accompanying R401 proposal for a description) will award the Doctoral of Dental Surgery (DDS) degree to those graduate students who successfully complete the graduate degree program accredited by the Commission on Dental Accreditation of the American Dental Association. Courses of the DDS program will be available only to students who have been admitted to the newly established School of Dentistry. Students receiving the DDS degree will have satisfactorily completed all prescribed courses with at least a minimum C grade.

##### **Purpose of Degree**

The University of Utah is the only academic medical center in the State of Utah. Collaboration with other health care professions will enhance the dental student's education leading to the DDS degree. The school mission will be to educate and train excellent, compassionate and ethical dentists to partner with other healthcare providers in order to serve the communities around us and to further understanding of the therapeutic management of oral structures and functions through research and its translation.

##### **Institutional Readiness**

The current administrative structure at the University of Utah Health Sciences is designed to accommodate the awarding of the DDS degree by a new School of Dentistry that will be part of the Health Sciences along with the School of Medicine, College of Pharmacy, College of Nursing and College of Health. The Dean of the School of Dentistry will report directly to the Senior Vice President for Health Sciences.

The DDS degree program will not impact the delivery of undergraduate and/or lower-division education. Courses required for pre-dental pre-requisites are already available.

##### **Faculty**

The following table includes a headcount of faculty who will be associated with the requested dental program.

Faculty Category	Faculty Headcount – Prior to Program Implementation	Faculty Additions to Support Program	Faculty Headcount at Full Program Implementation
With Doctoral Degrees (Including MFA and other terminal)			
Full-time Tenured	2	30	32
Full-time Non-Tenured	3	7	10
Part-time Tenured	0	0	0
Part-time Non-Tenured	35	10	45
With Master's Degrees			
Full-time Tenured			
Full-time Non-Tenured			
Part-time Tenured			
Part-time Non-Tenured			
With Bachelor's Degrees			
Full-time Tenured			

Full-time Non-Tenured			
Part-time Tenured			
Part-time Non-Tenured			
Other			
Full-time Tenured			
Full-time Non-Tenured			
Part-time Tenured			
Part-time Non-Tenured			
<b>Total Headcount Faculty</b>			
Full-time Tenured			32
Full-time Non-Tenured			10
Part-time Tenured			0
Part-time Non-Tenured			45
<b>Total Department Faculty FTE (As reported in the most recent A-1/S-11 Institutional Cost Study for "prior to program implementation" and using the A-1/S-11 Cost Study Definition for the projected "at full program implementation.")</b>		X	64

The Regional Dental Program (RDEP) currently has sufficient faculty and staff to provide the first year of dental education for 10 students. This consists of 4 full-time professors (1 full, 1 associate and 2 assistant professors) in clinical tracks; 2 full-time staff (1 secretary and 1 executive assistant); 7 adjunct assistant professors; 35 adjunct instructors; and 5 contract adjunct professors for basic science instruction. With initiation of the DDS-awarding program in 2013 the entry class will be ~20 students, but the program will have the capacity to handle as many as 50 students under maximum capacity and can expand until reaching a full complement of students in 4 years. The actual numbers will depend on state needs and student demand. We will achieve the number and distribution of faculty at the University of Utah School of Dentistry sufficient to achieve the dental program's stated purpose/mission, goals and objectives and make

the DDS degree program fully compliant with American Dental Association standards. By the first year of the dental program (Fall 2013) there will be 22 fulltime FTE faculty members with 4 administrators and 7 in basic sciences, 6 in the clinical sciences and 5 in research. In addition, there will be 39 part-time faculty with 4 in basic sciences and 35 in the clinical sciences to meet the academic needs of 20 dental students. Each year thereafter faculty will be added incrementally as additional students are included until by the time of full implementation (by 2016/2017, the academic year of the first graduating class), there will be 32 FTE tenure-eligible faculty positions. These faculty members will be evaluated, promoted and tenured according to established Retention, Promotion and Tenure (RPT) Guidelines. Faculty for the DDS program will also include 45 in clinical services (most part-time and non-tenured), 15 in basic sciences and research with an additional 10 full-time non-tenured faculty to meet the academic and clinical needs throughout the 4 years of the program of 80+ students. The evaluation, retention and promotion processes for these non-tenure track faculty are also described in the RPT Guidelines referred to above. All administrators also will be actively involved in clinical, basic science education or research.

The governance for the DDS program will be directed through the office of the School of Dentistry's Dean working with its Executive Committee and College Council and will be consistent with that of other University of Utah colleges with a college-equivalent Faculty Council to formulate policies and exercise primary authority to make decisions related to the DDS program to the extent authorized by University Regulations. The details of this body as well as the other organizational entities and committees of the School of Dentistry are explained in the School of Dentistry (Faculty) Council.

The DDS-awarding program will employ an integrated educational strategy that efficiently utilizes fulltime, part-time and adjunct faculty including clerkship mentors and residents to assist student learning and achieving of competency in all areas. The full-time faculty will, for the most part, be School of Dentistry tenure-track faculty and comprise the core of the administrative, teaching, and research responsibilities while overseeing and coordinating administrative, basic science, clinical course areas and research of the dental program. The following tables represent the FTE full-time faculty positions that will be assigned to administer the DDS-awarding program and the total number of faculty members (both full- and part-time) who will contribute to administration as well as the basic science and clinical course areas. These estimations are based on a 38-week curriculum, full-year curriculum.

The School of Dentistry's Dean, in counsel with the Executive Committee, will have the authority and flexibility to recruit and hire additional faculty as needed for expansion or restructuring of resource allocation as elements of the DDS program are modified, added, or eliminated. The DDS program will rely on a traditional and proven dental education model that takes advantage of the considerable institutional and community resources in both basic sciences and dental practice to support the mission of the School of Dentistry and help its students achieve the competencies requisite for earning the DDS degree. Specifically, when appropriate and practical, the School of Dentistry will identify and compensate exceptional and well-established basic science and practicing health care educators from sister colleges/schools at the University of Utah such as the School of Medicine, College of Pharmacy, College of Nursing, College of Health, College of Social and Behavioral Science and the Graduate School of Social Work for teaching responsibilities in the DDS program. These University of Utah colleges and schools are well-established with exceptional records for health-related education that is critical for comprehensive dental training. All of these programs have expressed a willingness to serve as a resource for basic and clinical medical science instruction as needed. Such a contractual arrangement will use faculty from these other programs as part-time employees in a cost-effective manner. This strategy often precludes the need to hire full-time faculty for all teaching in such a way that does not compromise the quality of teaching or

diminish access to instructors. It also will allow pre-doctoral dental students to learn from the very best educators available at the University of Utah while helping them appreciate other health care strategies and their relevance to dentistry.

In addition, outstanding dental clinicians in the community will be recruited who are highly regarded and well-established practitioners to contribute to the clinical training of the dental students. These practicing local clinicians will provide invaluable experience and perspective essential to proper dental training. By working with fulltime clinical professionals in the DDS program, these part-time clinical faculty will understand and be guided by the institutional expectations to assure the requisite quality control necessary for students to achieve expected competencies. An additional benefit of allowing local practitioners to contribute to the DDS curriculum as part-time faculty will be that the dental community develops a sense of partnership and contribution to dental education. As a result they will be more inclined to take advantage of the School of Dentistry for continuing education and other experiences that embellish their own practice and raise the quality of dental services available to the general public.

Administrative faculty positions in the DDS program often will be occupied by persons with either outstanding basic science or clinical credentials and skills. In such cases, these persons will spend ~10% of their time engaged in mentoring/teaching students in their area of expertise to help take advantage of their extensive expertise and experience as well as provide opportunities of student-administration interaction to be able to better assess the needs and progress of pre-doctoral dental students. Some faculty and practitioners with particularly valuable expertise and background will also have administrative assignments to serve as the chair of their respective clinical departments with the responsibility to organize and direct both full- and part-time faculty members and associated staff in their unit. They will not be expected to spend more than 50% of their time in this administrative role, while the other 50% will be devoted to teaching and mentoring dental students. These faculty and practitioners with dual roles will receive additional compensation commensurate with the extra responsibilities.

The institution's policy for faculty activities will be based on the original contract that defines faculty responsibilities and will be based on specific institutional needs that will be expected to be met by the faculty member. Each contract will be distinct and individualized according to the skill set and experience of the faculty member and the expectations of the DDS program administration and mutually agreed upon before employment can occur. For example, some faculty will be hired with the expectation that he/she will spend a designated percent of time engaged in research activities that include conducting quality research leading to publications in peer-reviewed scientific journals and successful competition for extramural support to further the academic mission of the dental program and make a significant contribution to dental sciences. It is likely that such faculty members will be expected to provide lectures or be the course director for basic science or clinical courses that relate to his/her field of expertise and experience. In addition, most faculty members will also be expected to contribute to the general operation of the pre-doctoral program by participating as members of School of Dentistry committees, student counseling or mentoring, or outreach and service. In order to assure contractual agreements will be met fairly, an annual review of work responsibilities will be undertaken as part of the routine faculty evaluation process and when appropriate, adjustments will be negotiated and implemented to reflect changes.

Faculty members who substantially engage in funded research or contract projects will likely be governed by the rules established and administered by the University of Utah Office of Sponsored Projects. These policies apply equally to all health-related colleges/schools at the University and include rules governing salary and fringe benefits support, accounting and patent expectations, animal care and IRB requirements,



indirect fees to pay for space and resource utilization, compliance with rules of personal and research conduct established and administered by the funding agency, etc.

The DDS program will utilize an educational model and staffing plan that preserves a student to faculty ratio of no greater than 2.0. This ratio will be met with fulltime and part-time professors from the School of Dentistry, and will be supplemented by instructors who possess the appropriate training and experience to provide the necessary mentoring for students to develop requisite competencies and assure safety to both students and patients when applicable.

## **Faculty Development**

The objective of our faculty development program associated with the DDS degree will be to enhance teaching and technical skills in order to assure optimal student training and achievement of dental professional competencies and will be under the direction of the Assist/Assoc Dean for Academic Affairs and Faculty Development in the School of Dentistry. This program will include access to skills development through several mechanisms such as: (i) annual faculty retreat conducted at an off-campus site with overnight accommodations and including continuing education programs; (ii) continuing education courses that satisfy the State of Utah dental re-credentialing requirement of 30 hours over a two-year period; (iii) attendance of annual meetings of local, state or national professional organizations; and (iv) an opportunity to spend ½ day per week for scholarly pursuits such as research and scientific writings. On an annual basis the University of Utah will contribute to the faculty development process by offering courses in effective management to help improve leadership skills of faculty members. The maintenance and further development of the faculty's clinical skills will be encouraged by a contract option that allows full-time teaching and research faculty to engage in private practice opportunities, either intramurally or extramurally. In addition, all faculty offices will have computers with Internet connection and access to list servers, e-mail, the library, no-charge MedLine searches and unrestricted Internet access. Technological support of the teaching efforts of the School of Dentistry will be provided through the University's Division of Information Technology. It is noteworthy that some of the continuing education programs will be conducted in collaboration with other colleges and their faculty in order to optimize resources as well as create opportunities for interaction between the faculty members of different colleges/schools. In addition, there will be calibration programs for the community-based adjunct faculty held semi-annually to be conducted by the fulltime faculty to help ensure consistent teaching in the central and satellite clinics.

The Dean and Assist/Assoc Deans of the School of Dentistry will oversee faculty continuing education, technology skill development, research productivity and scholarship. The School of Dentistry clinical faculty will be responsible for acquiring the number of hours of continuing education required by the state of Utah as practicing dentists to qualify their involvement in the DDS program.

Finally, DDS-degree related faculty will participate in mandatory in-service training for quality assurance issues, emergency preparedness, review of clinical protocols, HIV/AIDS and other communicable disease awareness and management, conflict of interest awareness, mentoring skills development, ethics and domestic violence issues. These courses will be available on either in-person or electronic basis. Full-time faculty members will also be retrained in CPR at the Health Care Provider level every two years on-site by trainers provided by the University of Utah Hospital services.

As previously stated, some initial teaching skills programs will be required for faculty. Additional CE "refresher" and retraining courses will be advertised by announcements in faculty meeting, by flyers, program brochures and other forms of notification. Appropriate CE credit will be given wherever possible to

both fulltime and community-based part-time faculty. The faculty will also be encouraged to attend meetings of professional organizations locally, regionally, and nationally. Funding mechanisms to help cover the expenses associated with meeting attendance and to encourage giving presentations of their scholarly works will be made available to encourage participation in professional dental and related education and biomedical meetings.

Continuing education courses are available through the Utah Dental Association as well as through other local dental association units. In addition, approved CE dental courses offered by outside organizations will be offered on a regular basis and will be advertised to faculty members. Some CE opportunities will be made available on the internet using the University of Utah teleconferencing resources.

Under the management of the Dean and Assist/Assoc Dean of Academic Affairs and Faculty Development, the School of Dentistry will develop a program for faculty participating in the DDS program that will be tracked by an annual performance review and goal-setting process. It will include activities that are coordinated through the departments and structured in such a manner to comply with the University of Utah Faculty Performance Guidelines and University of Utah Regulations (Policy 6-303, Rev. 19: Retention, Promotion, and Tenure) to comply with rank and tenure considerations. These sections will help define and measure faculty development for RPT considerations with the intent to establish and maintain a high level of didactic and academic experiences available to pre-doctoral students by encouraging continual growth in areas of teaching/education, research/scholarly activity/clinical, and service. A program that features nationally recognized clinicians/speakers to present didactic and hand-on courses on contemporary dental practice advances will be implemented under the direction of the Assist/Assoc Dean of Academic Affairs and Faculty Development. The programs will utilize facilities at the dental school equipped with contemporary equipment and materials to attract the clinical faculty. Programs will also be advertised throughout the community, state, and nation to dentists who will attend and pay course fees so these programs can be self-sustaining. Funds will be available initially to get the CE program started. The University of Utah School of Dentistry faculty will have priority access to these opportunities. Vendor participation for these programs, that comply with University regulations, will be considered in order to help develop opportunities for product testing by faculty and students. However, extra care will be taken to avoid conflict of interest issues or inappropriate endorsements as part of the program presentations. The use of the School of Dentistry facilities and personnel for clinical product assessment studies should lead to opportunities to contribute to dental research and skill improvement and contribute to the DDS program.

In addition, clinical faculty will be given the option to participate in release time to engage in either intramural or extramural practice to maintain their clinical skills.

## **Staff**

The University of Utah currently provides a full complement of centralized university resources and associated staff, all of which are readily accessible on the main campus that will support the training of pre-doctoral students in dental sciences. These functions are all fully in service and provide excellent support to existing University of Utah programs and currently cover a full spectrum of services and have done so for many years. These outstanding resources are readily accessible and committed to the success of all University of Utah students and programs and will provide similar comprehensive services to students in the DDS program associated with the new School of Dentistry. This arrangement will help to establish and achieve consistent standards and outstanding support for academics, service, training and research while facilitating collaborative efforts in these areas with existing colleges and programs. This arrangement will

foster a team mindset thereby encouraging a holistic approach in healthcare management. The resources include, but are not limited to:

***Administrative Management:***

University Central Administration

Ombuds Office

Transcript Office

Alumni Association

Space and Planning Office

Travel Office

Public Policy and Administration Office

***Learning Resources:***

Learning Enhancement Program

Health Science Central Library

Network and Communication Services

Science Education and Outreach

***Research***

Grants and Sponsored Projects Management

Technology Transfer

Animal Resource Center

Clinical Research Center

Huntsman Cancer Institute

Antiseizure Drug Development Program

Utah Addiction Center

Resource for Genetic and Epidemiologic Research

### ***Faculty and Staff Management***

Human Resources Office

Disability Services

Equal Opportunity and Employment Services

Presidential Commission on the Status of Women

### ***Student Services***

Alcohol and Drug Education Center

Office of Student Affairs

Campus Recreation Services

Counseling Center

Office of Health Promotion

Insurance Office (student health services)

Office of Residential Living

Student Health Services

Tutoring services office

Student Union Center

Veteran Affairs Office

Women Resource Center

Health Science Book Store

### ***Financial:***

Financial Aid and Scholarship

Financial Accounting Services

Research Accounting Services

Internal Audit Office

Investment Management

Income Accounting and Student Loan Services

Contract Administration

Grants and Sponsored Projects Management

Purchasing

***Custodial, Maintenance and Environment:***

Campus Utility Services

Environmental Health and Safety

Plant Operations

Public Safety Office

Radiological Health Security

Occupational and Environmental Health Center

Office of Custodial and Operational Services

These highly experienced and efficient University of Utah support systems and associated staff will substantially reduce the annual operating expenses for the DDS program by as much as a million dollars while providing the highest quality of specialized services to the dental faculty, staff and student body enabling the dental school to provide exceptional mission-related education, experiences and services at minimal cost. In addition to these institutional support services, the University of Utah DDS program will establish descriptions and resources for 23 staff positions by 2013 in time for the first entering class for the DDS degree. Staff will be added incrementally in preparation for additional classes until there are a total of 52 staff positions by the time the DDS program achieves full operational status for the 2016/2017 academic year. These dental school staff members will be responsible for services that involve information and learning (e.g., audiovisual and computer support) technology, continuing education services, clinical management and support, library, secretarial support, security, supplies (both clinical- and research-related) management and dispersal, public relations and outreach, financial aid, registrar, student services, recruitment, development and fund raising, administrative and administrative clerical staff, research technicians and laboratory assistants.

Because the dental program will have a full complement of staff to attend to secretarial and clerical support, it will not rely on a centralized service per se nor will it require services provided by a separate centralized clerical/duplicating. When fully operational (2016/2017) the DDS degree programmatic personnel will include: a pool of 5 secretaries for the School of Dentistry Dean and other associated senior administrative staff; each of the assistant/associate deans will have 1 assigned secretary. There will also be 5 administrative assistants assigned to provide support to the Dean's office and the associated officers. In addition, there will be supportive staff consisting of 10 part-time assistants/secretaries for department chairs.

## Library and Information Resources

The Spencer S. Eccles Health Sciences Library is located in a separate building immediately north of the Health Sciences Education Building. It accommodates patrons at individual carrels and study tables on three floors. The Public Services Department, located on the main floor, provides assistance in the use of the library, the online catalog, online database services, including PubMed and Internet resources. Computer workstations, laptops and other mobile devices, laser printers, scanners, copiers and audience response systems (ARS) are available for use. Wireless access is available throughout the building.

## Admission Requirements

To meet the requirements of state licensing boards and to gain the necessary background for the study of dentistry, students must complete minimum educational requirements for admission to the DDS program. This process will be directed by the Assist/Assoc Dean for Student Affairs working with the School of Dentistry's Admissions Committee.

Candidates must have completed a minimum of two years of college credits at an accredited college of arts and sciences. While a minimum of 64 semester hours (96 quarter hours) from an accredited liberal arts college is required, most accepted candidates will have completed 120 semester hours (180 quarter hours). The minimum of 64 semester hours (96 quarter hours) must be obtained exclusive of credit in military science, physical education, and nonacademic courses. The 64 semester hours must include the following specific subjects and credit:

Biology .....	6 semester hours
Chemistry, inorganic .....	8 semester hours
Chemistry, organic .....	6 semester hours
English .....	6 semester hours
Physics .....	6 semester hours

The hours listed are suggested as most nearly conforming to a year's work in most colleges. The governing principle shall be that the credit presented in each subject shall represent a full academic year's course in an accredited college of arts and sciences.

The required hours and subjects must be completed by the end of the spring term preceding the fall in which the applicant wishes to begin the DDS degree-awarding program. The following electives are suggested for the remainder of the required sixty-four semester hours: Modern languages, mathematics, history, social science, philosophy, speech, economics, comparative anatomy, psychology and computer utilization. The majority of applicants enrolling in the School of Dentistry should have completed a Bachelor's degree program.

Weighting of admission criteria will reflect emphasis on academic performance. This includes science GPA, non-science GPA, total GPA and DAT scores. The minimum total GPA and DAT score required for acceptance to the School of Dentistry will be 3.0 and 17, respectively; however, it should be noted that currently for the RDEP students the average total GPA and DAT score is 3.6 and 20, respectively. The interview evaluation will also be a key factor contributing to the applicant's potential for acceptance.

## **Student Advisement**

Students in the DDS degree program will be appropriately informed and sustained concerning their academic and professional expectations and financial obligations by the offices of the School of Dentistry's Assist/Assoc Dean for Student Affairs and Finances, working with the Curriculum, Learning and Teaching, Scholastic Standards and Assessment Committees through the following processes.

### **Personal, Academic and Career Counseling**

Personal, academic and career counseling of students will be provided and coordinated through the Office of Student Affairs in the School of Dentistry.

The Assist/Assoc Dean for Students Affairs of the School of Dentistry will have primary responsibilities related to personal counseling of students and will have an open door policy for all dental students. This availability of the Assist/Assoc Dean for Student Affairs will be communicated to students during orientation at the beginning of the year, reinforced to class officers several times throughout the academic year and faculty will be reminded of this role during a Faculty Retreat. The majority of personal problems that arise, such as an illness or death in the family or housing difficulties, will be resolved by the office of the Assist/Assoc Dean for Student Affairs. Personal problems that may arise for students which require the expertise of professional counselors or psychologists will be referred to the Health Sciences or the Medical School counseling centers.

Academic counseling for pre-doctoral students in the School of Dentistry, particularly in situations when expectations are not being met, will be coordinated by the Assist/Assoc Dean for Student Affairs working in conjunction with the Assist/Assoc Dean for Academic Affairs & Faculty Development, the Assessment Committee and the Scholastic Standards Committee. Each student is assigned a faculty academic advisor. Individual luncheons will be scheduled during the first month of the academic year for the academic advisors and their group of first year advisees. The purpose of this meeting will be to insure that each student will meet his/her advisor, to open lines of communication, to explain the academic assistance available, and to encourage early recognition and corrective action with respect to academic problems. The School of Dentistry and the Assist/Assoc Dean for Academic Affairs and Faculty Development will seek information from the dental and basic sciences faculty regarding dental student performance early in the academic semester. This will be to identify students who may be in trouble and who are reluctant to seek help. Once identified, whether by self or by the institution, students will be paired with tutors in an effort to improve their academic status. The tutors will be upperclassmen identified as having excelled in the subject matter under consideration and have volunteered to provide this service. They will be paid entirely by the School of Dentistry, or by the School of Medicine for basic sciences tutoring. In extreme cases, the Assist/Assoc Dean for Student Affairs, in conjunction with the Assist/Assoc Dean for Academic Affairs and Faculty Development, facilitate the development of special curricula or remedial programs for those students identified by the Scholastic Standards Committee as needing it.

Career counseling will be coordinated through the Office of Student Affairs for students in the DDS degree program. Assistance will be provided by the Assist/Assoc Deans for Research and Clinical Services through emphasis on the importance of developing a research portfolio and clinical experience with respect to gaining admission into a specialty program and by providing opportunities for scholarly projects. A seminar will be held in late spring of the junior year to explain the application process for post-doctoral/residency programs, including the Match Program and PASS. A listing of practice opportunities

throughout the United States will be maintained in the Office of Student Affairs and updated semi-annually. Students will be encouraged to consider a career in academic dentistry through participation in elective course offerings during which time they teach in pre-clinical laboratory courses. A semester-long class on Practice Opportunities and Economics will be offered during the Junior year. It will be taught by instructors with training and experience in financial planning and practice management and will focus on the various practice opportunities by types and financial aspects. It will include units on how to avoid financial disaster, buying supplies and equipment, and guest lectures on insurances (state, federal and practice), etc.

### **Assuring Student Participation on Appropriate Committees**

Pre-doctoral student participation on appropriate committees will be important to the governance of the School of Dentistry as it administers the DDS-awarding program. The following standing committees (only principal committees are listed) are anticipated to include student membership: Committees on Student Advisory, and Admissions; Curriculum Committee; Scholastic Standards Committee; Committee on Learning and Teaching; and Assessment Committee. Students will be expected to participate on other committees as developed involving critical issues such as policies, clinical management and expectations, faculty and administration performance, financial considerations, etc. Students will be voting members on all of the committees on which they are members except for the Committee on Admissions. At the beginning of each academic year, the Assist/Assoc Dean for Academic Affairs and Faculty Development, will contact each class and present them with a listing of committee service opportunities. The class will then conduct elections to fill the available positions and return this information to the Assistant/Associate Dean.

### **Providing Appropriate Information about the Availability of Financial and Health Services**

Appropriate information about the availability of financial aid and health services will be provided for DDS students by the School of Dentistry through the offices of the Assist/Assoc Deans of Student Affairs and Finances. Accepted applicants to the DDS program will begin to receive additional information about these services shortly after their selection.

The bulletin of the School of Dentistry will provide a general outline of financial aid programs available as well as the health insurance requirements, student health insurance plan, and student health services that will be available. More specific information will be distributed to students as they apply to the DDS-awarding program and are accepted. Collectively these documents will ensure that appropriate information is provided regarding the availability of financial aid and health services.

### **Developing and Reviewing Specific Written Procedures to Ensure Due Process and the Protection of the Rights of Students**

Dental students will be informed of their rights and responsibilities via the Honor Code. At the beginning of each academic year, the Assist/Assoc Dean for Student Affairs will distribute a copy of this document to all students and will collect from them a signed pledge that indicates an agreement to abide by its terms. Student rights and responsibilities will be clearly articulated.

Written procedures which ensure due process and the protection of the rights of students will be contained in the University Student Handbook and bulletin of the University of Utah School of Dentistry. Policy and procedures that govern student rights on academic action, appeal of academic actions, mistreatment or infractions of the standards of conduct, management of non-academic complains, etc., will be found in the University of Utah Code of Student Rights and Responsibilities (website at



<http://www.regulations.utah.edu/academics/6-400.html>). Copies of references for these policies and procedures will be distributed annually to the students by the Office of Student Affairs.

The policy regarding the confidentiality of dental student records is in keeping with the Federal "Family Education Rights and Privacy Act" (FERPA). It guarantees students the right to inspect their academic records for accuracy and provides them with an avenue to amend such records, if necessary. It also assures the security of those records by restricting to whom they can be released without the consent of the student. Grades will be distributed following all major examinations to inform students of their performance and to ensure the accuracy of student records. To further ensure the accuracy of student records, the Assist/Assoc Dean for Academic Affairs and the University Registrar will distribute grades to students on a semester basis. If a discrepancy in either of the two above cited practices is encountered, the Policy for the Appeal of Academic process and Grades will be invoked.

### **Student Advocacy**

The Assist/Assoc Dean for Student Affairs of the School of Dentistry will be the principal advocate for dental students and the job description for this position will clearly define this role. The Assist/Assoc Dean will sit on the Scholastic Standards and Assessment Committees. In both cases, he/she will be a non-voting member with the specific purpose of assisting dental students in the preparation and presentation of their cases as well as overseeing that due process is followed and students' rights are protected.

In summary, the School of Dentistry will assure dental student advisement by providing services that include: personal, academic and career counseling; dental student participation on appropriate committees; appropriate information about the availability of financial aid and health services; written procedures to ensure due process and the protection of the rights of students; and student advocacy.

### **Justification for Graduation Standards and Number of Credits**

The DDS degree is not granted by the number of credit hours, but by the satisfactory completion of the prescribed courses in the four year curriculum and by having a minimum GPA of 2.0.

### **External Review and Accreditation**

Consultants from Creighton University School of Dentistry were involved in the development of the proposed DDS program. The new dental curriculum will adopt that used by Creighton for transition to a full four-year DDS granting program because for more than 25 years the Creighton program successfully helped RDEP Utah students develop into well-educated and qualified dentists. Thus, during this time the RDEP students used Creighton's first-year curriculum at the University of Utah and then received the 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> year curricula at Creighton to complete requirements for the DDS degree.

Accreditation for the DDS program is being sought through the American Dental Association for Initial Accreditation of the proposed new dental school and degree. Accreditation is important so that our graduates will be eligible for local and national licensing. The application passed the first stage of review, and was considered by the accrediting board to be "stellar ...". A site visit is scheduled for the end of March 2012 and accreditation should be received in August 2012. This schedule puts the process one year ahead of the ADA requirement of having initial accreditation before the first dental students begin in August 2013. No additional costs are required beyond those included in the current and year one budgets.

### Projected Program Enrollment and Graduates; Projected Faculty/Students

Data Category	Current-Prior to New Program Implementation	Projected Year 1	Projected Year 2	Projected Year 3	Projected Year 4	Projected Year 5
Number of Graduates (Residents) in Proposed Program	10	10	10	10	10	10
Total # of declared majors in Proposed Program	10	20	40	60	80	80
Total School Faculty FTE (as reported in Faculty table above)	20	20	30	50	64	64
Total college Student FTE	20	30	50	70	90	90
Student FTE per Faculty FTE (ratio of total college Faculty FTE and total college student FTE)	1	1.33	1.67	1.4	1.4	1.4

### Expansion of Existing Program

This is a new degree and School (college-equivalent) of Dentistry and not an expansion of an existing program. However, this will allow us to transition a one-year contract program with Creighton University to a full University of Utah four-year DDS-granting program.

### Section III: Need

#### Program Need

The University of Utah Health Sciences, in behalf of the State of Utah, has participated in a Regional Dental Education Program (RDEP) for more than twenty-five years. Under this American Dental Association (ADA) accredited contractual DDS-awarding program, Utah students have received the first year of dental school at the University of Utah and the second, third and fourth years at Creighton University School of Dentistry. The students have matriculated, graduated and received their DDS degree from Creighton University. The first year curriculum at the University of Utah in the RDEP program is the same as that offered at Creighton University School of Dentistry, and the students take the same competency examinations. The Utah students are co-mingled with the traditional Creighton students at Creighton University for the remainder of their education. We are confident the RDEP program graduates well-educated and clinically competent dentists as evidenced by the results on examinations and evaluations such as National Boards, where the Utah students (as a group) score above the national average and generally rank in the top quintile.

At the University of Utah, because of the RDEP program the first step toward a fully operational DDS-awarding program has already been taken. Twenty-five percent of the curriculum (i.e., first year) is already

in place and has been functioning for more than twenty-five years. The current RDEP program is fully accredited by the ADA (as part of Creighton's accreditation). This program is currently producing well-qualified dentists. Having a first year, fully functional curriculum with experienced faculty and staff already in place will serve as a foundation upon which we can build faculty, adopt the remainder of the curriculum, extend current research opportunities, and utilize existing facilities to efficiently transition into a fully accredited DDS program at the University of Utah administered by a new School of Dentistry.

We currently have in place all basic science faculty needed for curriculum implementation and teaching. Already existing and currently being used by our existing dental program are sufficient-sized lecture rooms, histology laboratories and equipment, gross anatomy laboratories and cadavers, simulation/technique laboratories and University of Utah community dental clinics. These resources are available for our proposed DDS degree program and sufficient funds are in University of Utah accounts specifically designated to cover the costs of constructing a new fully equipped dental school building and facility to complement our current physical facilities and to accommodate the proposed dental program and School of Dentistry.

Because of our experience and success with the existing curriculum, evaluation methods and access to the philosophy of Creighton University, our curriculum and materials for the new University of Utah DDS-awarding program will continue to be based on those from Creighton University School of Dentistry. Our faculty and students have participated in this curriculum for more than twenty-five years and the State of Utah has greatly benefited from the results as many of the RDEP graduates have returned to Utah to serve its citizens. In the past few years it has become evident that the time has arrived to expand the dental training that is offered by the University of Utah to the citizens of this State by converting the RDEP program into a fully accredited School of Dentistry that is authorized to award the DDS to its graduates: this will allow these graduates to become licensed and qualified in every way to practice dentistry both in Utah and throughout the country. The ability to earn the DDS from the new University of Utah School of Dentistry will greatly complement existing health care training and services already available to the citizens of Utah and will be of tremendous health and economic benefit to this state. To achieve this objective we will employ the four-year basic curriculum and program of Creighton with the caveat that adjustments will be made to accommodate special needs and resources of the University of Utah and state of Utah. Permission has been received from Creighton University School of Dentistry to adopt, adapt and use their DDS curriculum and materials accordingly.

In 2002, the idea and concept of a dental school at the University of Utah that is qualified to award the DDS degree was first presented to the Senior Vice President for Health Sciences. The concept was then taken to the Executive Committee of the Utah Dental Association to discuss the feasibility of a DDS program in Utah. This was followed by a series of meetings and presentations to the District Dental Societies throughout the State of Utah. A financial plan was developed to determine the economic feasibility. The Utah Medical Education Council (MEC) conducted a dental workforce study in 2002 and again in 2006 to determine future workforce needs for the State.

The outcome of the meetings and studies were as follows:

- 1) It is financially feasible to establish a DDS-awarding School of Dentistry at the University of Utah due to the development of substantial funds and a \$30 million gift to help build and establish the School. This reduces the need for State funds to a relatively small amount for annual operations. The MEC workforce studies identified a need for additional dentists now and in the future in order to maintain our current (below national average) dentists per 100,000 population.

2) The Senior Vice President for Health Sciences at the University of Utah granted permission for the development of a proposal to offer the DDS degree and establish a School of Dentistry at the University of Utah. The initial concept and program was put together by Dr. G. Lynn Powell, DDS, Dr. Gordon Christensen, DDS, and Mr. David Squire, BA, MS. The proposal was presented to the Executive Committee of the Utah Dental Association (UDA) and was then presented at three different Utah Dental Association general invitation meetings in various parts of the state to seek input from the dentists and the community. These meetings were headed by the then President of the Utah Dental Association, Dr. Randall Mattson. Modifications and changes were made to the proposal based on input from these meetings and additional members were added to the planning group, including: Dr. Ron S. Bowen, (President of the Utah Dental Association at the time); Cathy Anderson, Assist/Assoc Dean of Finances, School of Medicine; University of Utah representatives and selected dental faculty members.

3) The revised proposal was then presented at a series of eight different dental meetings by Dr. Ron S. Bowen, Dr. G. Lynn Powell, and Dr. Gordon Christensen. Input and support was also sought and received from two members (dentists) of the Utah State Legislature (Dr. Peter C. Knudson and Dr. Allen M. Christensen). The proposal, including financials, was again revised and with the support of the Utah Dental Association, presented to the Vice President for Health Sciences.

4) The following committees were established with Dr. G. Lynn Powell as the Chairman to develop further the proposal:

i) A Facilities Planning Committee was formed at the University of Utah and included members of the Utah Dental Association (Dr. Ron Bowen and Dr. Gordon Christensen).

ii) A Strategic Goals and Assessment Committee was developed with faculty and leadership from the University of Utah. Additional members were Dr. Steven Steed from the State Health Department, Dr. Scott L. Theurer and Mr. Monte Thompson from the Utah Dental Association.

iii) A Curriculum and Accreditation Committee comprised of University of Utah dental faculty and School of Medicine faculty, members of the Utah Dental Association (Dr. A.J. Smith, Dr. Gordon Christensen and Dr. George Bailey) was formed.

A new building to house the School of Dentistry at the University of Utah is currently being designed and a location determined. The new building will contain classroom space and the various clinic and pre-clinic areas needed to support the education of the students. It will contain administration areas, faculty offices and research areas and all of the support areas needed for management of the DDS degree program and the operation of the School. The University of Utah has approved the building and location. The dental program has received sufficient private and non-state funds (including a \$30 million gift from one family) to design, build and fully equip the facility. This generous donation was given with the condition that the School of Dentistry is approved and initiated by the 2013/2014 academic year. As a non-state funded building, its plans have been proposed to and approved by the State Building Board. The plans are now being submitted to the State Legislature for approval. It is anticipated that the building will be ready for occupancy in the fall of 2014. In the meantime, our current facilities (classrooms, pre-clinical labs, basic science facilities and faculty offices) would be used for the first year curriculum of the entering class.

The needs-based development of the DDS degree program and the dental school formed the backdrop for determining the class size. We attempted to strike a balance between maintaining the current supply of dentists in the state and to avoid unnecessary competition with established practitioners coupled with

having an adequate class size to achieve fiscal and programmatic stability. A student body of 30 to 50 students per class fits the projected needs identified by the MEC and provides sufficient financial resources without high tuition costs.

As mentioned above, we currently offer a fully accredited first year curriculum for the DDS degree as part of the contract program with Creighton University School of Dentistry. Annually this program accepts 10 students plus a separate, but parallel, program that accepts an additional 10 students each year. The students in both programs (for a total of 80 students at any one time) receive the vast majority of their dental training outside of Utah as out-of-state students at public institutions or at very expensive private dental schools. A School of Dentistry at the University of Utah will allow these, and other dental students as needed from Utah, to stay in state and take advantage of the outstanding resources at the University of Utah to receive their DDS degree. This will be of great financial benefit to Utah in-state students as well as be a tremendous economic benefit to USHE, the University of Utah and the state of Utah as a whole.

In addition, we offer a fully accredited General Practice Residency (with ten GPR residents per year) in conjunction with the University of Utah Hospital. We anticipate that once the DDS program is established and the School of Dentistry is fully functional, we will continue to offer this very successful residency program as well as other selected specialty training programs as may be identified by the practicing community and needs of the community.

### **Labor Market Demand**

Each year approximately 4500 new DDS (or equivalent) degrees are given to graduates from accredited dental programs in the United States. After receiving their DDS, dentists have several post-graduation options that include:

- (i) practice of general dentistry either as an associate to an established practitioner or group, or as an independent private clinician
- (ii) additional training in residency and programs leading to master's or doctorate degrees, or certificates, such as
  - general dentistry
  - oral surgery
  - pedodontics
  - prosthodontics
  - orthodontics
  - endodontics
  - periodontics
  - oral pathology
  - public Health
  - research-based programs that lead to the Ph.D. degree—e.g., microbiology, pharmacology, biochemistry, neuroscience, anatomy, etc.
- (iii) Institutional practice in organizations such as the military, Public Health Corp or total health care systems (e.g. IHC)
- (iv) Research at academic centers or private industry

An overarching objective of the University of Utah DDS degree program will be to assure that the citizens of Utah receive sufficient outstanding dental care to meet their health-care demands and needs. This will be

done in the following ways:

- (i) The administration of the DDS program and associated dental school will work closely with the State of Utah and local dental associations and practitioners to frequently and accurately assess dental needs of the community in order to adjust their student population (both the quantity and nature of their programs) to address the State's requirements. For example, to the extent that health care is reformed due to discoveries in the health sciences, changes in the patient demographics (citizens in the state become older or younger), the mode of practicing shifts (e.g., more emphasis on prevention or holistic medicine) or payment systems are modified, the DDS program will provide the necessary training to its students and trainees to be able to adjust to the changes. In addition, as new needs are identified, the dental program will also organize and implement continuing education programs to help the dental profession in the State and region to better serve the dental needs of the community.
- (ii) The DDS program will use strategies such as scholarships and subsidized grants to incentivize dental graduates to go to state regions with unmet dental needs. In addition, through matriculated dental students and residents, the University of Utah School of Dentistry will staff satellite clinics in areas of need to help address.

Based on information from the Utah Medical Education Council (MEC), it appears there are insufficient dentists establishing practices in Utah to maintain the current dentist to population ratio (56.8/100,000 population), which is already below the national average (59.8/100,000). The 2008 MEC report indicated that we need 75-85 new dentists/year with a net increase of 36-40 per year to maintain our current ratio. That Utah has need for additional dental manpower is further supported by an American Dental Association (ADA) report that the Utah dental workforces is significantly lower than that in the Pacific, New England or Middle Atlantic regions and even some of the Mountain states like Montana. The report further suggests that the current number of Utah dentists is declining, reflecting a trend that is also occurring at the national level. The declining numbers are likely to further reduce the Utah dentists/population ratio, especially in light of a fairly robust Utah population annual growth of approximately 1-2%. The following are specific reports that support this conclusion.

- In 2009 and 2010 there was only an annual net increase of 18 dental licenses/year compared to the annual average of 33 new licenses in Utah for 1998-2008 (in 2010 more dental licenses expired than were issued).
- In 2006-2010 there was an annual increase of 22 dental malpractice insurance policies, however, in 2010 there was a net decrease of 4 policies.
- Based on ADA reports, fewer Utah students are returning to Utah to practice because of economics, lower fees/service, and skyrocketing debt resulting from being forced to attend expensive out-of-state public and private dental schools.
- The shortage of dentists in Utah is especially severe in rural areas that offer fewer economic incentives than larger metropolitan regions located along the Wasatch front.

## **Student Demand**

The profession of dentistry provides a medical career that has special appeal to Utah students. This is due to its high professional regard, opportunities for entrepreneurial independence and satisfying professional development, exceptional economic benefits and a desirable life-style option. Consequently, the ADA has reported that Utah has the highest applicant rate for dental schools in the country. This is reflected in the

fact that 170-200 applications are considered annually for the RDEP program at the University of Utah. The ADA also reported in 2004 that 168 first-year students who claimed Utah as their residence were matriculated in dental schools throughout the country. Although data are not available, it is very probably that approximately 2-3 times this number actually applied as the acceptance rate for dental school has been approximately 50%. Despite this historically high demand, a full 4-year, state-supported dental program has not been available to Utah residents. More recently there has been a disturbing trend that tuition and fees for DDS-awarding programs, especially those associated with expensive private institutions and those required of non-resident students at state-supported schools, have skyrocketed: consequently, it is frequent that Utah dental students have total expenses of \$85,000 to \$115,000/year for tuition and fees and cost of living. Thus, upon graduation these students can have debt approaching \$0.5 million. It is expected that the prospects of such staggering and seemingly escalating debt will make a dental education inaccessible to many Utah students and force these students to select less desirable, but more affordable careers. This appears to be already occurring based on recent reports that Utah first-year dental students declined from 168 (2004) to 134 (2008), despite the fact that the number of graduates from Utah universities has been steadily increasing. It is proposed that the most appropriate strategy to address these undesirable circumstances is to establish a fiscally sound dental school that fully utilizes the outstanding resources of the University of Utah to offer an affordable high-quality dental education to qualified in-state residents.

### Similar Programs

The proposed School of Dentistry at the University of Utah would be the first dental school to award the DDS degree at any of the state-owned universities or colleges in the state of Utah. Because of its strong history and impressive record of training students to become physicians, pharmacists, and nurses, it is appropriate to build on this tradition at the University of Utah and apply the exceptional resources and expertise to create a DDS degree program that will have a strong research emphasis and rapidly become ranked among the leading dental programs in the country.

While there is no DDS-awarding program within the State of Utah Higher Education System, there is a private dental program in Salt Lake City that was originally known as the University of Southern Nevada and recently changed its name to Roseman University. This Nevada-based proprietary institution only recently initiated its dental program (Fall of 2011) and differs considerably from the proposed DDS program at the University of Utah as summarized in the following table:

	<u>University of Utah</u>	<u>University of Southern Nevada (Roseman)</u>
<u>Philosophy</u>	<ul style="list-style-type: none"> <li>• Answers to the state of Utah, its citizens and institutions and is part of the state’s higher education system.</li> <li>• Designed to optimize dental services to people of Utah and their unique needs.</li> <li>• Supported by resources from research, student tuitions, clinical services (including residencies), endowments (current and</li> </ul>	<ul style="list-style-type: none"> <li>• Answers to its investors, Board of Directors and/CEO based in southern Nevada. No binding obligation or commitment to the state or people of Utah per se. It is basically a franchise endeavor with intended</li> </ul>

<p><u>Resources</u></p>	<p>anticipated), entrepreneurial endeavors, CME programs, and minimal state money.</p> <ul style="list-style-type: none"> <li>• Will construct a new state-of-the-art dental structure with exceptional, University owned and paid for, education and clinical facilities designed especially for dental and related education and services. This facility will be of no cost to the state but built with donated money from a generous philanthropic gift.</li> <li>• Access to state-of-the-art Health Education Building</li> <li>• Access to hospital and attending medical services</li> <li>• Access to supportive residency programs and community clinics</li> <li>• Partnership with Utah Department of Health including its dental programs; including clinical services and training arrangements</li> <li>• Close working relationship with state dental society. This partnership has been in place for years working with the RDEP program. The UDA is very supportive of the dental school</li> </ul>	<p>programs throughout the country.</p> <ul style="list-style-type: none"> <li>• Organization and strategies based on business models that optimize profits and minimize expenses</li> <li>-Supported principally by student tuitions and fees, reported to approximate \$75-80,000/yr</li> <li>• Currently has no research mission, no company spinoffs potential, no standing endowment, no continuing education mission.</li> <li>• Leases a generic office building owned by Layton Construction that has been retro-fitted for dental education purposes with minimal clinical facilities</li> <li>• A lack of resources, no reputation or history, an outdated education/clinical experience program and tuition requirements that are comparable to the most expensive private programs in the country (at least-\$80,000/year), likely will severely limit the selection of students to those who have difficulty getting accepted to more established, better equipped and less expensive programs.</li> <li>• Low-cost strategies that use considerable teleconference in place of one-on-one in person tutoring, and employs platoon teaching (some teachers are only in town for a couple of weeks and do “block” teaching) that allows only</li> </ul>
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<p><u>Student body and financial support</u></p>	<ul style="list-style-type: none"> <li>• Slots will be highly competitive, and in demand, due to the reputation of the University of Utah, its outstanding teaching and research faculty and resources as well as its very competitive state-related tuitions. The dental school will be particularly attractive to in-state students who will pay ~\$29,000 annual tuition and even out-of-state students who will pay ~\$54,000. Because of these conditions, it is anticipated that the majority of the best-prepared Utah students who historically were forced to leave the state to attend dental school (&gt;140/yr) will compete for the available slots annually. Consequently the dental school will be able to select the best prepared for its student body.</li> </ul>	<p>limited access by students to instructors, professors or mentors. It also results in silo teaching (one topic at a time) and does not allow for integration of information (e.g. organ systems) like that used by the most sophisticated and experienced dental and medical programs.</p> <ul style="list-style-type: none"> <li>• Due to limited clinical resources and the lack of a "track record", the nature of clinical training is not clear, consequently it is not apparent how the limited clinical resources will impact clinical competencies of graduates of the program.</li> </ul> <p>•Tuition or any revenue belongs to the parent organization in Nevada, its Board of Directors and investors</p>
<p><u>Education strategy</u></p>	<ul style="list-style-type: none"> <li>• Uses teaching and clinical strategies that are consistent with best practices and outcomes at the finest DDS programs throughout the country. This is due to</li> </ul>	<ul style="list-style-type: none"> <li>•The dentists, and most of the instructors are brought in from out of state and may only stay in Utah for less than a month</li> </ul>

<p><u>Assets to State of Utah</u></p>	<p>outstanding resources, experience and endowment support at the University of Utah. This program will be comparable to other outstanding dental schools across the country associated with medical schools and other health care training programs. Its association with nationally recognized medical, pharmacy and nursing schools will allow for integrated experiences that will allow students from this program to feel comfortable in the holistic health care teams of the future.</p> <ul style="list-style-type: none"> <li>• Professors and instructors, both basic science as well as clinical will be local and readily available to students according to their needs to optimize mentoring experiences and outcomes</li> <li>• Research will be a critical piece of this DDS program, a policy consistent with the overall mission of a research institution such as the University of Utah. This provides students important opportunities to develop appreciation for, and skills to analyze and participate in, the research process. In addition, having professors and instructors who also are researchers themselves brings to the classroom or clinic a better appreciation of how health care should work and how it evolves. Bottom line is that the dental clinician of the 21<sup>st</sup> century must be more than just a technician, but a thoughtful person of science who applies the scientific method to his/her clinical skills and understanding of clinical situations.</li> </ul> <ul style="list-style-type: none"> <li>• A University of Utah DDS-awarding program is designed to keep and train the best in-state students. It will retain their tuition and other expenses in state as investments to enhance the quality of Utah education system</li> <li>• Research dollars and outcomes will benefit the state and the University</li> <li>• Spinoff companies with dental-related focus will contribute to the economic well-being of</li> </ul>	<p>and take their pay checks to their home states. They use a “block” approach to teach topics rather than the integrated strategies employed by most clinical training programs.</p> <ul style="list-style-type: none"> <li>• There is no research or entrepreneurial emphasis, thus no benefit in this regard to the state</li> <li>• A minority of the students are in-state; many are internationals</li> <li>• This is a national franchise operation based in Nevada with no particular obligation or</li> </ul>
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<p><u>Foundation, track record and experience</u></p>	<p>the State</p> <ul style="list-style-type: none"> <li>• It will provide jobs and salary for the in-state community that will stimulate the economy. Provides opportunity for involvement in dental education and research to local dental societies and clinicians. It will provide a prestigious identity with a highly regarded institution known for its reputation in medical education, research and entrepreneurial contributions.</li> <li>• It will bring added prestige for the University, USHE and the state of Utah</li> <li>• It will provide a service resource to render dental care to underserved populations</li> <li>• It will be an affordable resource for training and upgrading of skills to the Utah dental community</li> </ul> <ul style="list-style-type: none"> <li>• The University of Utah has provided dental education for ~ 25 years through the RDEP and general dentistry residencies. At any one time, this has included 40 dental students (10 per year) and 10 residents. It has involved not only classroom instructions for the freshman year, but also clinical instruction and services in hospital and communities facilities. It also has provided clinical experiences for dental students who rotate back to the University of Utah during their senior year.</li> <li>• In addition, there is another 40 Utah dental students at any one time who are enrolled in other dental schools around the nation who are also associated with the RDEP program, but did not do their freshman year at this University. These programs have provided important experiences and foundation upon which a full-service dental school can be developed</li> </ul>	<p>allegiance to state of Utah</p> <ul style="list-style-type: none"> <li>• This is the first attempt by this organization to initiate and operate a dental school. Although the current dean has worked with a couple of other private dental programs around the country, this organization is not building on an existing physical or academic infrastructure in Utah and is new to the "dental education experience". Everything is being developed from scratch employing untried strategies that are driven more by fiscal and profit considerations than by established education practices.</li> </ul>
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### Collaboration with and Impact on Other USHE Institutions

Because no other USHE institution has a DDS-awarding program, nor is in a position to award the DDS, or equivalent, degree, this question does not apply. As mentioned above, only the University of Utah has the background and history of clinical training that would enable it to develop a high quality, successful

dentistry program. Consequently, collaborative efforts in regard to a DDS program are not likely at this time. However, while the proposed DDS degree program at the University of Utah will be the first in the USHE, it will be highly integrative with other clinical training and related services as follows:

The DDS degree program will be integrated into the University of Utah and the Health Sciences in general. The existing dental program will expand and be able to provide the full experience and curriculum necessary to award the DDS degree, and continue its current relationships which include an existing agreement with the University of Utah Hospital for functioning clinics that are located: 1) at the University of Utah hospital within the health sciences complex and 2) at the University of Utah owned and operated Greenwood Dental Clinic located on 7495 South State Street, Salt Lake, City, Utah. Both clinics currently serve the General Practice Residency program as primary care dental clinics. The hospital clinic also supports the first-year occlusion courses for occlusal analysis procedures and preventive dentistry in the DDS-awarding program.

Faculty from the School of Dentistry will serve on appropriate governing councils and committees as do faculty from the schools of Medicine, Pharmacy, Nursing, etc. Additionally, School administrators, such as the Dean, will also serve on appropriate health science committees, e.g. Medical Science Council, Dean's Forum, etc. Specifically, the School of Dentistry will participate in University common governance by having representatives on the following University Committees by the time the first freshman predoctoral class begins coursework; (i) Academic Senate; (ii) Graduate Council; (iii) University Promotion and Tenure Advisory Committee (UPTAC); (iv) Academic Appeal Committee; (v) University RPT Standards Committee; (vi) University Teaching Committee; and (vii) Academic Appeal Committee. Faculty representatives from the School of Dentistry will also be assigned to serve on other important and relevant University of Utah common governance committees as the faculty numbers increase permitting such participation.

Further evidence of interaction is demonstrated by the fact that faculty from the University of Utah School of Medicine currently instruct the first-year RDEP dental students along with the medical students in embryology, histology, and gross anatomy courses. Neuroanatomy, biochemistry and physiology classes oriented specifically for the dental students are also taught as separate courses to the dental students by faculty from the School of Medicine. Faculty from the College of Pharmacy will also participate in student instruction in the School of Dentistry. We anticipate that these collaborative and interactive relations will continue with the establishment of the new DDS program.

The RDEP program has a close relationship with the Spencer S. Eccles Health Science Library allowing the students full access, as well as educational training and services for faculty through their facilities. This will continue with the new DDS degree program. The library maintains a large collection of dental journals and dental textbooks for student studies and research. Dental students also will have access to the University of Utah's Marriott Library and its full array of educational and research services.

The RDEP program is currently developing collaborative research opportunities with the School of Medicine and the Huntsman Cancer Institute and for the new dental program it is intended to expand to build a robust research program relationship which will also include the University of Utah Colleges of Pharmacy, Engineering, Biological Sciences, Chemistry, Behavioral Sciences, and others who will contribute to the fulfillment of our Strategic Goal to advance oral health through research and its application.

Although the proposed DDS degree will be administered by the new School of Dentistry and its administrative structure, the dental program will build upon its current relationship with the Department of Pathology in the School of Medicine and ARUP (Associated Regional and University Pathologists). For

almost twenty-five years the Dental Education Program at the University of Utah has functioned within the Department of Pathology. With the creation of a new dental school program it is our intent to enrich our curriculum by our continued association and collaboration with these and other relevant biomedical efforts.

## Benefits

The inclusion of a DDS-awarding program in the USHE, specifically at the University of Utah, will for the first time provide access for qualified Utah students to training in all of the major medical professions. This will make it possible to integrate the training of physicians, pharmacists, nurses, and now dentists so they feel comfortable working together and combine their clinical services in a holistic manner as they work to provide optimal health care to the citizens of Utah. In addition, the proposed DDS degree program *will bring considerable direct economic benefits to the State of Utah* including the following:

- The annual \$8+ million these students currently spend for educational expenses, and generate due to clinical services performed in out-of-state dental schools, will now be kept in Utah.
- The dental student's tuition and fees (cost of education) will be reduced by over \$100,000-\$200,000/student due to in-state rates to Utah residents.
- The State/University will save \$1 – 1.5 million annually by not paying reimbursement to students and contract costs (i.e., those students trained out of state who return to practice in Utah-this currently is part of the RDEP program).
- 80 - 100 new, high-paying jobs created at the University will be added to the state economy.
- Fast-track construction of a new dental science-dedicated building at no expense to the State (except O&M) will bring \$30 million in construction costs to Utah.

These economic benefits will result from no additional cost to the State (no increase in current base appropriation for 20 entering Utah students/year). The proposed dental program will effectively attract more dentists to practice in rural Utah and help address the need for accessible dental care to this underserved population. This will be achieved by the following strategies:

- i) Selection of students: Accept a set number of students from rural areas, because they are more likely to return to rural areas to practice.
- ii) Scholarship: Offer specially designated scholarships to students who come from rural areas.
- iii) Reimbursement: Set amount of reimbursement dollars for 3-5 years of practicing in a rural area.
- iv) Rotate dental students through the rural community clinics with the general dentistry residents to provide exposure to the unique features and benefits of this environment.
- v) Establish a mobile Dental Unit in conjunction with the State Health Department that will allow faculty and students to provide dental care to rural areas.

Other economical and health care benefits of the dental school at the University of Utah include major research opportunities in:

- Oral pain management (partnering with the drug-development program of the Antiseizure Drug Development program)
- Genetics of oral diseases (using the Utah Population Data Base) (partnering with the Department of Informatics and Human Genetics)
- Oral pathology (partnering with HCI and ARUP)

- Dental product development (partnering with Dr. Gordon Christensen)
- Medication development for management of oral diseases (work with the College of Pharmacy)
- Addiction disorders (screening and brief intervention program for prescription abuse, tobacco and alcohol management and their oral consequences) (partnering with the Utah Addiction Center)
- Development and management of hard and soft tissue diseases (partnering with the Department of Bioengineering)

From evaluations of other comparable state-associated research-related dental programs and the unique research-promoting environment of the University of Utah, it is realistically projected that a DDS degree program at the University of Utah will generate >\$6 million/year in research dollars and will be included in the top 10% of dental schools within 10 years of initiation. These revenues will be spent in Utah and result in ~40 additional jobs.

A new DDS degree program at the University of Utah will provide entrepreneurial opportunities by taking advantage of programs such as state-supported USTAR (e.g., start-up companies) related to dental services and products, likely at the same level as the College of Pharmacy, a program of comparable size. For example, the College of Pharmacy has accounted for 10 new start-up companies in the past 15 years (i.e., Sentrx Surgical, Theratec, Macromed, Glycosan BioSystems, Carbylan BioSurgery, Echelon Biosciences, Lipocine, Aciont, Neuroadjuvants, Symbion Discovery) as well as contributed to several others. It is noteworthy that without a complete DDS degree program, the University has not contributed to any dental-related start-up company, however, establishment of a full DDS degree awarding program at the U of U will allow development of this new, exciting and heretofore untapped market.

### **Consistency with Institutional Mission**

The University of Utah has a strong tradition of training professionals in most aspects of the biomedical field. This institution is especially noted for research and entrepreneurial spirit as evidenced by its success in competing for grants, contracts and initiating start-up companies. Despite its exceptional track record in this regard, and the high demand by Utah students to receive training in the dental field, the USHE has had minimal opportunities to be involved in dental education and consequently, it has made few contributions and had little influence in dentistry. As discussed above, the addition of a DDS degree awarding program at the University of Utah will help fill these gaps and provide much needed, but heretofore lacking, opportunities of dental-related training and entrepreneurial development.

## **Section IV: Program and Student Assessment**

### **Program Assessment**

#### **Expected Standards of Performance**

These two sections are closely linked in that the success of the DDS program will for the most part be determined by the performance and competencies of its pre-doctoral student body. Thus, the responses for these sections have been integrated below by identifying and explaining critical standards that will serve as the foundation for the University of Utah School DDS program. These standards, competencies, assessments and associated coursework are consistent with that of the University of Creighton School of Dentistry and reflect the accreditation requirements of the American Dental Association and are described below:

***Standard 1: Individual evaluations will be performed in accordance with institutional due process policies to assess student performance and achievement of competencies.***

As part of the University of Utah DDS program, implementation of this standard will be a three-step process, the first of which will be to inform the students of the didactic, behavioral and/or clinical expectations that exist for them. Three primary sources of information will exist for this purpose. As a part of the registration process at the beginning of each academic year, the Office of the Assist/Assoc Dean of Student Affairs in the School of Dentistry will distribute electronically a packet of information to each student that is year-specific regarding student academic and behavioral expectations as well as all School policies and practices that govern such activity during that academic year. This information will be more global in scope and will include the following information:

*1. Freshman Year*

- a. Honor Code and Pledge
- b. Policy and Procedure for the Promotion of Academic Integrity and the Management of Academic Misconduct
- c. Policy for the Management of Failing Grades
- d. Policy for the Appeal of Academic Process and Grades
- e. Policy for the Management of Non-Academic Complaints
- f. Policy on Re-Hearings by the Scholastic Standards Committee and the Appeal process
- g. Notice of Opportunity and Procedure to File Complaints with the Commission on Dental Accreditation
- h. Competency Examinations Administered During the Freshman Year which also includes a brief description of each examination and the competencies covered by that test
- i. Competencies for the University of Utah DDS degree program which includes the competency definitions, the evaluation criteria and the academic year in which the criteria are applied
- j. Procedures and Practices for Promotion for the Freshman Year
- k. Attendance standard
- l. Dress Standard
- m. Confidentiality of Student Records / FERPA
- n. Statement of Patient Rights at the University of Utah School of Dentistry

*2. Sophomore Year*

- a. Honor Code and Pledge
- b. Policy and Procedure for the Promotion of Academic Integrity and the Management of Academic

Misconduct Policy for the Management of Failing Grades

c. Policy for the Appeal of Academic Process and Grades

d. Policy for the Management of Non-Academic Complaints

e. Policy on Re-Hearings by the Academic Committee and the Appeal Process

f. Notice of Opportunity and Procedure to File Complaints With the Commission on Dental Accreditation

g. Competency Examinations Administered During the Sophomore Year which also includes a brief description of each examination and the competencies covered by that test

h. Competencies for the University of Utah DDS degree program, which includes the competency definitions, the evaluation criteria and the academic year in which the criteria are applied

i. Policy Regarding Eligibility for Taking Board Examinations

j. Procedures and Practices for Promotion for the Sophomore Year

k. Part I National Board Examination Policy which deals primarily with those students who fail to successfully complete the examination on their initial attempt.

l. Attendance Standard

m. Dress Standard

n. Confidentiality of Student Records/FERPA

o. Statement of Patient Rights at the University of Utah School of Dentistry

### *3. Junior Year*

a. Honor Code and Pledge

b. Policy and Procedure for the Promotion of Academic Integrity and the Management of Academic Misconduct

c. Policy for the Management of Failing Grades

d. Policy for the Appeal of Academic Process and Grades

e. Policy for the Management of Non-Academic Complaints

f. Policy on Re-Hearing by the Scholastic Standards Committee and the Appeal Process

g. Notice of Opportunity and Procedure to File Complaints With the Commission on Dental Accreditation

h. Competency Examinations Administered During the Junior Year which also includes a brief description of each examination and the competencies covered by that test



- i. Competencies for the University of Utah DDS degree program, which includes the competency definitions, the evaluation criteria and the academic year in which the criteria are applied
- j. Procedures and Practices for Promotion for the Junior Year
- k. Policy Regarding Eligibility for Taking Board Examinations
- l. Part I National Board Examination Policy which deals primarily with those students who fail to successfully complete the examination on their initial attempt
- m. Annual Clinical Performance Standards
- n. Policy for Students Who Fail to Meet Clinical Performance Standards
- o. Attendance Standard
- p. Dress Standard
- q. Confidentiality of Student Records/FERPA
- r. Statement of Patient Rights at the University of Utah School of Dentistry

#### *4. Senior Year*

- a. Honor Code and Pledge
- b. Policy and Procedure for the Promotion of Academic Integrity and the Management of Academic Misconduct
- c. Policy for the Management of Failing Grades
- d. Policy for the Appeal of Academic Process and Grades
- e. Policy on Re-Hearings by the Scholastic Standards Committee and the Appeal Process
- f. Notice of Opportunity and Procedure to File Complaints With the Commission on Dental Accreditation
- g. Competency Examinations Administered During the Senior Year which also includes a brief description of each examination and the competencies covered by that test
- h. Competencies for the University of Utah DDS degree program which includes the competency definitions, the evaluation criteria and the academic year in which the criteria are applied
- i. Procedures and Practices for Promotion for the Senior Year
- j. Policy Regarding Eligibility for Taking Board Examinations
- k. Annual Clinical Performance Standards
- l. Policy for Students Who Fail to Meet Clinical Performance Standards

m. Attendance Standard

n. Dress Standard

o. Confidentiality of Student Records/FERPA

p. Statement of Patient Rights at University of Utah School of Dentistry

A second source of information, relating specifically to clinical activity and behavior expectations, will be provided by the Assist/Assoc Dean of Clinical Services for the School of Dentistry prior to entry in the clinic. This will be the Clinic Manual and it will be available to the students online. The final and most specific sources of information regarding expected academic performance and behavior will be the course syllabi. They will be distributed prior to each course.

The second step in the implementation of this Standard will be to inform each student of his/her progress throughout their course of study in the DDS degree program. This is actually a two-tiered process. At its most basic level, all didactic, laboratory and clinical courses will provide feedback regarding student performance following examinations, the completion of specific projects, and during the provision of patient care. This information will be collected and organized by the School of Dentistry's Office of the Assist/Assoc Dean of Student Affairs. Many clinical divisions (or equivalent) will also consolidate the results of patient care experiences and provide students with monthly progress reports. At the second level, each course director will be required to submit performance information for the appropriate cohort of students to the Office of the Assist/Assoc Dean of Student Affairs on an academic semester basis. A summary of this information will then be provided to each student from the Office of the Assist/Assoc Dean of Student Affairs. If it involves a final or permanent grade, the summary will be provided by the University Registrar. If it is an interim grade, the information will be disseminated by the Office of the Assist/Assoc Dean of Student Affairs.

The third step in the implementation of this Standard will be to have the DDS program review the performance of each student on an individual-by-individual basis and make recommendations to the School of Dentistry's Dean regarding either continued participation in the curriculum or action to be taken when a student's performance is below minimum standards. Students' academic and clinical performances will be reviewed by the Offices of the Assist/Assoc Deans of Student Affairs and Clinical Services, the Curriculum Committee, and the Assessment Committee. This is a pro-active process to review the academic performance of all students, with evaluating policies that affect office and committee functions, and with making recommendations to the Dean regarding student continuance in the program and academic policy modification as warranted. A review of student academic performance will occur at least four times a year. These meetings will be scheduled shortly after the receipt of all academic information as described above by the Office of the Assist/Assoc Dean of Student Affairs. Students' behavioral performance will be reviewed by the Office of the Assist/Assoc Dean of Student Affairs and the Curriculum Committee. This will occur as needed on a case-by-case basis.

When the School of Dentistry's Office of the Assist/Assoc Dean of Student Affairs determines that a student's performance is below minimal standards it will advise the Curriculum Committee and will have various options it can exercise in terms of making a recommendation to the Assist/Assoc Dean of Student Affairs: (i) placement on probation; (ii) continuation of current academic status; (iii) repetition of an academic year; (iv) dismissal, (v) or any other recommendation deemed to be appropriate. This information will be a part of the packet that is presented to each student at the beginning of the academic year. It will be

also included in the bulletin of the University of Utah School of Dentistry. It should be noted that the primary objective in making any recommendation is to help the student. In situations where the academic performance is considerably below the minimum standard, a determination must be made as to whether the student is capable of continuing in the curriculum or not, and if so, under what conditions. Cases such as these may call for the repeat of an academic year or termination of enrollment. When the performance is below the minimal standard but appears to be correctable, recommendations will be made that are geared toward remediation and resolution of the academic difficulty. We do not expect them to occur frequently if care is taken to matriculate highly qualified students and to monitor students' progress carefully.

The dental program will have several approaches designed to assist students in academic difficulty. One strategy will be to have the student and the faculty member meet for tutorial/remedial sessions designed to address the noted academic shortcoming. Another will be to enroll the student in the dental school's tutorial assistance program. At the beginning of each academic year, the Office of the Assist/Assoc Dean of Student Affairs will solicit from among third and fourth year students (once these classes are in place), people who have demonstrated academic accomplishment and who would be willing to serve as paid tutors to those who are in need. Prior to that time, outstanding earlier students will be recruited. Areas of "expertise" will be identified based on past academic performance and the tutor will be paired with a student on this basis. Thus, a tutor who has excelled in pharmacology will be assigned to a student who is experiencing difficulty in that subject. Tutors will be paid by the School of Dentistry and the student receiving this service will incur no additional financial obligation. A third strategy will be to have the student who is experiencing academic difficulties be evaluated by the University Career Counseling Center to determine whether any emotional or physical conditions exist that may account for the observed student performance. For example, if a learning disorder is diagnosed and the Counseling Center recommends the implementation of specific testing conditions, appropriate course directors will be notified and changes made.

When the Curriculum Committee determines that a student's behavior has not met minimal expectations, it will work with the Office of the Assist/Assoc Dean of Student Affairs to recommend reprimand; repetition of an examination or an assignment under a different format; reduction in grade for an examination or an assignment; failing grade for an examination or an assignment; probation; suspension or expulsion from a course; incomplete grade for a course and the requirement that the course be repeated; removal from or denial of office in student organizations; request for withdrawal from the DDS program or suspension or expulsion; and/or suspension of clinical privileges. As in the case of substandard academic performance, recommendations will be generally designed to be corrective in nature unless the act was particularly egregious. Under extreme conditions, the Scholastic Standards Committee may also become involved to assure appropriate responses without violating the student's rights. This will be done with considerable care to assure there is no compromise of confidential issues.

Whether the problem stems from an academic or clinical issue or whether it is behavior-related oriented, all adjudications against the student will carry with them the right of due process. The Curriculum Committee will oversee this process.

Didactic, behavioral and clinical expectations will be published and distributed to students via numerous avenues with intentional overlap occurring among these sources. When students do not meet these criteria, individual evaluations will be made by the Curriculum Committee and presided over by the Assist/Assoc Dean of Student Affairs, leading to an appropriate decision in accordance with institutional due process policies.

***Standard 2: The stated goals of the DDS program will include the preparation of graduates who possess the knowledge, skills and values to begin the practice of general dentistry.***

The stated goals of the DDS degree program are consistent with the University of Creighton dental program and consistent with ADA accreditation requirements and will include the preparation of graduates who possess the knowledge, skills and values to begin the independent practice of general dentistry. This is the definition of competence. The mission of the School of Dentistry will be to award the DDS degree to those pre-doctoral students who have been properly educated and trained to become excellent, compassionate, and ethical dentists. Those students receiving the DDS degree will have been trained to partner with other healthcare providers in order to serve our community and the world around us and to further our understanding and the therapeutic management of oral structures and function. Clearly, this objective in our program's Mission Statement fulfills the intent of this Standard.

The achievement of competence will be measured primarily through competency examinations and, to a lesser degree, through faculty ratings. The advancement toward proficiency will be achieved by the successful completion of all academic obligations (didactic and clinical) required by the institution. All DDS graduates will have demonstrated competence in the 30 areas set forth by the School of Dentistry as measured by performance on competency examinations and faculty observation. The attainment of these 30 competencies will be a condition for graduation. At the same time, it is anticipated that as pre-doctoral students successfully complete the various stages of DDS training, they will manifest incremental progress toward competence through their curricular activities designed to improve knowledge, skills, and values.

Mission Statement objectives are expressed and measured as the five following Strategic Goals:

1. Instill a Strong Code of Ethics and Community Service
2. Support and Maintain Academic Excellence
3. Provide Quality Dental Care
4. Promote Research to Enhance Knowledge and Advance Oral Health
5. Achieve the development and optimal integration of Faculty, Staff and Institutional Operations

Goal 1 is designed to prepare graduates with the necessary values to begin the practice of general dentistry. This will be achieved through various outreach programs that instill values such as caring for others and social justice. Goal 2, to support and maintain academic excellence, is intended to prepare DDS graduates with the requisite knowledge to begin the practice of general dentistry. This will be accomplished through various external and internal examinations, including specific competency examinations that measure knowledge, skills and values. Goal 3, to provide quality dental care, will be aimed at developing the necessary skills to begin the practice of general dentistry. With respect to accomplishment, this overlaps somewhat with Goal 2 in terms of specific competencies that measure skill development. It also emphasizes the concept of standards of care and mandates that student clinical activity meets these standards. Goal 4, to promote research to enhance knowledge and advance oral health, is concerned with faculty development, as well as preparing students to understand, critically evaluate and translate research and scholarly activity into the practice of general dentistry. Goal 5 does not have direct applicability to the preparation of graduates to enter the practice of general dentistry, however it does indirectly contribute by promoting optimal conditions for student learning and development.

The School of Dentistry will continually demonstrate the effectiveness of its DDS-related programs through an ongoing assessment process. The School of Dentistry will continuously meet all five of these Strategic Goals as determined by metrics applied. This would indicate that all Mission objectives were also being met.

***Standard 3. The DDS program will define the competencies needed for graduation, which must be focused on educational outcomes.***

There will be 30 competency statements included in the DDS program that represent educational outcomes for which students must demonstrate the requisite knowledge, skills and values to receive their DDS degree and enter into an unsupervised general dentistry practice situation. These statements, along with their definitions, methods of measurement, and the specific academic year during which these measurements are determined are presented below.

A graduate of the DDS program at the University of Utah will be competent in:

***A. BIOMEDICAL SCIENCES***

***A1. understanding the biomedical sciences and their relationship to oral health, oral diseases, and oral-related disorders.***

**DEFINITION**

1. understand basic biologic principles that consist of a core of information on the fundamental structures, functions, and interrelationships of body systems
2. recognize that the oro-facial complex is an important anatomical area that exists in a complex biological interrelationship with the entire body
3. recognize abnormal biological conditions, including their etiology, epidemiology, differential diagnosis, pathogenesis, prevention, treatment, and prognosis
4. understand the application of biological principles to clinical practice
5. understand the importance of integrating new medical knowledge and therapies with oral health care

**EVALUATION CRITERIA / METHODS**

***Freshman Year***

1. Periodontic Technique Examination
2. Occlusion Written Examination
3. Anatomic Sciences Written Examination
4. Biochemistry Written Examination
5. Physiology Written Examination
6. Dental Anatomy Written Examination

### *Sophomore Year*

1. Infection Control Written Examination
2. Infection Control Technique Examination
3. Endodontic Written Examination
4. Removable Prosthodontics (Complete Denture) Written Examination
5. Oral Pathology Written Examination
6. Operative Dentistry Written Examination
7. Oral Diagnosis Examination
8. Anesthesia / Pain Control Written Examination
9. Microbiology Written Examination

### *Junior Year*

1. Pharmacology Written Examination
2. Operative Dentistry Written Examination
3. Operative Dentistry Clinic (Silver Amalgam) Examination
4. Operative Dentistry Clinic (Composite Resin) Examination
5. Periodontic Clinic Examination
6. Patient Assessment and Diagnosis Clinic Examination
7. Dental Emergency Clinic Examination
8. Malocclusion and Space Management Written Examination

### *Senior Year*

1. Pharmacology Written Examination
2. Operative Dentistry Clinic (Silver Amalgam) Examination
3. Operative Dentistry Clinic (Composite Resin)
4. Periodontic Clinic Examination
5. Periodontic Written Examination

6. Oral Pathology Examination
7. Oral and Maxillofacial Surgery Written Examination
8. Oral Surgery Clinical Examination
9. Implantology II Written Examination
10. Patient Assessment and Diagnosis Clinic Examination
11. Dental Emergency Written Examination
12. Dental Emergency Clinic Examination
13. Malocclusion and Space Management Written Examination
14. Malocclusion and Space Management Clinical Examination

## ***B. BEHAVIORAL SCIENCES***

***B1. understanding and applying the principles of behavioral science as they pertain to patient-centered approaches for promoting, improving, and maintaining oral health.***

### **DEFINITION**

1. provide optimal and empathetic care for all patients, including members of diverse and vulnerable populations, and do so in a manner that respects patient autonomy
2. assess patient goals, values, needs, expectations and concerns to establish rapport and to guide patient care
3. establish a productive and confidential dentist-patient relationship
4. understand the principles of communication necessary for interaction with the public-at-large regarding the effective delivery of oral health care
5. understand that dentistry exists in a complex environment consisting of many factors that can either singly or in concert alter the way the profession is perceived
6. interact with patients in a positive manner that leads to an increased oral health awareness and a commitment to long-term health maintenance
7. recognize the role of psychological development in patient management
8. understand the relationship between oral health and self-perception
9. identify abnormal patient behavior and offer referral to appropriate resources
10. demonstrate involvement in providing education relevant to oral health care

## EVALUATION CRITERIA / METHODS

### *Freshman Year*

1. Periodontic Technique Examination

### *Sophomore Year*

1. Removable Prosthodontic (Complete Denture) Written Examination
2. Oral Diagnosis Examination
3. Anesthesia / Pain Control Written Examination

### *Junior Year*

1. Operative Dentistry Clinic (Silver Amalgam) Examination
2. Operative Dentistry Clinic (Composite Resin) Examination
3. Periodontic Clinic Examination
4. TMD and Orofacial Pain Written Examination
5. Community Dentistry Written Examination
6. Pediatric Dentistry Written Examination
7. Patient Assessment and Diagnosis Clinic Examination
8. Dental Emergency Clinic Examination
9. Patient and Cultural Sensitivity Written Examination
10. Health Promotion and Disease Prevention Clinic Examination (Pediatric Dentistry)

### *Senior Year*

1. Operative Dentistry Clinic (Silver Amalgam) Examination
2. Operative Dentistry Clinic (Composite Resin)
3. Periodontic Clinic Examination
4. Ethics in Dentistry Written Examination
5. Oral and Maxillofacial Surgery Written Examination



6. Oral Surgery Clinic Examination
7. Complete Denture Clinic Examination
8. Partial Denture Clinic Examination
9. Patient Assessment and Diagnosis Clinic Examination
10. Health Promotion and Disease Prevention Clinic Examination (General Dentistry)
11. Health Promotion and Disease Prevention Clinic Examination (Periodontics)
12. Dental Emergency Written Examination
13. Dental Emergency Clinic Examination
14. Pediatric Dentistry Clinic Examination
15. Ethics in Dentistry I Written Examination
16. Special Needs Patient Clinic Examination

***B2. managing a diverse patient population and having the interpersonal and communication skills to function successfully in a multicultural work environment.***

DEFINITION

1. understand the importance of communication with patients, office personnel, dentists, and other health care colleagues regarding the effective delivery of oral health care
2. understand the organization of the health care delivery system and the prominent trends toward change
3. evaluate social and economic trends and their impact on oral health care
4. understand one's own biases, the importance of assessing patients' cultural beliefs, and the importance of being able to negotiate across different belief systems in a sensitive manner to ensure the delivery of effective oral health care (cultural competence)
5. understand the business principles of personnel hiring, management and training as they relate to the communication of professional responsibilities within the work environment
6. manage and utilize auxiliaries, including the practice of four-handed dentistry
7. coordinate patient treatment with a dental hygienist

EVALUATION CRITERIA / METHODS

*Sophomore Year*

1. Oral Diagnosis Examination

## 2. Anesthesia / Pain Control Written Examination

### *Junior Year*

1. Operative Dentistry Clinic (Silver Amalgam) Examination
2. Operative Dentistry Clinic (Composite Resin) Examination
3. Community Dentistry Written Examination
4. Patient Assessment and Diagnosis Clinic Examination
5. Dental Emergency Clinic Examination
6. Patient and Cultural Sensitivity Written Examination

### *Senior Year*

1. Operative Dentistry Clinic (Silver Amalgam) Examination
2. Operative Dentistry Clinic (Composite Resin)
3. Business of Practice Written Examination
4. Ethics in Dentistry I Written Examination
5. Patient Assessment and Diagnosis Clinic Examination
6. Dental Emergency Clinic Examination
7. Pediatric Dentistry Clinic Examination
8. Ethics in Dentistry II Written Examination
9. Special Needs Patient Clinic Examination

## ***C. PRACTICE MANAGEMENT***

### ***C1. evaluating different models of oral health care management and delivery.***

#### DEFINITION

1. understand the organization of the health care delivery system and the prominent trends toward change
2. understand alternative health care delivery systems
3. understand self-evaluation and stress management and be able to define career goals

4. identify factors affecting career options including solo practice, associateships, and purchasing a dental practice
5. identify factors affecting practice location, style and format
6. identify various reimbursement mechanisms

## EVALUATION CRITERIA / METHODS

### *Junior Year*

1. Practice Planning Written Examination
2. Community Dentistry Written Examination

### *Senior Year*

1. Business of Practice Written Examination
2. Ethics in Dentistry II Written Examination

***C2. understanding the basic principles and philosophies of practice management and having the skills to function as the leader of the oral health care team.***

## DEFINITION

1. understand the provisions of the Utah Dental Practice Act
2. understand the American Dental Association Code of Ethics and similar practice codes
3. understand the principles of practice management regarding the education of staff personnel relative to their professional responsibilities
4. manage and utilize auxiliaries, including the practice of four-handed dentistry
5. coordinate patient treatment with a dental hygienist
6. understand the importance of developing, implementing and monitoring the business and legal aspects of a dental practice using expert resources including management consultants, accountants, attorneys, etc.
7. recognize the need to seek expert assistance in those situations where training or skills are insufficient or where such services would benefit the business and the practice
8. understand the use of business systems in a dental practice setting as they apply to scheduling, record keeping, reimbursement, and financial arrangements
9. understand the various responsibilities of operating a business and the attendant legal obligations

10. understand the principles of money management
11. understand the use of business management outcomes measures to assess and modify practice policies
12. understand the concepts involved with increasing productivity while maintaining quality of care, including office ergonomics and goal setting

## EVALUATION CRITERIA / METHODS

### *Sophomore Year*

1. Anesthesia / Pain Control Written Examination
2. Computer Utilization Examination

### *Junior Year*

1. Periodontic Clinic Examination
2. Practice Planning Written Examination
3. Community Dentistry Written Examination
4. Patient and Cultural Sensitivity Written Examination

### *Senior Year*

1. Periodontic Clinic Examination
2. Business of Practice Written Examination
3. Ethics in Dentistry I Written Examination
4. Pediatric Dentistry Clinic Examination
5. Ethics in Dentistry II Written Examination

## ***D. ETHICS AND PROFESSIONALISM***

***D1. understanding and applying ethical, legal, and regulatory concepts as they pertain to patient care and practice management.***

### DEFINITION

1. implement and monitor infection control and environmental safety programs according to current standards
2. understand and apply the provisions of the Utah Dental Practice Act
3. understand and apply the American Dental Association Code of Ethics and similar practice codes
4. understand and apply the principles of Ethical Conduct and Professional Behavior of Dental Students as published by the American Student Dental Association
5. apply the principles of jurisprudence to the practice of dentistry
6. understand the laws that are applicable to patient records and confidentiality
7. understand the legal and financial aspects of operating a dental practice
8. understand the principles of ethical reasoning
9. understand ethical marketing

### EVALUATION CRITERIA / METHODS

#### *Freshman Year*

1. Periodontic Technique Examination

#### *Sophomore Year*

1. Periodontic Written Examination
2. Infection Control Written Examination
3. Infection Control Technique Examination
4. Oral Diagnosis Examination
5. Anesthesia / Pain Control Written Examination

*Junior Year*

1. Treatment Rendered / Records Audit Examination
2. Operative Dentistry Clinic (Silver Amalgam) Examination
3. Operative Dentistry Clinic (Composite Resin) Examination
4. Operative Dentistry Written Examination
5. Periodontic Clinic Examination
6. TMD and Orofacial Pain Written Examination
7. Practice Planning Written Examination
8. Patient Assessment and Diagnosis Clinic Examination
9. Dental Emergency Clinic Examination
10. Health Promotion and Disease Prevention Clinic Examination (Pediatric Dentistry)

*Senior Year*

1. Treatment Rendered / Records Audit Examination
2. Endodontic Clinic (Solo Case) Examination
3. Endodontic Written Examination
4. Operative Dentistry Clinic (Silver Amalgam) Examination
5. Operative Dentistry Clinic (Composite Resin) Examination
6. Periodontic Clinic Examination
7. Business of Practice Written Examination
8. Ethics in Dentistry I Written Examination
9. Oral Surgery Clinic Examination
10. Implantology II Written Examination
11. Complete Denture Clinic Examination
12. Partial Denture Clinic Examination
13. Patient Assessment and Diagnosis Clinic Examination
14. Health Promotion and Disease Prevention Clinic Examination (General Dentistry)

15. Health Promotion and Disease Prevention Clinic Examination (Periodontics)
16. Dental Emergency Clinic Examination
17. Pediatric Dentistry Clinic Examination
18. Ethics in Dentistry II Written Examination

***D2. understanding the importance of life-long learning and self-assessment relative to professional development and the maintenance of competence.***

#### DEFINITION

1. recognize the changing environment relative to dental materials and techniques through continued study of published dental literature, continuing education courses, and other sources of information
2. monitor and critically evaluate contemporary medical/dental scientific and technical information including that obtained through published articles as well as through continuing education programs and advertisements
3. appraise completed and existing treatments and use these outcomes of patient care to guide professional development
4. understand the Standards of Care for each clinical discipline
5. understand the differences in difficulty of treatment cases for all disciplines of dentistry and the relationship this has to the practice of general dentistry
6. practice within the scope of one's competence (ability) and make appropriate referrals to professional colleagues
7. communicate effectively with appropriate health care providers regarding consultations or referrals
8. understand the importance of participation in professional organizations

#### EVALUATION CRITERIA / METHODS

##### *Sophomore Year*

1. Oral Diagnosis Examination
2. Endodontic Written Examination
3. Anesthesia / Pain Control Written Examination

##### *Junior Year*

1. Treatment Rendered / Records Audit Examination
2. Operative Dentistry Written Examination

3. Periodontic Clinic Examination
4. Evidence-Based Dentistry Written Examination
5. TMD and Orofacial Pain Written Examination

#### *Senior Year*

1. Treatment Rendered / Records Audit Examination
2. Periodontic Clinic Examination
3. Periodontic Written Examination
4. Ethics in Dentistry I Written Examination
5. Implantology II Written Examination
6. Ethics in Dentistry II Written Examination

### ***E. CRITICAL THINKING AND INFORMATION TECHNOLOGY***

***E1. using critical thinking and problem solving skills to guide clinical decision making during the comprehensive care of patients.***

#### DEFINITION

1. manage oral health care based on an application of scientific principles
2. solve case-based learning exercises in didactic and clinical learning situations
3. make judgments about the safety and efficacy of new diagnostic and treatment modalities and make appropriate decisions regarding the use of new procedures on patients
4. make judgments regarding the selection of appropriate materials and/or treatment modalities during the provision of care for dental patients

#### EVALUATION CRITERIA / METHODS

#### *Freshman Year*

1. CPR Written Examination
2. CPR Skill Demonstration Examination
3. Operative Dentistry Instrumentation Technique Examination



### *Sophomore Year*

1. Periodontic Written Examination
2. Fixed Prosthodontic Written Examination
3. Endodontic Written Examination
4. Pediatric Dentistry / Orthodontic Technique Examination
5. Removable Prosthodontic (Partial Denture) Written Examination
6. Removable Prosthodontic (Partial Denture) Technique Examination
7. Oral Pathology Written Examination
8. Operative Dentistry Written Examination
9. Class I Composite Resin Technique Examination
10. Class II Silver Amalgam Technique Examination
11. Class II Composite Resin Technique Examination
12. Class III Composite Resin Technique Examination
13. Oral Diagnosis Examination
14. Anesthesia / Pain Control Written Examination
15. Microbiology Written Examination

### *Junior Year*

1. Operative Dentistry Clinic (Silver Amalgam) Examination
2. Operative Dentistry Clinic (Composite Resin) Examination
3. Operative Dentistry Clinic (Cast Gold) Examination
4. Operative Dentistry Written Examination
5. Fixed Prosthodontic Written Examination
6. Periodontic Clinic Examination
7. Removable Prosthodontic Clinic Examination
8. Evidence-Based Dentistry Written Examination
9. CPR Written Examination

10. CPR Skill Demonstration Examination
11. TMD and Orofacial Pain Written Examination
12. Pediatric Dentistry Written Examination
13. Periodontic Case Presentation Clinic Examination
14. Radiographic Interpretation Clinic Examination
15. Patient Assessment and Diagnosis Clinic Examination
16. Dental Emergency Clinic Examination
17. Malocclusion and Space Management Written Examination
18. Medically Complex Patient Written Examination
19. Health Promotion and Disease Prevention Clinic Examination (Pediatric Dentistry)
20. Medical Emergency Written Examination

*Senior Year*

1. Endodontic Clinic (Solo Case) Examination
2. Anterior Endodontic Clinic Examination
3. Posterior Endodontic Clinic Examination
4. Pharmacology Written Examination
5. Operative Dentistry Clinic (Silver Amalgam) Examination
6. Operative Dentistry Clinic (Composite Resin) Examination
7. Pediatric Dentistry Written Examination
8. Periodontic Clinic Examination
9. Oral Pathology Examination
10. Oral and Maxillofacial Surgery Written Examination
11. Oral Surgery Clinic Examination
12. Complete Denture Clinic Examination
13. Partial Denture Clinic Examination
14. Patient Assessment and Diagnosis Clinic Examination

15. Health Promotion and Disease Prevention Clinic Examination (General Dentistry)
16. Health Promotion and Disease Prevention Clinic Examination (Periodontics)
17. Dental Emergency Written Examination
18. Dental Emergency Clinic Examination
19. Malocclusion and Space Management Written Examination
20. Malocclusion and Space Management Clinical Examination
21. Pediatric Dentistry Clinical Examination
22. Ethics in Dentistry I Written Examination
23. Special Needs Patient Clinic Examination

***E2. understanding critical assessment and scientific principles as they relate to the selection of appropriate biomaterials used in dental therapy.***

#### DEFINITION

1. manage oral health care based on an application of scientific principles
2. understand the physical and mechanical properties of dental materials and the limitations they impose on their use in dental treatment
3. select appropriate biomaterials to meet case specific esthetic, biologic, and mechanical requirements

#### EVALUATION CRITERIA / METHODS

##### *Freshman Year*

1. Occlusion Technique Examination
2. Dental Materials Written Examination
3. Operative Dentistry Instrumentation Technique Examination

##### *Sophomore Year*

1. Fixed Prosthodontic Written Examination
2. Fixed Prosthodontic Technique Examination
3. Infection Control Written Examination
4. Infection Control Technique Examination
5. Endodontic Written Examination

6. Removable Prosthodontic (Complete Denture) Written Examination
7. Removable Prosthodontic (Partial Denture) Written Examination
8. Operative Dentistry Written Examination
9. Class I Composite Resin Technique Examination
10. Class II Silver Amalgam Technique Examination
11. Class II Composite Resin Technique Examination
12. Class III Composite Resin Technique Examination
13. Oral Diagnosis Examination
14. Anesthesia / Pain Control Written Examination

*Junior Year*

1. Operative Dentistry Clinic (Silver Amalgam) Examination
2. Operative Dentistry Clinic (Composite Resin) Examination
3. Operative Dentistry Clinic (Cast Gold) Examination
4. Operative Dentistry Written Examination
5. Fixed Prosthodontic Written Examinations
6. Periodontic Clinic Examination
7. Removable Prosthodontic Clinic Examination
8. Evidence-Based Dentistry Written Examination
9. Fixed Prosthodontic Clinic Examination: Fixed Partial Denture
10. Pediatric Dentistry Written Examination
11. Health Promotion and Disease Prevention Clinic Examination (Pediatric Dentistry)

*Senior Year*

1. Operative Dentistry Clinic (Silver Amalgam) Examination
2. Operative Dentistry Clinic (Composite Resin) Examination
3. Pediatric Dentistry Written Examination

4. Periodontic Clinic Examination
5. Periodontic Written Examination
6. Fixed Prosthodontic Laboratory All Ceramic Examination
7. Fixed Prosthodontic Clinic (PFM) Examination
8. Fixed Prosthodontic Clinic (FGC) Examination
9. Fixed Prosthodontic Clinic (All Ceramic) Examination
10. Complete Denture Clinic Examination
11. Partial Denture Clinic Examination
12. Health Promotion and Disease Prevention Clinic Examination (General Dentistry)
13. Health Promotion and Disease Prevention Clinic Examination (Periodontics)

***E3. using information technology resources in contemporary dental practice.***

DEFINITION

1. use information technology and information management systems for patient care, practice management, and professional development
2. demonstrate the application of basic information technology skills

EVALUATION CRITERIA / METHODS

*Sophomore Year*

1. Computer Utilization Examination

***F. CLINICAL SCIENCES***

***F1. performing patient examination, assessment, and diagnosis procedures.***

DEFINITION

1. establish rapport and identify the patient's general needs and expectations
2. identify the chief complaint or reason for visit
3. obtain and interpret a thorough medical history, social (behavioral) history, dental history, and review of systems
4. conduct an appropriate clinical (head and neck as well as intraoral) and radiographic examination and distinguish oral pathological hard and soft tissue abnormalities

5. perform an assessment of the risk of radiation exposure and the diagnostic benefits of radiographic procedures as well as the selection of appropriate radiographs required for a diagnosis
6. order and interpret appropriate clinical laboratory and other diagnostic aids and tests
7. integrate and interpret the findings from the histories, clinical examination, radiographic examination, and other aids to identify the etiology and pathogenesis of each disorder
8. identify the problems and conditions requiring treatment
9. recognize and understand the pathologic physiology of systemic disease and its influence on oral health and treatment
10. assess the patient's risk for oral cancer and provide appropriate advice for risk reduction
11. institute any appropriate medical consultations or referrals
12. institute any appropriate dental consultations or referrals

#### EVALUATION CRITERIA / METHODS

##### *Freshman Year*

1. Periodontic Technique Examination
2. Occlusion Written Examination
3. CPR Written Examination
4. CPR Skill Demonstration Examination

##### *Sophomore Year*

1. Periodontic Written Examination
2. Fixed Prosthodontic Written Examination
3. Endodontic Written Examination
4. Removable Prosthodontic (Complete Denture) Written Examination
5. Removable Prosthodontic (Partial Denture) Written Examination
6. Oral Pathology Written Examination
7. Operative Dentistry Written Examination
8. Class I Composite Resin Technique Examination
9. Class II Silver Amalgam Technique Examination

10. Class II Composite Resin Technique Examination
11. Class III Composite Resin Technique Examination
12. Oral Diagnosis Examination
13. Anesthesia / Pain Control Written Examination

*Junior Year*

1. Treatment Rendered / Records Audit Examination
2. Operative Dentistry Clinic (Silver Amalgam) Examination
3. Operative Dentistry Clinic (Composite Resin) Examination
4. Operative Dentistry Written Examination
5. Fixed Prosthodontic Written Examination
6. Periodontic Clinic Examination
7. CPR Written Examination
8. CPR Skill Demonstration Examination
9. TMD and Orofacial Pain Written Examination
10. Pediatric Dentistry Written Examination
11. Periodontic Case Presentation Clinic Examination
12. Radiographic Interpretation Clinic Examination
13. Patient Assessment and Diagnosis Clinic Examination
14. Dental Emergency Clinic Examination
15. Malocclusion and Space Management Written Examination
16. Medically Complex Patient Written Examination
17. Health Promotion and Disease Prevention Clinic Examination (Pediatric Dentistry)
18. Medical Emergency Written Examination

### *Senior Year*

1. Treatment Rendered / Records Audit Examination
2. Endodontic Clinic (Solo Case) Examination
3. Endodontic Written Examination
4. Operative Dentistry Clinic (Silver Amalgam) Examination
5. Operative Dentistry Clinic (Composite Resin) Examination
6. Pediatric Dentistry Written Examination
7. Periodontic Clinic Examination
8. Periodontic Written Examination
9. Implantology I Written Examination
10. Oral Pathology Examination
11. Oral and Maxillofacial Surgery Written Examination
12. Oral Surgery Clinic Examination
13. Complete Denture Clinic Examination
14. Partial Denture Clinic Examination
15. Patient Assessment and Diagnosis Clinic Examination
16. Health Promotion and Disease Prevention Clinic Examination (General Dentistry)
17. Health Promotion and Disease Prevention Clinic Examination (Periodontics)
18. Dental Emergency Written Examination
19. Dental Emergency Clinic Examination
20. Malocclusion and Space Management Written Examination
21. Malocclusion and Space Management Clinical Examination
22. Special Needs Patient Clinic Examination

### ***F2. developing a comprehensive plan of treatment.***

#### DEFINITION

1. integrate multiple disciplines in the development of an appropriate, comprehensive, properly sequenced, individualized treatment plan based upon the evaluation of all diagnostic data and establish an overall prognosis



2. develop treatment alternatives based on clinical and supporting data
3. modify treatment plans in an appropriate manner if indicated by assessment of the data of special needs patients such as those with medically, mentally, or physically compromised conditions
4. discuss the findings, diagnosis, treatment options, and prognoses with the patient and educate them so they can participate in the management of their own care
5. develop and implement a sequenced treatment plan that incorporates the patient's goals, values, and concerns
6. present patients with their responsibilities regarding time requirements, sequence of treatment, estimated fees, and payment responsibilities
7. obtain informed consent and the patient's written acceptance of the treatment plan
8. initiate appropriate medical consultation or referral
9. initiate appropriate dental consultation or referral

#### EVALUATION CRITERIA / METHODS

##### *Sophomore Year*

1. Periodontic Written Examination
2. Endodontic Written Examination
3. Removable Prosthodontic (Partial Denture) Written Examination
4. Oral Diagnosis Examination
5. Anesthesia / Pain Control Written Examination

##### *Junior Year*

1. Treatment Rendered / Records Audit Examination
2. Operative Dentistry Clinic (Silver Amalgam) Examination
3. Operative Dentistry Clinic (Composite Resin) Examination
4. Operative Dentistry Written Examination
5. Periodontic Clinic Examination
6. TMD and Orofacial Pain Written Examination
7. Periodontic Case Presentation Clinic Examination

8. Patient Assessment and Diagnosis Clinic Examination
9. Medically Complex Patient Written Examination

*Senior Year*

1. Treatment Rendered / Records Audit Examination
2. Operative Dentistry Clinic (Silver Amalgam) Examination
3. Operative Dentistry Clinic (Composite Resin) Examination
4. Pediatric Dentistry Written Examination
5. Periodontic Clinic Examination
6. Periodontic Written Examination
7. Oral and Maxillofacial Surgery Written Examination
8. Complete Denture Clinic Examination
9. Partial Denture Clinic Examination
10. Patient Assessment and Diagnosis Clinic Examination
11. Ethics in Dentistry I Written Examination
12. Special Needs Patient Clinic Examination

***F3. understanding the principles of health promotion and disease prevention.***

DEFINITION

1. understand the importance of improving the oral health of individuals, families, and groups in the community through diagnosis, treatment, and education
2. recognize predisposing and etiologic factors that require intervention to prevent disease
3. recognize and understand the pathologic physiology of systemic disease and its influence on oral health and treatment
4. provide patient education regarding the etiology and control of oral diseases to maximize oral health
5. provide dietary counseling and nutritional education
6. understand and utilize behavioral science principles to motivate patients to assume appropriate responsibility for their oral health care
7. develop individualized preventive plans for patients

8. manage preventive oral health procedures including a recall system
9. perform therapies such as prophylaxes, fluorides, or sealants to eliminate local etiologic factors to control caries, periodontal disease, and other oral diseases
10. apply principles of personal infection control that are compatible with current practice including barrier protection, appropriate immunizations, hazard control, and the disposal of hazardous waste
11. utilize appropriate sterilization and disinfection procedures to prevent the transmission of disease
12. apply the principles of radiation biology and physics in a manner that is compatible with current radiation safety procedures

#### EVALUATION CRITERIA / METHODS

##### *Freshman Year*

1. Periodontic Technique Examination
2. Occlusion Written Examination

##### *Sophomore Year*

1. Periodontic Written Examination
2. Infection Control Written Examination
3. Infection Control Technique Examination
4. Endodontic Written Examination
5. Removable Prosthodontic (Partial Denture) Written Examination
6. Oral Diagnosis Examination
7. Anesthesia / Pain Control Written Examination

##### *Junior Year*

1. Operative Dentistry Clinic (Silver Amalgam) Examination
2. Operative Dentistry Clinic (Composite Resin) Examination
3. Operative Dentistry Clinic (Cast Gold) Examination
4. Operative Dentistry Written Examination
5. Periodontic Clinic Examination

6. TMD and Orofacial Pain Written Examination
7. Community Dentistry Written Examination
8. Periodontic Case Presentation Clinic Examination
9. Patient Assessment and Diagnosis Clinic Examination
10. Medically Complex Patient Written Examination
11. Health Promotion and Disease Prevention Clinic Examination (Pediatric Dentistry)

*Senior Year*

1. Operative Dentistry Clinic (Silver Amalgam) Examination
2. Operative Dentistry Clinic (Composite Resin) Examination
3. Periodontic Clinic Examination
4. Periodontic Written Examination
5. Patient Assessment and Diagnosis Clinic Examination
6. Health Promotion and Disease Prevention Clinic Examination (General Dentistry)
7. Health Promotion and Disease Prevention Clinic Examination (Periodontics)

***F4. understanding and obtaining informed consent.***

DEFINITION

1. provide optimal and empathetic care for all patients and do so in a manner that respects patient autonomy
2. understand the appropriate codes, rules, laws, and ethical principles as they relate to the practice of dentistry
3. apply the appropriate codes, rules, laws, and ethical principles to the practice of dentistry
4. understand the importance of the role of ethics in the practice of dentistry
5. understand and recognize the documentation required to verify the obtaining of informed consent

EVALUATION CRITERIA / METHODS

*Sophomore Year*

1. Infection Control Written Examination

2. Oral Diagnosis Examination
3. Anesthesia / Pain Control Written Examination

*Junior Year*

1. Treatment Rendered / Records Audit Examination
2. Operative Dentistry Clinic (Silver Amalgam) Examination
3. Operative Dentistry Clinic (Composite Resin) Examination
4. Periodontic Clinic Examination
5. Pediatric Dentistry Written Examination
6. Periodontic Case Presentation Clinic Examination
7. Dental Emergency Clinic Examination

*Senior Year*

1. Treatment Rendered / Records Audit Examination
2. Endodontic Clinic (Solo Case) Examination
3. Operative Dentistry Clinic (Silver Amalgam) Examination
4. Operative Dentistry Clinic (Composite Resin) Examination
5. Periodontic Clinic Examination
6. Ethics in Dentistry I Written Examination
7. Oral Surgery Clinic Examination
8. Endodontic Written Examination
9. Dental Emergency Clinic Examination
10. Pediatric Dentistry Clinic Examination
11. Ethics in Dentistry II Written Examination
12. Special Needs Patient Clinic Examination

***F5. managing pain and anxiety through appropriate pharmacologic and nonpharmacologic methods.***

DEFINITION

1. develop confidence, trust, and respect in the dentist-patient relationship
2. develop an understanding of human behavior and the psychological aspects of pain and apprehension; anatomy and neuroanatomy related to pain; and the physiologic and pharmacologic aspects of pain and pain control
3. perform a physical evaluation of the patient with regard to pain
4. understand the various classes of pharmacologic agents used to manage conditions of pain and anxiety
5. understand the behavioral science principles involved in the management of pain and anxiety
6. demonstrate techniques of pre-operative, operative, and post-operative pain control including the administration of local anesthetics, inhalation analgesics, and prescription medications as well as using nonpharmacologic techniques
7. prevent, recognize, and manage complications related to the use of pharmacologic agents for the management of pain and anxiety, including local anesthetics, inhalation analgesics and prescription medications
8. utilize appropriate literature or information sources in assessing medications taken by the patient that may interact with those proposed for the management of pain and anxiety

EVALUATION CRITERIA / METHODS

*Freshman Year*

1. Anatomic Sciences Written Examination
2. Physiology Written Examination

*Sophomore Year*

1. Endodontic Written Examination
2. Anesthesia / Pain Control Written Examination

*Junior Year*

1. Pharmacology Written Examination
2. Operative Dentistry Clinic (Silver Amalgam) Examination

3. Operative Dentistry Clinic (Composite Resin) Examination
4. Operative Dentistry Written Examination
5. Periodontic Clinic Examination
6. TMD and Orofacial Pain Written Examination
7. Pediatric Dentistry Written Examination
8. Dental Emergency Clinic Examination

*Senior Year*

1. Endodontic Clinic (Solo Case) Examination
2. Endodontic Written Examination
3. Pharmacology Written Examination
4. Operative Dentistry Clinic (Silver Amalgam) Examination
5. Operative Dentistry Clinic (Composite Resin) Examination
6. Pediatric Dentistry Written Examination
7. Periodontic Clinic Examination
8. Oral and Maxillofacial Surgery Written Examination
9. Oral Surgery Clinic Examination
10. Dental Emergency Clinic Examination
11. Pediatric Dentistry Clinic Examination

***F6. selecting, administering, and prescribing appropriate pharmacologic agents to manage conditions that influence dental treatment.***

DEFINITION

1. understand the various classes of pharmacologic agents used to manage conditions that influence dental treatment
2. perform a physical evaluation of the patient to determine the specific nature of the existing problem
3. demonstrate an ability to select appropriate pharmacologic agents to treat specific conditions applicable to dentistry
4. demonstrate prescription writing ability and communication skills with pharmacologically related allied health personnel

5. prevent, recognize, and manage complications related to the use of pharmacologic agents used in dentistry
6. utilize appropriate literature or information sources in assessing medications taken by the patient that may interact with those proposed for treatment

## EVALUATION CRITERIA / METHODS

### *Sophomore Year*

1. Periodontic Written Examination
2. Anesthesia / Pain Control Written Examination

### *Junior Year*

1. Pharmacology Written Examination
2. Operative Dentistry Clinic (Silver Amalgam) Examination
3. Operative Dentistry Clinic (Composite Resin) Examination
4. Operative Dentistry Written Examination
5. Periodontic Clinic Examination
6. TMD and Orofacial Pain Written Examination
7. Pediatric Dentistry Written Examination
8. Patient Assessment and Diagnosis Clinic Examination
9. Dental Emergency Clinic Examination
10. Medically Complex Patient Written Examination

### *Senior Year*

1. Endodontic Clinic (Solo Case) Examination
2. Endodontic Written Examination
3. Pharmacology Written Examination
4. Operative Dentistry Clinic (Silver Amalgam) Examination
5. Operative Dentistry Clinic (Composite Resin) Examination



6. Pediatric Dentistry Written Examination
7. Periodontic Clinic Examination
8. Periodontic Written Examination
9. Oral and Maxillofacial Surgery Written Examination
10. Oral Surgery Clinic Examination
11. Patient Assessment and Diagnosis Clinic Examination
12. Dental Emergency Clinic Examination
13. Pediatric Dentistry Clinic Examination

***F7. restoring single defective teeth with appropriate materials and techniques to establish proper form, function, and esthetics.***

#### DEFINITION

1. restore teeth with amalgam utilizing appropriate measures to ensure adequate restoration of form and function as well as the protection of the pulp and periodontal tissues
2. restore teeth with resin composite utilizing appropriate measures to ensure adequate restoration of form, function, and esthetics as well as the protection of the pulp and periodontal tissues
3. restore teeth with intracoronal cast gold utilizing appropriate measures to ensure adequate restoration of form and function as well as the protection of the pulp and periodontal tissues
4. prepare and fabricate foundation restorations
5. provide single-unit metal or porcelain-fused-to-metal restorations in both the anterior and posterior regions of the mouth to restore form, function, and esthetics and to do so while utilizing appropriate measures to ensure adequate protection of the pulp and periodontal tissues
6. fabricate and place provisional restorations utilizing procedures that ensure the protection of the pulp and periodontal tissues
7. apply the principles and concepts of esthetics to the restoration of defective teeth
8. perform all phases of treatment in the indirect restoration of teeth, including preparation of the teeth; pulp protection; gingival retraction; impression making; trimming of dies; mounting of casts; fitting and placement of the completed restoration; and post-placement maintenance
9. prepare a prescription for a dental laboratory
10. assess laboratory procedures completed by laboratory technicians

## EVALUATION CRITERIA / METHODS

### *Freshman Year*

1. Dental Materials Technique Examination
2. Operative Dentistry Instrumentation Technique Examination

### *Sophomore Year*

1. Fixed Prosthodontic Written Examination
2. Fixed Prosthodontic Technique Examination
3. Endodontic Written Examination
4. Pediatric Dentistry / Orthodontic Technique Examination
5. Operative Dentistry Written Examination
6. Class I Composite Resin Technique Examination
7. Class II Silver Amalgam Technique Examination
8. Class II Composite Resin Technique Examination
9. Class III Composite Resin Technique Examination

### *Junior Year*

1. Operative Dentistry Clinic (Silver Amalgam) Examination
2. Operative Dentistry Clinic (Composite Resin) Examination
3. Operative Dentistry Clinic (Cast Gold) Examination
4. Operative Dentistry Written Examination
5. Fixed Prosthodontic Written Examination
6. Fixed Prosthodontic Clinic Examination: Fixed Partial Denture
7. Pediatric Dentistry Written Examination

### *Senior Year*

1. Operative Dentistry Clinic (Silver Amalgam) Examination

2. Operative Dentistry Clinic (Composite Resin) Examination
3. Pediatric Dentistry Written Examination
4. Fixed Prosthodontic Laboratory All Ceramic Examination
5. Fixed Prosthodontic Clinic (PFM) Examination
6. Fixed Prosthodontic Clinic (FGC) Examination
7. Fixed Prosthodontic Clinic (All Ceramic) Examination
8. Pediatric Dentistry Clinic Examination

***F8. restoring partial or complete edentulism with fixed or removable prosthodontics in the uncomplicated patient and in managing the care of the complicated edentulous patient.***

#### DEFINITION

1. provide anterior and posterior fixed partial dentures to replace one or more missing teeth to restore normal form, function, and esthetics
2. provide diagnosis, treatment planning, mouth preparation, delivery, and maintenance of removable partial dentures
3. provide diagnosis, treatment planning, mouth preparation, delivery, and maintenance of complete dentures
4. perform tissue conditioning procedures
5. apply the principles and concepts of esthetics toward the replacement of missing teeth
6. fabricate, adjust, and place provisional restorations designed to preserve the health of the teeth and the periodontium
7. perform relining of complete dentures and/or partial dentures
8. communicate effectively with laboratory technicians, including providing laboratory prescription with directions regarding the selection of materials, design, shade, mold description, and other pertinent data
9. assess laboratory procedures completed by laboratory technicians
10. manage, through consultation or referral, the treatment of partial or total edentulism in the complicated edentulous patient

#### EVALUATION CRITERIA / METHODS

##### *Sophomore Year*

1. Fixed Prosthodontic Written Examination
2. Fixed Prosthodontic Technique Examination

3. Removable Prosthodontic (Complete Denture) Written Examination
4. Removable Prosthodontic (Complete Denture) Technique Examination
5. Removable Prosthodontic (Partial Denture) Written Examination
6. Removable Prosthodontic (Partial Denture) Technique Examination

#### *Junior Year*

1. Removable Prosthodontic Clinic Examination
2. Fixed Prosthodontic Written Examination

#### *Senior Year*

1. Implantology I Written Examination
2. Implantology II Written Examination
3. Complete Denture Clinic Examination
4. Partial Denture Clinic Examination
5. Fixed Prosthodontic (PFM & FGC) Clinic Examinations

#### ***F9. managing the restoration of partial or complete edentulism using contemporary implant procedures.***

##### DEFINITION

1. understand the indications, contraindications, advantages, and disadvantages of dental implants
2. include dental implants in the treatment plan, when appropriate, and explain the treatment options to the patient
3. evaluate existing implants using clinical and radiographic means
4. maintain existing implants in such a manner that includes prevention of peri-implant disease, proper instrumentation of implant surfaces, correct assembly of implant components, and appropriate referral of implant and implant-prosthesis problems

##### EVALUATION CRITERIA / METHODS

#### *Senior year*

1. Periodontic Written Examination
2. Implantology I Written Examination

### 3. Implantology II Written Examination

**F10. performing uncomplicated periodontal therapies and in managing the care of patients with complicated or advanced periodontal problems.**

#### DEFINITION

1. evaluate the periodontium, arrive at a diagnosis and prognosis, and formulate a plan of treatment
2. perform a dental prophylaxis, scaling, and root planing
3. manage patients requiring modification or oral tissues to optimize the restoration of form, function, and esthetics
4. evaluate the results of periodontal treatment and establish, as well as monitor, an appropriate and comprehensive maintenance program following the active phase of periodontal therapy
5. recognize the need for and be able to refer the treatment of complicated periodontal problems

#### EVALUATION CRITERIA / METHODS

##### *Freshman Year*

1. Periodontic Technique Examination

##### *Sophomore Year*

1. Periodontic Written Examination

##### *Junior Year*

1. Periodontic Clinic Examination
2. Periodontic Case Presentation Clinic Examination

##### *Senior Year*

1. Periodontic Clinic Examination
2. Periodontic Written Examination
3. Health Promotion and Disease Prevention Clinic Examination (Periodontics)

***F11. performing uncomplicated endodontic procedures and in managing the care of patients with complicated pulpal and periradicular disorders.***

DEFINITION

1. evaluate the pulp and periradicular tissues, arrive at a diagnosis and prognosis, and formulate a plan of treatment
2. prevent and manage pulpal disorders through indirect pulp therapy, direct pulp therapy, and pulpotomy procedures
3. perform uncomplicated endodontic therapy on single rooted and multirooted teeth, including molars
4. manage pulpal and periradicular disorders of traumatic origin, including apexification procedures
5. recognize the need for and be able to refer the treatment of complicated single rooted and multi-rooted endodontic cases

EVALUATION CRITERIA / METHODS

*Sophomore Year*

1. Endodontic Written Examination
2. Endodontic Solo Technique Examination

*Junior Year*

1. Endodontic Written Examination
2. Pediatric Dentistry Written Examination

*Senior Year*

1. Endodontic Written Examination
2. Anterior Endodontic Clinic Examination
3. Posterior Endodontic Clinic Examination
4. Endodontic Clinic (Solo Case) Examination
5. Pediatric Dentistry Clinic Examination

## **F12. recognizing and managing orofacial lesions.**

### DEFINITION

1. recognize, prescribe, and render appropriate treatment for uncomplicated oral pathologic abnormalities of hard and soft tissue
2. manage, through consultation or referral, complicated oral pathological abnormalities of hard and soft tissue

### EVALUATION CRITERIA / METHODS

#### *Freshman Year*

1. Dental Materials Technique Examination

#### *Sophomore Year*

1. Removable Prosthodontic (Complete Denture) Written Examination
2. Oral Pathology Written Examination

#### *Junior Year*

1. Operative Dentistry Clinic (Silver Amalgam) Examination
2. Operative Dentistry Clinic (Composite Resin) Examination
3. Operative Dentistry Written Examination
4. TMD and Orofacial Pain Written Examination
5. Pediatric Dentistry Written Examination
6. Radiographic Interpretation Clinic Examination
7. Patient Assessment and Diagnosis Clinic Examination
8. Dental Emergency Clinic Examination

#### *Senior Year*

1. Operative Dentistry Clinic (Silver Amalgam) Examination
2. Operative Dentistry Clinic (Composite Resin) Examination

3. Pediatric Dentistry Written Examination
4. Oral Pathology Examination
5. Oral and Maxillofacial Surgery Written Examination
6. Patient Assessment and Diagnosis Clinic Examination
7. Dental Emergency Written Examination
8. Dental Emergency Clinic Examination

***F13. performing uncomplicated oral surgical procedures and in managing the care of patients with complicated oral surgical problems.***

DEFINITION

1. perform uncomplicated extractions of single rooted and multi-rooted teeth
2. remove uncomplicated fractured or residual root tips
3. perform uncomplicated preprosthetic surgery
4. perform uncomplicated soft tissue biopsies
5. treat uncomplicated infections of dental origin
6. manage, through consultation or referral, complicated oral surgical problems such as hard tissue biopsies; surgical removal of impacted teeth; complicated preprosthetic surgery; complicated infections of dental origin; treatment of cysts, tumors, and fractures of the maxilla or mandible; and complicated modifications of oral tissues to optimize the restoration of form, function, and esthetics

EVALUATION CRITERIA / METHODS

*Senior Year*

1. Oral and Maxillofacial Surgery Written Examination
2. Pediatric Dentistry Written Examination
3. Oral Surgery Clinic Examination

***F14. preventing, recognizing, treating, and managing dental emergencies including pain, hemorrhage, trauma, and infection of the orofacial complex.***

DEFINITION

1. understand and manage dental emergencies of pulpal and periodontal origin
2. understand, control, manage, or promptly refer dental emergencies of traumatic origin
3. understand and manage dental emergencies resulting from treatment failure



## EVALUATION CRITERIA / METHODS

### *Sophomore Year*

1. Endodontic Written Examination
2. Periodontic Written Examination

### *Junior Year*

1. Endodontic Written Examination
2. Pharmacology Written Examination
3. Operative Dentistry Written Examination
4. Periodontic Clinic Examination
5. TMD and Orofacial Pain Written Examination
6. Pediatric Dentistry Written Examination
7. Dental Emergency Clinic Examination

### *Senior Year*

1. Endodontic Written Examination
2. Pediatric Dentistry Written Examination
3. Periodontic Clinic Examination
4. Oral and Maxillofacial Surgery Written Examination
5. Oral Surgery Clinic Examination
6. Dental Emergency Written Examination
7. Dental Emergency Clinic Examination

### ***F15. managing patients with acute and chronic occlusal and temporomandibular disorders.***

#### DEFINITION

1. diagnose malocclusion by utilizing appropriately mounted diagnostic casts and other diagnostic aids
2. perform occlusal adjustments of the natural and restored dentitions based on knowledge of indications, contraindications, and techniques for occlusal adjustment

3. fabricate and use occlusal bite plane splints to treat parafunctions, trauma from occlusion, and temporomandibular disorders
4. refer complicated cases of acute and chronic occlusal and temporomandibular disorders to appropriate health care providers

#### EVALUATION CRITERIA / METHODS

##### *Freshman Year*

1. Occlusion Technique Examination

##### *Junior Year*

1. TMD and Orofacial Pain Written Examination

***F16. performing minor tooth movement and space maintenance and in managing the care of patients with complicated or advanced orthodontic problems.***

#### DEFINITION

1. recognize interferences in normal growth and development
2. diagnose malocclusion by utilizing diagnostic casts and other diagnostic aids
3. understand the indications, contraindications, advantages and disadvantages of space maintainers
4. fabricate uncomplicated orthodontic appliances and space maintainers
5. participate in a treatment case involving active appliance therapy
6. understand the difference in difficulty between various orthodontic treatment cases and develop an understanding of which should be treated by the general practitioner and which should be referred
7. make acceptable referrals, when indicated

#### EVALUATION CRITERIA / METHODS

##### *Sophomore Year*

1. Pediatric Dentistry / Orthodontic Technique Examination

##### *Junior Year*

1. Pediatric Dentistry Written Examination
2. Malocclusion and Space Management Written Examination

*Senior Year*

1. Pediatric Dentistry Written Examination
2. Malocclusion and Space Management Written Examination
3. Malocclusion and Space Management Clinical Examination

***F17. appraising completed and existing treatments and in using these outcomes of patient care to guide professional development.***

DEFINITION

1. monitor therapeutic outcomes and use this to re-evaluate and/or modify the initial diagnosis or therapy
2. understand the importance and process of conducting both records and treatment audits
3. understand the Standards of Care for each clinic discipline
4. determine the causes of noted treatment deficiencies
5. document noted deficiencies and be able to prescribe appropriate corrective measures

EVALUATION CRITERIA / METHODS

*Sophomore Year*

1. Oral Diagnosis Examination

*Junior Year*

1. Treatment Rendered / Records Audit Examination
2. Operative Dentistry Clinic (Silver Amalgam) Examination
3. Operative Dentistry Clinic (Composite Resin) Examination

*Senior Year*

1. Treatment Rendered / Records Audit Examination
2. Operative Dentistry Clinic (Silver Amalgam) Examination
3. Operative Dentistry Clinic (Composite Resin) Examination

***F18. preventing, recognizing, managing and treating, for the short-term, acute medical emergencies in the dental environment including the provision of life support measures.***

DEFINITION

1. anticipate, diagnose, and provide initial treatment as well as follow-up management for medical emergencies such as unconsciousness, allergic reaction, seizure, drug overdose, and cardiac arrest that occur during dental treatment
2. maintain certification in cardio-pulmonary resuscitation and be able to provide appropriate life support measures

EVALUATION CRITERIA / METHODS

*Freshman Year*

1. CPR Written Examination
2. CPR Skill Demonstration Examination

*Sophomore Year*

1. Anesthesia / Pain Control Written Examination

*Junior Year*

1. Operative Dentistry Clinic (Silver Amalgam) Examination
2. Operative Dentistry Clinic (Composite Resin) Examination
3. CPR Written Examination
4. CPR Skill Demonstration Examination
5. Medical Emergency Written Examination

*Senior Year*

1. Operative Dentistry Clinic (Silver Amalgam) Examination
2. Operative Dentistry Clinic (Composite Resin) Examination
3. Oral and Maxillofacial Surgery Written Examination
4. Pediatric Dentistry Written Examination

***F19. assessing the treatment requirements of patients with special needs.***

DEFINITION

1. recognize those situations where medical, physical, psychological or social situations make it necessary to modify dental routines in order to provide dental treatment
2. apply appropriate interpersonal and communication skills to patients with special needs
3. assess and prescribe dental treatment that is compatible with special needs

EVALUATION CRITERIA / METHODS

*Junior Year*

1. Patient and Cultural Sensitivity Written Examination
2. Operative Dentistry Written Examination
3. Medically Complex Patient Written Examination
4. Periodontic Case Presentation Clinic Examination
5. Patient Assessment and Diagnosis Clinic Examination

*Senior Year*

1. Oral Surgery Clinic Examination
2. Patient Assessment and Diagnosis Clinic Examination
3. Special Needs Patient Clinic Examination

***F20. performing and managing requisite technical and laboratory procedures attendant to the provision of dental restorations.***

DEFINITION

1. perform laboratory procedures most conveniently done in a dental office such as impression trays, record bases, simple repairs, polishing prostheses, construction of uncomplicated indirect restorations, etc.
2. prepare a work authorization that clearly indicates the design of a restoration or prosthesis, the materials to be used in its fabrication, appropriate shade and mold descriptions, and other pertinent data
3. assess those procedures accomplished by laboratory technicians

EVALUATION CRITERIA / METHODS

*Sophomore Year*

1. Fixed Prosthodontic Written Examination
2. Fixed Prosthodontic Technique Examination
3. Removable Prosthodontic (Complete Denture) Written Examination
4. Removable Prosthodontic (Complete Denture) Technique Examination
5. Removable Prosthodontic (Partial Denture) Written Examination
6. Removable Prosthodontic (Partial Denture) Technique Examination
7. Operative Dentistry Written Examination

#### *Junior Year*

1. Fixed Prosthodontic Written Examination
2. Removable Prosthodontic Clinic Examination

#### *Senior Year*

1. Implantology II Written Examination
2. Complete Denture Clinic Examination
3. Partial Denture Clinic Examination

These competencies will be conveyed to the students by several means. They will be published on the School of Dentistry website (under Student Section) which will be accessible through the University of Utah University website of [www.utah.edu](http://www.utah.edu). They will also be published in the bulletin of the University of Utah School of Dentistry and in the Clinic Manual. They will be distributed to the students on an annual basis as a part of a packet of academic policies and procedures. This document, which will be academic-year specific, also will inform the students of which competency examinations will be administered during that year as well as which competencies will be covered on each specific examination. Finally, each academic offering that is associated with a competency examination has a similar explanation of that test included within its syllabus.

The DDS program will define competence as the possession of sufficient knowledge, skills, and values to identify a problem and act skillfully to reach a solution in a manner that is consistent with the activity of a dentist in an unsupervised practice environment. The dental program will identified 30 competencies that define this general private practice activity. The primary method of student evaluation designed to measure the attainment of these 30 competencies at the University of Utah School of Dentistry will be the use of specific competency examinations. Most of these exercises will be conducted as a part of a required course, however, several will be "stand alone" activities not associated with any academic offering. Examples of the latter include clinical examinations in operative dentistry, periodontics, and endodontics; the treatment rendered/record keeping examinations; and the sophomore computer utilization examination.

Successful completion of these exercises must take place before advancement can occur, however, no academic grade will be issued for this achievement. From a data-tracking standpoint, only passes and failures will be recorded. The competency examinations that occur as a portion of an existing curricular offering must also be successfully completed before advancement can occur. These examinations, however, usually will play a role in course grade determination. It must be pointed out, though, that regardless of what the course grade is, the competency examination must be successfully completed before the student is allowed to advance in the DDS program. Because of examination weighting and the cumulative effects of several tests, it will be possible to pass a course (with a low grade) and yet fail the competency examination. When the Curriculum Committee reviews the academic performance of the students, both course grades and competency examination results will be considered. This information will be gathered by the School of Dentistry's Office of the Assist/Assoc Dean of Student Affairs shortly after the conclusion of each semester. Despite the fact that the student in the example above passed the course, the competency examination failure will preclude the Curriculum Committee from recommending to the Dean advancement to the next level.

The evaluation of competence will be an ongoing process that requires a variety of assessments. This process will occur throughout training for the DDS degree and involve a number of constituencies. The fact that the evaluation of the competencies will occur over time indicates that the process is ongoing. That several academic units will be involved in the evaluation process for most competencies attests to the variety of assessments that will be made as does the fact that numerous examinations will be involved. The specific evaluation methods that measure the attainment of each competency will be grouped by academic year and are presented above. As mentioned previously, this information will be presented to each student on a year-specific basis at the time of registration for each academic year. The table that follows summarizes this information and quantifies the concept that the evaluation of competence as part of obtaining the DDS degree at University of Utah School of Dentistry will be an ongoing process that involves a variety of measurements. As a point of reference, there will eventually be eight academic units or departments at the School involved in the process of establishing competencies that will lead to the DDS.

<b>COMPETENCY EXAMINATION DATA Competency</b>	<b>Years Evaluated</b>	<b>Number of Examinations</b>	<b>Number of Disciplines</b>
<b>A1. Biomedical Sciences</b>	Fr So Jr Sr	29	6
<b>B1. Apply Behavioral Science</b>	Fr So Jr Sr	21	6
<b>B2. Manage Diverse Population</b>	So Jr Sr	12	3
<b>C1. Evaluate Health Care Management</b>	Jr Sr	4	1
<b>C2. Practice Management</b>	So Jr Sr	9	3
<b>D1. Ethical &amp; Legal Concepts</b>	Fr So Jr Sr	26	6
<b>D2. Life Long Learning</b>	So Jr Sr	14	6
<b>E1. Critical Thinking &amp; Problem Solving</b>	Fr So Jr Sr	47	8

E2. Selection of Materials	Fr So Jr Sr	36	6
E3. Information Technology	Fr So	2	1
F1. Patient Examination & Diagnosis	Fr So Jr Sr	46	7

From the foregoing, it is apparent that the evaluation of competence in the DDS program will be an ongoing process with a wide variety of assessments being conducted by multiple constituencies to determine the acquisition and integration of knowledge, values and skills. Concurrently, an assessment of the processes and procedures which will be necessary for entry level practice will also be made. The competency examinations in the Biomedical Science domain primarily will measure the acquisition of knowledge. Those in the Behavioral Science, Practice Management, Ethics/Professionalism, and Critical Thinking/ Information Technology domains will measure the attainment of knowledge as well as assess the processes and procedures which will be necessary for entry level practice. Finally, the competency examinations in the Clinical Sciences domain primarily will measure the acquisition of knowledge and specific clinical skills.

The DDS program will use what has been described as a "lock-step" type of curriculum. All students in a given academic year will take all didactic and laboratory courses and associated examinations, including competency assessments, at the same time. The timing of the offering of these evaluations will be clearly presented in the syllabus of each appropriate course so all students will be aware of the scheduling for all of these events. All clinical courses will be conducted concurrently, however, the degree of participation in each at any given point in time may vary due to differences in patient treatment needs and the clinical progression of the students. The offering of clinical competency examinations will be essentially split between allowing the student to challenge when he/she believes he/she is ready or scheduling the assessment to occur as a block event for either a large segment of the class or the entire class. The time required to conduct a particular discipline's assessment and the availability of resources to do so will be the primary determining factors that dictate which format will be used. Procedures such as non-complicated extractions, single canal endodontics, periodontic case presentations, oral diagnosis, and treatment rendered assessments, which typically do not involve large amounts of time, are examples of the "challenge when ready" format. Assessments of more complex treatments or those which require multiple evaluators to simulate licensure examination conditions, will usually be offered to the entire class at a time that is scheduled by the School. Because of the variance in clinical course participation mentioned above, these examinations will be scheduled to occur near the conclusion of the academic year to allow all students ample time in each discipline's clinic to develop the requisite knowledge and skills to successfully challenge the competency. Examples of disciplines involved in this format include restorative dentistry, prosthodontics and periodontics.

The criterion for the determination of the successful achievement of competence in a particular area will be the passage of all competency examinations associated with its competency statement. The criterion for the determination of the successful achievement of all competencies associated with the educational program will be the passage of all competency examinations offered by the dental program. All such examinations offered during a given academic year must be passed before advancement is possible. Cumulatively, this will result in the successful completion of all competency examinations offered by the institution which would lead to the determination of the achievement of competence in the 30 areas outlined by the DDS curriculum. Institutional responsibility for the assurance that all competency examinations have



been successfully completed will be shared between the School of Dentistry's Assist/Assoc Dean of Student Affairs and the Curriculum Committee. Competency examination performance data will be gathered from examination administrators by the Office of the Assist/Assoc Dean of Student Affairs as a part of the process that collects coursework grades. A competency examination reporting form will be developed for this purpose. One of the items on this form will ask the examination administrator to report the names of all students who have not successfully completed the competency test in question. Once reported to the Assist/Assoc Dean of Student Affairs, a notation will be made on a master tracking form. This information will then be presented to the Curriculum Committee for deliberations regarding advancement. Students who do not successfully challenge their competency examinations will be advised of such by the examination administrator. The consequences with respect to advancement will be conveyed to the Assist/Assoc Dean of Student Affairs and the Curriculum Committee. Once the student passes the competency examination that was failed initially, the examination administrator will inform the Assist/Assoc Dean of Student Affairs. The master tracking form will be amended accordingly and, if all other obligations have been met, the student will be allowed to advance.

Prior to graduation, the School of Dentistry's Office of the Assist/Assoc Dean Student Affairs will conduct a "sign out" process whereby prospective graduates must receive signatures from key personnel indicating that all academic, clinical, administrative, and financial responsibilities have been met. Among these will be the successful completion of all competency examinations and the signature of the Assist/Assoc Dean Student Affairs will be required as proof of that fact. This demonstrates that the University of Utah DDS program will employ student evaluation methods that measure its defined competencies. It will do so with a process that uses a variety of assessments from a broad base of constituencies, it will be ongoing, and will be closely monitored by key administrative personnel for successful completion.

Section V:  
Finance

Budget

5-Year Budget Projection						
Departmental Data	Current Budget— Prior to New Program Implementation	Year 1	Year 2	Year 3	Year 4	Year 5
<b>Personnel Expense</b>						
Salaries & Wages	1,400,723	2,246,559	2,962,015	4,153,249	5,585,933	7,144,935
Benefits	462,239	741,364	977,465	1,370,572	1,843,358	2,357,829
<b>Total Personnel Expense</b>	<b>1,862,961</b>	<b>2,987,923</b>	<b>3,939,480</b>	<b>5,523,821</b>	<b>7,429,291</b>	<b>9,502,764</b>
<b>Non-personnel Expense</b>						
Travel	25,000	45,000	65,000	100,000	145,000	185,000
Capital	85,000	85,000	125,000	160,000	740,000	795,000
Library	-	30,000	30,000	30,000	30,000	30,000
Current Expense	441,924	883,448	1,386,523	2,402,043	3,314,588	4,028,380
<b>Total Non-personnel Expense</b>	<b>551,924</b>	<b>1,043,448</b>	<b>1,606,523</b>	<b>2,692,043</b>	<b>4,229,588</b>	<b>5,038,380</b>
<b>Total Expense (Personnel + Current)</b>	<b>\$2,414,885</b>	<b>\$4,031,371</b>	<b>\$5,546,003</b>	<b>\$8,215,864</b>	<b>\$11,658,879</b>	<b>\$14,541,144</b>
<b>Departmental Funding</b>						
	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Year 5</b>	
Appropriated Fund	255,989	511,978	511,978	511,978	511,978	511,978
Other: Clinic Income	2,090,466	2,144,180	2,199,506	2,632,116	3,253,297	3,949,499
Special Legislative Appropriation	-	-	-	-	-	-
Grants and Contracts	200,000	1,418,000	1,854,810	3,066,909	4,601,221	5,677,822
Special Fees/Differential Tuition	-	25,000	1,027,234	2,102,191	3,332,201	4,441,705
<b>Total</b>	<b>\$2,546,455</b>	<b>\$4,099,158</b>	<b>\$5,593,528</b>	<b>\$8,313,194</b>	<b>\$11,698,697</b>	<b>\$14,541,004</b>
<b>Difference</b>						
Revenue – Expense	\$131,570	\$67,787	\$47,525	\$97,330	\$39,818	\$39,860
Departmental Instructional Cost/Student Credit Hour* (as reported in institutional Cost Study for “current” and using the same Cost Study Definition for “projected”)	\$	\$	\$	\$	\$	\$

\* Projected Instructional Cost/Student Credit Hour data contained in this chart are to be used in the Third-Year Follow-Up Report and Cyclical Reviews required by R411.

**Funding Sources**

The initial inaugural class will be 20 Utah resident students/year and will utilize existing state line item appropriation for dental education (no new state appropriation). In addition, student tuition and fees, clinic income and development start-up funds will be used to operate the education program.

## Reallocation

No reallocation of funds is anticipated at this time.

## Impact on Existing Budgets

No impact on current base budgets is anticipated at this time. The program will generate its own revenues to operate the program.

### Section VI: Program Curriculum

#### All Program Courses SCHEDULE OF COURSES (FRESHMAN YEAR)

Course Title	Semester	Clock Hours				Total	Faculty
		Sem. Or Lect.	Lab.	Clin.	Other		
Interpersonal Relationships / Communication	I	16				16	Hammond
Preventive Dentistry	I	16	15			31	Bailey
History of Dentistry	I	8				8	Steed
Dental Material Science Lecture	I	16				16	Faddis
Dental Materials Science Laboratory	I		32			32	Faddis /Staff
Dental Anatomy Lecture	I	16				16	Woodward
Dental Anatomy Laboratory	I		112			112	Woodward/ Staff
Biochemistry Lecture	I	64				64	Sorenson
Histology Lecture and Laboratory	I	48	48			96	Ash
General Gross Anatomy	I	32	96			128	Morton
Radiology Lecture	I	16				16	Aldous
Basic Computing Skills for Dental Students	I						
Radiology Lecture	II	16				16	Aldous
Radiology Laboratory	II		12			12	Aldous
Community Dentistry Field Experience	II				20	20	Powell
Clinic Observation	II			20		20	Powell
Dental Materials Science Lecture	II	32				32	Lowder
Dental Materials Science Laboratory	II		32			32	Lowder/Staff
Occlusion Lecture	II	16				16	Lowder
Occlusion Laboratory	II		48			48	Lowder/Staff
Head and Neck Anatomy	II	32	60			92	Morton
Oral Histology and Embryology	II	40	48			88	Albertine
Physiology	II	64				64	Michel
Applied Biomedical	II						Hanson
Cardio-Pulmonary Resuscitation	II	2	4			6	Powell
Periodontal Instrumentation	II	6		9		15	Bailey
General Neuroscience	II	32				32	Morton
Nutrition Lecture	II	16				16	Packer

### SCHEDULE OF COURSES (SOPHOMORE YEAR)

Course Title	Semester	Clock Hours				Total	Faculty
		Sem. Or Lect.	Lab.	Clin.	Other		
Infectious Disease Control in Dentistry	I	8				8	
Radiology Lecture	I	16				16	
Radiology Laboratory	I		12			12	
Introduction to Clinic Lecture	I	24				24	
Introduction to Clinic Laboratory	I		140			140	
Periodontic Lecture	I	16				16	
General Pathology Lecture	I	82				82	
Complete Denture Prosthodontic Lecture	I	16				16	
Complete Denture Prosthodontic Laboratory	I		112			112	
Oral Diagnosis	I	16		20		36	
Endodontic / Pulp Biology Lecture	I	16				16	
Fixed Prosthodontic Lecture	I	16				16	
Fixed Prosthodontic Laboratory	I		72			72	
Operative Dentistry Lecture	I	16				16	
Operative Dentistry Laboratory	I		112			112	
Microbiology Lecture	I	64	4			68	
Physical Growth & Development Lecture	I	16				16	
Pain Control / Anesthesia	II	32		24		56	
Pediatric Dentistry-Orthodontic Technique	II		64			64	
Oral Pathology Lecture	II	72				72	
Periodontic Lecture	II	16				16	
Basic Endodontic Techniques Lecture	II	16				16	
Endodontic Preclinical Laboratory	II		48			48	
Removable Partial Denture Lecture	II	16				16	
Removable Partial Denture Laboratory	II		48			48	
Radiology Laboratory	II		8			8	
Oral Hygiene and Recall Clinic	II			8		8	
Fixed Prosthodontic Lecture	II	16				16	
Fixed Prosthodontic Laboratory	II		96			96	

### SCHEDULE OF COURSES (SOPHOMORE YEAR)

Course Title	Semester	Clock Hours				Total	Faculty
		Sem. Or Lect.	Lab.	Clin.	Other		
Operative Dentistry Lecture	II	16				16	
Operative Dentistry Laboratory	II		104			104	

### SCHEDULE OF COURSES (JUNIOR YEAR)

Course Title	Semester	Clock Hours				Total	Faculty
		Sem. Or Lect.	Lab.	Clin.	Other		
Dental Pharmacology I	I	40				40	
Radiographic Interpretation Lecture	I	16				16	
Medically Complex Patient Lecture	I	16				16	
Problem Solving in Endodontics Lecture	I	16				16	
Fixed Prosthodontic Lecture	I	16				16	
Operative Dentistry Lecture	I	16				16	
Periodontic Lecture	I	16				16	
Physical Diagnosis / Medical Emergency Lecture	I	16				16	
Removable Partial Denture Lecture	I	16				16	
Cardio-Pulmonary Resuscitation	I	1	2			3	
Orthodontic Lecture	I	16				16	
Pediatric Dentistry Lecture	I	32				32	
Patient and Cultural Sensitivity Lecture	I	16				16	
Clinic Activity Points	I			N/A			
Dental Public Health Lecture	II	16				16	
Evidence-Based Dentistry Lecture	II	16				16	
Practice Planning Lecture	II	16				16	
Fixed Prosthodontic Lecture	II	16				16	
Operative Dentistry Lecture	II	16				16	
Periodontic Lecture	II	16				16	
Complete Denture Prosthodontic Lecture	II	16				16	
Dental Pharmacology II	II	24				24	
Oral Surgery Lecture	II	24				24	
TMD / Orofacial Pain Lecture	II	16				16	
Applied Orthodontics Lecture	II	16				16	
Clinic Activity Points	II			N/A			
Periodontic Clinic	I, II			117		117	
Diagnosis and Radiology Clinic	I, II			117		117	
Removable Prosthodontic Clinic	I, II			141		141	

Endodontic Clinic	I, II			94		94	
Fixed Prosthodontic Clinic	I, II			164		164	
Oral Surgery Clinic	I, II			60	12	72	
Operative Dentistry Clinic	I, II			258		258	
Orthodontic Clinic	I, II			30		30	
Pediatric Dentistry Clinic	I, II			32		32	
Community Dentistry Field Experience	I, II				23	23	

### SCHEDULE OF COURSES (SENIOR YEAR)

Course Title	Semester	Clock Hours				Total	Faculty
		Sem. Or Lect.	Lab.	Clin.	Other		
Business of Practice Lecture	I	16				16	
Oral Pathology Lecture	I	16				16	
Ethics in the Practice of Dentistry I Lecture	I	24				24	
Cosmetic Dentistry	I	4	28			32	
Advanced Endodontics Lecture	I	16				16	
Fundamentals of Implantology Lecture	I	16				16	
Operative Dentistry Lecture	I	16				16	
Dental Pharmacology Update	I	16				16	
Oral Surgery Lecture	I	16				16	
Orthodontic Lecture	I	16				16	
Periodontic Lecture	I	16				16	
Topics in Prosthodontic Lecture	I	16				16	
Clinic Activity Points	I			N/A			
Pediatric Dentistry Lecture	I	8				8	
Ethics in Dentistry II	II	16				16	
Financial Planning and Jurisprudence Lecture	II	16				16	
Advanced Implantology Lecture	II	8				8	
Clinic Activity Points	II			N/A			
Community Dentistry Field Experience	I, II				25	25	
Oral Diagnosis & Treatment Planning Clinic	I, II			149		149	
Fixed Prosthodontic Clinic	I, II			198		198	
Operative Dentistry Clinic	I, II			248		248	
Removable Prosthodontic Clinic	I, II			124		124	
Endodontic Clinic	I, II			99		99	
Oral Surgery Clinic	I, II			60		60	
Orthodontic Clinic	I, II			30		30	
Pediatric Dentistry Clinic	I, II			56		56	
Periodontic Clinic	I, II			124		124	

## Section VII: Faculty

The current faculty members in the existing program and their qualifications are listed below:

Albertine, K. H.

BA '75 Lawrence University,  
PhD '78 Loyola Stitch School of Medicine  
Professor Neurobiology & Anatomy,

Aldous, J. A.

MS '61 Northwestern University  
DDS '59 Northwestern University  
Associate Professor Dental Education

Ash, J. F.

BS '69 University of Illinois  
PhD '74 Stanford University  
Professor Neurobiology & Anatomy

Bailey, G. M.

BS '71 Brigham Young University  
DDS '75 Northwestern University  
Cert. '77 Northwestern University (Periodontics)  
Adjunct Asst. Professor Dental Education

Christensen, G. J.

DDS '60 University of Southern California  
MSD '63 University of Washington (Prosthodontics)  
PhD '72 University of Denver  
Adjunct Professor Dental Education

Faddis, K. A.

BS '85 University of Utah  
DDS '90 Creighton University  
Adjunct Instructor Dental Education

Hammond, D. C.

PhD '74 University of Utah  
Adjunct Professor Physical Medicine & Rehabilitation

Hanson, G.

DDS, '73 UCLA  
PhD '78 University of Utah  
Professor Pharmacology & Toxicology

Lowder, G. W.

BS '72 Brigham Young University  
DDS '76 University of Washington  
Asst. Professor Dental Education

Michel, W.C.

PhD '85 U of Cal. Santa Barbara  
Professor Physiology

Morton, D.

BS '98 Brigham Young University  
MS '01 University of Utah  
PhD '03 University of Utah  
Asst. Professor Neurobiology & Anatomy

Olsen, B. T.

BA '84 Utah State University  
DDS '87 University of Texas, San Antonio  
Cert. '89 U.T.H.S.C. S. A -(Pediatrics)  
MS '94 University of Texas, Houston (Orthodontics)  
Adjunct Asst. Professor Dental Education

Olson, C. J.

BA '72 University of Utah Asst.  
DDS '77 West Virginia University  
Professor Dental Education

Packer, B.

BA '64 University of Utah  
DDS '68 Northwestern  
Adjunct Instructor Dental Education

Powell, G. L.

BS '64 University of Utah  
DDS '68 University of Washington  
Professor Dental Education

Sorenson, D. K.

BS '69 Brigham Young University  
MS '78 University of Utah  
PhD '75 Utah State University  
Asst. Professor Medical Informatics



Steed, S. J.

BS '70 Brigham Young University  
DDS '74 Northwestern University  
Adjunct Instructor Dental Education

Woodward, R. O.

DDS '68 University of Washington  
Adjunct Instructor Dental Education

## **Addendum: Responses to Executive Committee Inquiries**

### ***Introduction:***

It is gratifying that the EC is very supportive of the School of Dentistry proposal and wants to partner with Health Sciences to make it work. We realize that this spirit of cooperation is essential for the success of this effort and will greatly contribute to a favorable outcome for a School of Dentistry that is well integrated with other University of Utah Colleges. We acknowledge and agree with the EC statement that because the last college established at the University of Utah was decades ago, we all lack practical experience in this process at the University of Utah. Thus, the only guidelines to help us through the academic review application process were associated with the R401 Template available from the Utah System of Higher Education for approval of new programs and degrees. Because of the generic nature of this template, apparently several issues of relevance to EC's evaluation, especially as it relates to establishing a new college-level program, were not included. For this reason, we will address each of the EC comments in order to help the members of your committee, and other groups who will evaluate this application, render an appropriate decision regarding the development and implementation of a college-level School of Dentistry. However, it should be noted that most of the issues raised by the EC have been addressed in considerable detail in our accreditation documents recently submitted to the Commission on Dental Accreditation (CODA). This document was highly praised by CODA for its comprehensiveness and resulted in scheduling a CODA commission for an onsite accreditation visit March 27-28, 2012. If the EC desires greater detail than provided below, we can make this accreditation application available.

### **I. General:**

The EC expressed a concern regarding jurisdiction and suggests that the combined R401 application be split into separate proposals for the degree (DDS) and the new college. While we appreciate the rationale for the request, because the R401 template we are required to use by the Utah System of Higher Education does not make a distinction between degrees and programs designed to offer degrees, we only submitted a single application. Consequently, the two R401 applications would be almost identical with the only major difference being that one requests permission to offer the DDS degree and the other requests permission to create a dental school. Despite this lack of distinction between the applications in the R401 template, we are willing to separate them as requested and produce two separate documents. However, we are also including this present response as an *addendum* to the R401 document that is more germane to the consideration for initiating a college-level School of Dentistry at the University of Utah

### **II. Implementation Plan:**

#### **a. What is the implementation plan?**

The lack of clarity about an implementation plan in the R401 proposal is due in part to the fact that there is not a section devoted exclusively to this issue, but rather it appears to be implied under different categories. Hopefully, the following explanations will help the EC evaluate how various aspects of the School of Dentistry will achieve a fully functional status and realize its academic mission.

*Background:* The proposals for a four-year dental degree program and a School of Dentistry (college-level) were submitted according to the guidelines described in the requisite R401 template provided by the Utah System of Higher Education. In order to assist the EC and others charged to evaluate the proposal, especially for the new School of Dentistry, it is important to appreciate that the School will include more than the 4-year D.D.S.-granting program. These other programs include:

- the General Practice Residency Program that hopefully exists in the current Department of Dental Education
- proposed specialty training programs that will lead to postgraduate Masters degree specialties in Pedodontics, Periodontics and Oral Pathology
- existing and planned research programs based on collaborative efforts with other colleges and departments
- University of Utah satellite dental clinics, staff and equipment
- (v) dental-related continuing education programs.

Each of these School of Dentistry endeavors, in addition to the State line-item appropriation for dental education, dental education accounts, and endowment funds (currently in excess of \$50 million) will contribute to, and will be a part of, the overall rubric of the School of Dentistry.

The new University of Utah School of Dentistry will be completely independent of the University of Creighton program, meaning that the current Regional Dental Education Programs (both Creighton-linked and At-Large) will no longer accept students after July 1 2012. The proposed new 4-year dental degree-granting dental education program will accept its first entering class of 20 Utah resident students for classes beginning August 2013. Each year thereafter the School of Dentistry will accept an additional minimum of 20 Utah resident students into a new first-year class resulting in a total of at least 80 pre-doctoral students by the 4<sup>th</sup> year.

The following is an ***Implementation Timeline*** for the 4-year degree granting program:

***FY 2012-2013***

During this initial year we will recruit and admit students for the first entering class in August 2013. Programming and schematic design for the new building will be completed, the project bid and construction will begin. Recruitment of additional faculty for a sophomore year (2014) class will begin. Note that the preclinical and basic faculty for the freshman-year students are already in place as they were part of the previous Creighton-linked regional dental education program and has taught the freshman curriculum to dental students in excess of 20 years.

***FY 2013-2014***

The first class of the new dental program will enter its freshman year (year D1) in August 2013 and will receive its 1<sup>st</sup>-year training using the established faculty and curriculum. The 2<sup>nd</sup> entering class will be recruited and admitted for August of 2014. Additional basic science and clinical faculty will be recruited and hired in preparation for the sophomore-year (year D2) curriculum. These faculty members will be recruited to not only provide instruction to the dental students, but also to engage in research and other scholarly activities as well as provide service to the college, University, and community. Completing and equipping of the dental building will be completed and offices, laboratories, clinics, and teaching rooms will be ready to be occupied by faculty, staff and students.

***FY 2014-2015***

The 2<sup>nd</sup> entering class will begin its freshman year in August 2014 and the D1 and D2 curricula will be taught to the students. The 3<sup>rd</sup> entering class will be recruited for admission in August 2015. Additional faculty will continue to be hired in preparation for providing a 3<sup>rd</sup>-year curriculum to a junior class as well as to more fully develop the School's research and service programs. Because of the clinic-intensive nature of the D3 year, there will be a special emphasis on employing clinical faculty. In addition, with the clinical emphasis for D3 students, patient recruitment processes will be developed and implemented. The preparation for the 2<sup>nd</sup> accreditation site visit by CODA will begin.

**FY 2015-2016**

The 3<sup>rd</sup> entering class will begin August 2015 and the Year D1, D2 and D3 curricula will be taught to respective classes. The 4<sup>th</sup> entering class will be recruited for admission in August 2016. Additional faculty will be hired in preparation to provide instruction to senior-year students in 2016-2017. The Junior-class students will be in the clinics treating patients on a regular basis.

**FY 2016-2017**

The 4<sup>th</sup> entering class will enter in August 2016, resulting in full curricular content (Year D1, D2, D3, D4) being taught at the School of Dentistry. The 5<sup>th</sup> entering class will be recruited and admitted for August 2017. Faculty and staff will be at optimal strength for providing instruction, conducting research and engaging in service and additional hiring will be done principally for replacement. Third- and fourth-year students will be heavily engaged in the treatment of patients both in the School of Dentistry building as well as in University of Utah community and mobile clinics. Preparation for the final accreditation site visit will be completed this year. The first class is scheduled to graduate in May 2017.

**(i) Faculty/staff and Services**

The number and distribution of faculty and staff at the University of Utah School of Dentistry will be sufficient to meet the dental school's stated purpose/mission, goals and objectives and make the School of Dentistry fully compliant with accreditation standards. The first year (2013/2014) of the dental program will consist of 22 fulltime FTE faculty members with 4 administrators and 7 in basic sciences, 6 in the clinical sciences and 5 in research. In addition, there will be 9 part-time faculty with 4 in basic sciences and 5 in the clinical sciences. At the time of full implementation (by 2016/2017), the year of the first graduating class), there will be 42 full-time FTE faculty positions (32 tenure track) with 22 in clinical services, 20 in basic sciences and research with an additional 45 part-time faculty. All administrators will be actively involved in clinical, basic science education or research.

The University of Utah currently provides a full complement of centralized university resources, all of which are readily accessible on the main campus. These functions are all fully in service and provide excellent support to existing University of Utah programs and currently cover a full spectrum of services and have done so for many years. These outstanding resources are readily accessible and committed to the success of all University of Utah students and programs, such as a dental school. This arrangement will help to establish and achieve consistent standards of excellence in academics, service, training and research while facilitating collaborative efforts in these areas across colleges and programs. This arrangement will foster a team mindset thereby encouraging a holistic approach in healthcare management. The resources include, but are not limited to:

**Administrative Management**

University Central Administration

Ombuds Office

Transcript Office

Alumni Association

Space and Planning Office

Travel Office

Public Policy and Administration Office

### **Learning Resources**

Learning Enhancement Program

Eccles Health Sciences Library

Network and Communication Services

Science Education and Outreach

### **Research**

Grants and Sponsored Projects Management

Technology Transfer

Animal Resource Center

Clinical Research Center

Huntsman Cancer Institute

Antiseizure Drug Development Program

Utah Addiction Center

Resource for Genetic and Epidemiologic Research

ARUP National Reference Laboratory

### **Faculty and Staff Management**

Human Resources

Disability Services

Equal Opportunity and Employment Services

Presidential Commission on the Status of Women

## **Student Services**

Alcohol and Drug Education Center

Office of Student Affairs

Campus Recreation Services

Counseling Center

Office of Health Promotion

Insurance Office (student health services)

Office of Residential Living

Student Health Services

Tutoring services office

Student Union Center

Veteran Affairs Office

Women Resource Center

Health Science Book Store

## **Financial**

Financial Aid and Scholarship

Financial Accounting Services

Research Accounting Services

Internal Audit Office

Investment Management

Income Accounting and Student Loan Services

Contract Administration

Grants and Sponsored Projects Management

Purchasing

## **Custodial, Maintenance and Environment**

Campus Utility Services

Environmental Health and Safety

Plant Operations

Public Safety Office

Radiological Health Security

Occupational and Environmental Health Center

Office of Custodial and Operational Services

These highly experienced and efficient University of Utah support systems will substantially reduce the annual operating expenses of a dental school by as much as a million dollars while providing the highest quality of specialized services to the faculty, staff and student body enabling the dental school to provide exceptional mission-related education, experiences and services at minimal cost. In addition to these institutional support services, the University of Utah School of Dentistry will establish descriptions and resources for an additional 42 staff positions by the time it achieves full operational status in its 6th year (2016/2017). These dental school staff members will be responsible for services that involve information and learning (e.g., audiovisual and computer support) technology, continuing education services, clinical management and support, library, secretarial support, security, supplies (both clinical- and research-related) management and dispersal, public relations and outreach, financial aid, registrar, student services, recruitment, development and fund raising, administrative and administrative clerical staff, research technicians and laboratory assistants.

Because the School of Dentistry will have a full complement of staff to attend to the administrative and clerical needs for the dental program it will not rely on a centralized service per se, nor will it require services provided by a separate centralized clerical/duplicating. The School of Dentistry personnel will include: a pool of 5 administrative assistants for the Dean and other associated senior administrative staff; each of the assistant/associate deans will have 1 assigned secretary. There will also be: (i) 3 Managers/Directors/Administrative Assistants to provide support to the Dean/School; (ii) 10 full-time Executive Secretaries/Assistants; (iii) ~15 clinical dental assistants, 8 clinical staff (receptionists, supply and instrument technicians), 10 research assistants and 2 full-time IT personnel.

The School of Dentistry will employ an integrated educational strategy that efficiently utilizes fulltime, part-time and adjunct faculty including clerkship mentors and residents to assist student learning and achieving of competency in all required areas. The full-time members will, for the most part, be tenure-track faculty and comprise the core of the administrative, teaching, and research responsibilities while overseeing and coordinating the programs in the administrative, basic science, clinical course areas and research programs. In addition, the full-time faculty will represent the School of Dentistry on appropriate University and School committees as required.

## **(ii) Faculty Governance**

The School of Dentistry will employ an integrated educational strategy that efficiently utilizes fulltime, part-time and adjunct faculty including clerkship mentors and residents to assist student learning and achieving of complete dental skills competency. The full-time members will, for the most part, be tenure-track faculty and comprise the core of the administrative, teaching, and research responsibilities while overseeing and coordinating the programs in the administrative, basic science, clinical course areas and research programs.

The School of Dentistry Dean has the authority and flexibility to recruit and hire additional faculty as needed for expansion or restructuring of resource allocation as programs become modified, added, or eliminated.

The University of Utah School of Dentistry will rely on a traditional and proven dental education model that when needed, takes advantage of the considerable institutional and community resources in both basic sciences and dental practice to support the mission of the School of Dentistry and help its students achieve the competencies requisite for producing outstanding dental practitioners. Specifically, the School of Dentistry will identify and compensate exceptional and well-established basic science and practicing health care educators from sister colleges/schools at the University of Utah such as the School of Medicine, College of Pharmacy, College of Nursing, College of Health, College of Social and Behavioral Science and the Graduate School of Social Work for teaching responsibilities. These University of Utah colleges and schools have well-established programs with exceptional records for health-related education that is critical for comprehensive dental training. All of these programs have expressed a willingness to serve as a resource for basic and clinical medical science instruction as needed. Such an arrangement will use faculty from these other programs as part-time employees in a cost-effective manner. This strategy often precludes the need to hire full-time faculty for all teaching in such a way that does not compromise the quality of teaching or diminish access to instructors. It also will allow dental students from the School of Dentistry to learn from the very best educators available at the University of Utah while helping them appreciate other health care strategies and their relevance to dentistry.

In addition, the School of Dentistry will recruit outstanding dental clinicians in the community who are highly regarded and well-established practitioners to contribute to the clinical training of the dental students. These practicing local clinicians will provide invaluable experience and perspective essential to proper dental training. By working with fulltime clinical professionals at School of Dentistry, these part-time clinical faculty will understand and be guided by the institutional expectations to assure the quality control necessary for students to achieve expected competencies. An additional benefit of allowing local practitioners to contribute to the School of Dentistry as part-time faculty will be that the dental community will develop a sense of partnership and contribution to dental education. As a result they will be more inclined to take advantage of the School of Dentistry for continuing education and other experiences that embellish their own practice and raise the quality of dental services available to the general public.

The School of Dentistry Dean will have the authority to include additional part-time faculty to help address the needs of the school when necessary.

Administrative faculty positions that include ~four assistant/associate deans often will be occupied by persons with either basic science or clinical credentials and skills. In such cases, these persons will spend ~10% of their time engaged in mentoring/teaching students in their area of expertise to help take advantage of their extensive expertise and experience as well as provide opportunities of student-administration interaction to be able to better assess the needs and progress of the School of



Dentistry. Some faculty and practitioners with specific valuable expertise and background will also have administrative assignments to serve as the chair of their respective clinical departments with the responsibility to organize and direct both full- and part-time faculty members and associated staff in their unit. They will be not expected to spend more than 50% of their time in this administrative role, while the other 50% will be devoted to teaching and mentoring dental students. These faculty and practitioners with dual roles will receive additional compensation commensurate with the extra responsibilities.

The institution's policy for faculty activities will be based on the original contract that defines faculty responsibilities and will include specific institutional needs that will be expected to be met by the faculty member. Each contract will be distinct and individualized according to the skill set and experience of the faculty member and the expectations of the school's administration and mutually agreed upon before employment can occur. For example, some faculty will be hired with the expectation that he/she will spend a designated percent of time engaged in research activities that include conducting quality research leading to publications in peer-reviewed scientific journals and successful competition for extramural support to further the academic mission of the dental school and make a significant contribution to dental sciences. It is likely that when possible, such faculty members will be expected to provide lectures or be the course director for basic science or clinical courses that relate to his/her field of expertise and experience. In addition, most faculty members will also be expected to contribute to the general operation of the dental school by participating as members of college committees, student counseling or mentoring, or outreach and service. If significant additional responsibilities are requested of a faculty member over those stated in the original contract, he/she will have the right to accept or reject them as he/she sees fit. As a general policy, when appropriate, the faculty member can also be compensated by a sum agreed upon by both parties. In addition, in some cases, if the new responsibilities are substantial, the percent of work distribution will be redefined and a new contract will be agreed upon and signed by both parties. In order to assure contractual agreements will be met fairly, an annual review of work responsibilities will be undertaken as part of the routine faculty evaluation process and when appropriate, adjustments will be negotiated and implemented to reflect changes. If there is disagreement between the faculty member and administration as to what are fair expectations, the faculty member will have the right to take his/her concerns to the University of Utah's Ombudsman's Office for an outside, impartial resolution of the problem.

Faculty members who substantially engage in funded research or contract projects will be governed by the rules established and administered by the University of Utah Office of Sponsored Projects. These policies apply equally to all health-related colleges/schools at the University and include rules governing salary and fringe benefits support, accounting and patent expectations, animal care and IRB requirements, indirect fees to pay for space and resource utilization, compliance with rules of personal and research conduct established and administered by the funding agency, etc.

In some cases according to pre-arrangements, some clinical faculty will practice and be compensated for clinical services using the school's clinical facilities, as long as this practice in no way compromises the principal mission of the School of Dentistry or of the University of Utah and does not detract from the faculty member's ability to fulfill his/her contractual responsibilities as a faculty member. These arrangements will be consistent with the established clinical policies for other health care practitioners at the University of Utah and compensation will reflect the established value of services rendered by the clinician and the support costs to the School of Dentistry.

The University of Utah School of Dentistry will utilize an educational model and staffing plan that preserves a faculty-to-student ratio of 1/20 for basic science laboratory, 1/8 for preclinical laboratory exercises and 1/5 ratio for clinical sessions. These ratios will be met with fulltime and part-time professors, and will be supplemented by instructors who possess the appropriate training and

experience to provide the necessary mentoring for students to develop requisite competencies and assure safety to both students and patients when applicable.

### **Ongoing Faculty Development**

The objective of our faculty development program will be to enhance teaching and technical skills in order to assure optimal student training and achievement of dental professional competencies. This program will include access to skills development through several mechanisms such as: (a) annual faculty retreat conducted at an off-campus site with over night accommodations and including continuing education programs; (b) continuing education courses that satisfy the State of Utah re-credentialing requirement of 30 hours over a two-year period; (c) attendance of annual meetings of local, state or national professional organizations; and (d) an opportunity to spend 1 day per week for scholarly pursuits such as research and scientific writings. On an annual basis the University of Utah will contribute to the faculty development process by offering courses in effective management to help improve leadership skills of faculty members. The maintenance and further development of the faculty's clinical skills will be encouraged by a contract option that allows fulltime teaching and research faculty to engage in private practice opportunities, either intramurally or extramurally. In addition, all faculty offices will have computers with Internet connection and access to list servers, e-mail, the library, no charge MedLine searches and unrestricted Internet access. Technological support of the teaching efforts of the School of Dentistry will be provided through the University's Division of Information Technology. It is noteworthy that some continuing education programs will be conducted in collaboration with other colleges and their faculty in order to optimize resources as well as create opportunities for interaction between the faculty members of different colleges/schools. In addition, there will be calibration programs for the community-based adjunct faculty held semi-annually to be conducted by the fulltime faculty and ensure consistent teaching in the central and satellite clinics.

The Dean and Assistant/Associate Deans will oversee faculty continuing education, technology skill development, research productivity and scholarship. The School of Dentistry clinical faculty will be responsible for acquiring the number of hours of continuing education required by the state of Utah as practicing dentists.

Finally, School of Dentistry will schedule mandatory in-service training for quality assurance issues, emergency preparedness, review of clinical protocols, HIV/AIDS and other communicable disease awareness and management, conflict of interest awareness, mentoring skills development, ethics and domestic violence issues. These courses will be available on either in-person or electronic basis. Full-time faculty members will also be retrained in CPR at the Health Care Provider level every two years on-site by trainers provided by the University of Utah Hospital services. As previously stated, some initial teaching skills programs will be required for faculty. Additional CE "refresher" and retraining courses will be advertised by announcements in faculty meeting, by flyers, program brochures and other forms of notification. Appropriate CE credit will be given wherever possible to both fulltime and community-based part-time faculty. The faculty will also be encouraged to attend meetings of professional organizations locally, regionally, and nationally. Funding mechanisms to help cover the expenses associated with meeting attendance and to encourage giving presentations of their scholarly works will be made available to encourage participation in professional dental and related education and biomedical meetings.

Continuing education courses are available through the Utah Dental Association as well as through other local dental association units. In addition, approved CE dental courses offered by outside organizations will be offered on a regular basis and will be advertised to faculty members. Some CE

opportunities will be made available on the Internet using the University of Utah teleconferencing resources.

Under the management of the Dean and Assistant/Associate Dean of Academic Affairs and Faculty Development, the School of Dentistry will establish a faculty development program that will be tracked by an annual performance review and goal-setting process. It will include activities that are coordinated through the departments and structured in such a manner to comply with the University of Utah Faculty Performance Guidelines and University of Utah Regulations (Policy 6-303, Rev. 19: Retention, Promotion, and Tenure) to comply with rank and tenure considerations. These sections will help define and measure faculty development for RPT considerations with the intent to establish and maintain a high level of didactic and academic experiences available to students by encouraging continual growth in areas of teaching/education, research/scholarly activity, and service. A program that features nationally recognized clinicians/speakers to present didactic and hand-on courses on contemporary dental practice advances will be implemented under the direction of the Assistant/Associate Dean of Academic Affairs and Faculty Development. The programs will utilize facilities at the dental school equipped with contemporary equipment and materials to attract the clinical faculty. Programs will also be advertised throughout the community, state, and nationally to dentists who will attend and pay course fees so these programs can be self-sustaining. Funds will be available initially to get the CE program started. The University of Utah School of Dentistry faculty will have priority access to these opportunities. Strong vendor participation for these programs will be encouraged in order to help develop opportunities for product testing by faculty and students. However, extra care will be taken to avoid conflict of interest issues or inappropriate endorsements as part of the program presentations. The use of the School of Dentistry facilities and personnel for clinical product assessment studies should lead to opportunities to contribute to dental research and skill improvement.

In addition, clinical faculty will be given the option to participate in released time to engage in either intramural or extramural practice to maintain their clinical skills.

### **Participation in the School's Decision-making Process**

Faculty at the University of Utah School of Dentistry will be ensured a form of governance that allows participation in the School's decision-making process.

The process for faculty participation and a definition of the faculty's role in the decision-making process and avenues for contributing to decisions made by the School will be defined in the bylaws. Of particular note will be the formation of a faculty government that will include the creation of several standing committees charged with the responsibility to make recommendations to the Dean regarding specific topics within their purview which contribute to the decision-making process of the School. Although these advisory committees will not be for governance purposes per se, their intent is to allow faculty participation and feedback to the School's administration. This will help influence governance in a positive manner both relative to the academia of the School as well as all aspects of School management. Examples of such committees include (\* indicates critical nature of the committee and the intent for early implementation in the development of the School of Medicine):

Academic Misconduct Committee

\*Admissions Committee

Clinical Standards of Care Committee

- \*College (Faculty) Council
- \*Curriculum Committee
- \*Executive (Faculty) Committee
- Library Committee
- \*College RPT (retention, promotion and tenure) Committee
- Research Committee
- Strategic Goals and Assessment Committee
- Student-Faculty Liaison Committee
- \*Student Advisory Committee
- Students Appeals Committee

These committees and advisory groups will be organized in such a manner to assure access by all faculty members to the decision-making process of the School. The activities of these committees will involve all aspects of academia and their membership will draw from all Dental School constituencies, including administration, faculty, students, and staff. There will be an environment and expectation for free exchange of ideas in matters concerning the faculty and their responsibilities. In addition to the standing committees listed above, all fulltime faculty members will also be members of a Faculty Council and possess voting power on policy issues related to the overall School policies. This Council will meet semi-annually and will be conducted by the Dean. He/She will prepare and distribute an agenda for discussion, however, all members of the Council will be encouraged to submit suggestions for agenda items that are appropriate for full School discussion. One-third of the Faculty Council members shall constitute a quorum and the vote of the majority of the members present at any quorum shall constitute a formal action for the Faculty Council. Minutes from the Faculty Council meetings will be distributed for membership evaluation and approval. An important part of the Council agenda will be reports from the principal dental school committees listed above. In summary, these committees combined with the Faculty Council, will afford all faculty members the opportunity to actively participate and influence the decision-making process of the dental school and will make the School of Dentistry in full compliance with this Standard.

### **Performance Evaluation and RPT**

All faculty members of University of Utah School of Dentistry (including the administrators) will be evaluated for performance in the areas of teaching, patient care, scholarship/research, and service according to University of Utah Regulations Guidelines. This process will involve input from both the School of Dentistry and the University of Utah and is described in detail in the University of Utah Regulations under Policy 6-303, Rev. 19: Retention, Promotion, and Tenure (RPT) and the supplemental RPT document accompanying this application for the School of Dentistry. The RPT process will be ongoing for tenure track faculty members and consist of either informal (years 1, 2 and 4) or formal (years 3, 5 and perhaps 6) reviews. Each review will be conducted by a committee consisting of those faculty members of equal academic rank or greater. The evaluation will include a

thorough review of the teaching, scholarship/research/clinical achievements, and service of the candidates. Faculty members in the tenure track will be generally expected to achieve good or excellent progress in three of these areas of responsibility. The files reviewed will consist of information provided by either the candidate or outside reviewers (for formal reviews) invited to comment on the candidate's qualifications and typically include solicited internal and external reviews of the candidate's qualifications for advancement. Material for consideration will include statements from the candidate, teaching and scholarly/clinical achievement records, lists of committee and service involvement, peer and student teaching and mentoring evaluations and administrative achievements if appropriate (e.g., Dean, Assistant/Associate Deans, Department Chairs). This and other relevant records will be discussed in the annual RPT (e.g., DRPTAC and CRPTAC) meetings, at the end of which a vote will be taken regarding the recommendation for retention, advancement and/or retention and if appropriate, tenure. One of the committee members will be appointed RPT committee chair and will preside in the committee meeting and its deliberation. Another member will be appointed as the secretary and will take thorough notes of the discussion and final decision. The notes and decision will be used by the committee chair to prepare a formal summary of the discussion and findings of the respective RPT meeting. The summary will be approved by the committee members and sent to the School Dean and the candidate. The letter will include recognition of accomplishments as well as provide suggestions or requests for the candidate to help him/her continue with career advancement and retention. This basic RPT process will also apply to those who are full-time tenured professors and will be repeated at least every 5 years to assure continual progress and development for even the most senior and experienced of the School faculty.

A similar annual review process, with some modifications, will also be used for part-time (adjunctive) or fulltime non-tenured (research) faculty. The members of this review committee will also be the fulltime tenure-track faculty. The review will evaluate teaching, clinical, research/scholarly, and/or service contributions, but in contrast to the RPT process for tenure track faculty, this review will not require excellence or even participation in all areas; however, it will require high-quality performance and development in one or more of these areas based on the contractual arrangement with the candidate. Thus, if a community dentist were hired to provide clinical instruction part time, his/her evaluation would principally consider competency in clinical teaching with less concern about performance in research or service. The evaluation committee will be charged with making yearly recommendations for retention of all faculty who are either part-time or non-tenure track full time.

Written recommendations from both types of faculty evaluation committees will be submitted to the Dean for consideration. Based on the deliberations from the review committees and other information felt to be relevant, the Dean will prepare a letter of recommendation that will be submitted to the Senior Vice President for Health Sciences. A copy of the Dean's letter will be provided for the candidate, and as soon as possible, the Dean will meet with the candidate to discuss the recommendations and if necessary to develop a strategy to address deficiencies. At any stage the candidate will have the right to appeal or question the recommendations when he/she becomes aware of the committee deliberations and decisions. A formal process for such appeal will be described in detail in the Policy 6-303, Rev. 19: Retention, Promotion, and Tenure document.

The Dean will be evaluated on an annual basis by the Senior Vice President for Health Sciences and by a formal survey conducted every three years. Alumni, students, faculty, staff and members of the University community are invited to participate in this latter exercise. The results will be discussed with the Dean by the Senior Vice President for Health Sciences. Assistant/Associate Deans and department leaders will be annually evaluated by the Dean in a similar manner. These evaluations will consist of assessments of both academic/clinical accomplishments but will include determination of the progress and accomplishments of the dental school and departments themselves. These evaluations will be used to determine if retention of administrative responsibilities should be

recommended. As mentioned above, the evaluation of the Dean will be done in addition to the typical RPT process described above for other tenure-track dental school faculty.

The process for achieving promotion and conferring tenure for the University of Utah School of Dentistry faculty members in tenure-track positions will be governed by University of Utah statutes and is clearly described in the University of Utah Regulations, Policy 6-303, Rev. 19: Retention, Promotion, and Tenure. As such, it becomes the contractual binding agreement between the University of Utah and the faculty member. In general, the philosophy of the School of Dentistry regarding consideration for tenure or advancement in rank will be to assess the contributions of the individual and determine if these meet institutional expectations. If so, the individual will be retained and advanced in rank and/or given tenure. The method of communicating the details of this process and the University of Utah School of Dentistry expectations for individual faculty members will be through: (a) the University of Utah Handbook for Faculty which presents all relevant information regarding the rank and tenure process for faculty members; (b) an annual open forum conducted by its Rank and Tenure Committee to explain the RPT process and answer faculty questions; (c) an annual seminar that will be conducted by the Assistant/Associate Dean of Academic Affairs and Faculty Development for all tenure-track faculty who are contemplating a request for advancement in rank. The details of the process will be reviewed and reasonable interpretations of expectations will be made as they apply to the School of Dentistry environment; (d) the Assistant/Associate Deans and Department Chairs will work with individual faculty members to help prepare them for RPT development and provide feedback as to the progress of tenure-track faculty members in this regard.

The Assistant/Associate Dean of Academic Affairs and Faculty Development will have responsibility for coordinating the RPT process in the School of Dentistry. The process will begin with a letter that will be sent from the Assistant/Associate Dean's office to all tenure-track faculty members who are not yet tenured and who have reached their 6th year of employment. This letter will advise the faculty member that the time has arrived that they need to be considered for tenure. A separate letter will be sent to the other tenure-track faculty requesting applications for promotion from those eligible and for tenure from those who wish to be considered before their sixth year. A packet of information will be given to candidates explaining guidelines governing the procedures, the documentations required, and relevant deadlines. Additionally, information will be provided to assist them in assembling their files. The Assistant/Associate Dean of Academic Affairs and Faculty Development will be responsible for collecting the required documentation and for ensuring that the files are complete and assembled correctly. In addition, this Assistant/Associate Dean will request internal and external letters of recommendation or evaluation as required. The review process will begin after October 31st each year, which will be the deadline for completion of files and their submission to the Dean's office. Each college or school within the University of Utah administers its own RPT process according to University guidelines through its own peer-review RPT committee. As explained above, the RPT committee for the School of Dentistry will include all tenure-track faculty members of equal or higher rank than the individual being reviewed. The Chair and Secretary will be elected by other members of the committee and they will have the responsibility of conducting and recording the events and outcomes of the meeting. The Chair will prepare duplicate letters stating the recommendations and conclusions of the Committee to submit to the Dean and the candidate. A copy of the letter will also be included in the candidate's permanent file. The Dean will prepare a letter of recommendation that will be forwarded to the Senior Vice President for the Health Sciences who will make the final decision. The faculty member can challenge the recommendations or appeal the final decision through the University of Utah Promotion and Tenure Advisory Committee according to the guidelines in the University of Utah Regulation, Policy 6-303, Rev. 19.

***(iii) Facilities (building, classrooms, laboratories, clinics etc.)***

The University of Utah School of Dentistry will be located in a brand new and completely paid-for building scheduled for completion in 2014. It will join several other new buildings at the University of Utah Health Sciences campus including the University of Utah Orthopaedic Center, College of Pharmacy Research Building, Huntsman Cancer Institute and Hospital, University of Utah Hospital, and the Emma Eccles Jones Medical Research Building/Pathology Department. We will be part of a modern, state-of-the-art, Health Sciences campus.

The building will be dedicated to dentistry and dental education. We will be the only scheduled occupants. It will be a multi-level building with accompanying parking for patients, occupants and visitors. The building will include offices for administration, faculty and staff. Lecture rooms, conference rooms, student locker rooms, multiple built-to-order research laboratories, pre-clinical and simulation laboratories and state-of-the-art patient clinic treatment areas with all the support areas for clinical activity will be contained in this building. It will be built according to State and Federal regulations and include disabled/handicapped accessibility to all functions of the building. The preclinical/simulation laboratory will be built to accommodate 50 students and will be designed and built for future expansion as needed. The patient treatment clinics will have over 100 treatment operatories, equipped with new diagnostic units.

The nearby Health Sciences Library houses a fine collection of dental periodicals as well as a wide array of dental related textbooks. The new Histology Lab/Teaching Center is located in the Health Sciences Education Building and the Cadaver Lab is nearby in Research Park.

A Facilities Planning Committee was formed, comprising of dentists from the Utah Dental Association (UDA), University of Utah Dental Education faculty and non-dental school faculty members from the University of Utah, the Assistant Vice-President for Health Sciences Capital Programs and Space Management at the University of Utah, members of the architect firm that was hired, and a consultant from the Western University School of Dentistry. Some members of the committee visited several dental schools in the country to provide input to the committee in design and space allocation. The final report was submitted to the Sr. Vice President for Health Sciences for his approval. Funds for the building and all the equipment, including dental equipment have been secured and are in University accounts set aside for the dental school. Permission has been granted to proceed with programming and architect drawings.

Plans for the school include using two University of Utah community dental clinics. The first clinic is located in the University Hospital Greenwood Clinic facilities and has been completed with twelve individual dental operatories and all the support facilities, including sterilization, support laboratory, six intraoral radiograph units, digital panoramic X-ray unit, etc. In two years that facility will be expanded by four more operatories, to make a total of sixteen. The second additional University Community Health Clinic will be established in another University community setting and will have twelve to sixteen dental operatories. The Health Sciences Assistant Vice-President for Capital Programs and Space Management, along with the assigned members of the Dental Faculty will oversee building maintenance, update and/or replace equipment and review space requirements in the School of Dentistry building. Funds have been allocated in the annual budget for this purpose.

If necessary, the first entering class of 2013-2014, will utilize the existing facilities currently being used by the dental students in the Regional Dental Education Program and residents in the General Practice Residency. The facilities are/and will be in the Health Sciences Education Building and include adequate size lecture rooms, histology laboratory/teaching area, faculty offices and pre-clinical laboratory/simulation areas. Also existing for student use are study areas, lockers, common areas, and the attached Health Sciences Medical library. Additional faculty offices and the 2nd pre-

clinical laboratory/simulation area will be in the adjacent building (School of Medicine). This area already exists and is under the dental program's jurisdiction.

The Spencer S. Eccles Health Sciences Library is located in a separate building immediately north of the Health Sciences Education Building. It accommodates patrons at individual carrels and study tables on three floors. The Public Services Department, located on the main floor, provides assistance in the use of the library, the online catalog, online database services, including PubMed and Internet resources. Computer workstations, laptops and other mobile devices, laser printers, scanners, copiers and an audience response systems (ARS) are available for use. Wireless access is available throughout the building.

In conclusion, sufficient facilities and resources exist to accommodate the students in their education and curriculum until the new dental school building is completed.

***(iv) Student body and development***

The student body of the School of Dentistry will consist of both pre- and post-doctoral students. The pre-doctoral students will be working for a D.D.S. degree upon graduation that qualifies them to obtain a license to practice general dentistry or to matriculate for additional post-doctoral training in either clinical or research-related disciplines. The post-doctoral students improve their skills in a General Dentistry Residency Program or they will work for Master degrees in clinical specialties such as pedodontics, oral pathology or periodontics. In addition, Ph.D. or combined Ph.D./D.D.S. programs will also be available for those students who want advanced research/academic training. The following is a table that summarizes the total and distribution of the students during the development of the School of Dentistry:

	<i>Year 2013-14</i>	<i>2014-2015</i>	<i>2015-2016</i>	<i>2016-2017</i>	<i>2017-2018</i>
<b>Pre-doctoral Students</b> <i>(entering)</i>					
<b>Year 1</b>	20	20	20	20	20
<i>(continuing)</i>					
<b>Year 2</b>		20	20	20	20
<b>Year 3</b>			20	20	20
<b>Year 4</b>				20	20
<b>Total Pre-doc stud.</b>	20	40	60	80	80
<b>Post-doc (Gen. Dent. Residents)</b>					
<b>Year 1</b>	10	10	10	10	10
<b>Year 2</b>			2	2	2
<b>Post.-doc Masters (Ped., Peri., Oral Path)</b>					
<b>Year 1</b>			2	4	4
<b>Year 2</b>				2	4
<b>Year 3</b>					2
<b>Total Post-doc stud.</b>	10	10	14	18	22



<b>Ph.D.</b>					
<b>Year 1</b>				2	2
<b>Year 2</b>					2
<b>Year 3</b>					
<b>TOTAL STUDENTS</b>	30	50	74	100	106

### **Application for pre-doctoral students**

The School of Dentistry will participate in the American Association of Dental Schools Application Service (AADSAS). All new pre-doctoral applicants and re-applicants seeking admission to the School of Dentistry will apply through this national dental application services coordinating agency.

Application forms will be available between June 1 and March 1 preceding the year in which the applicant desires to enter. The AADSAS application must be received by AADSAS by February 1, in order to be cleared and processed by the deadline. Applications will be evaluated by the Admissions Committee and first round acceptances will be nationally offered beginning on December 1 of the application year.

To meet the legal requirements of state licensing boards and to gain the necessary background for the study of dentistry, the following minimum educational requirements for admission to the School of Dentistry will be met:

College credits covering a minimum of two years of study in an accredited college of arts and sciences. While a minimum of 64 semester hours (96 quarter hours) from an accredited liberal arts college is required, most accepted candidates will have completed 120 semester hours (180 quarter hours). The minimum of 64 semester hours (96 quarter hours) must be obtained exclusive of credit in military science, physical education, and nonacademic courses. The 64 semester hours must include the following specific subjects and credit:

- Biology ..... 6 semester hours
- Chemistry, inorganic ..... 8 semester hours
- Chemistry, organic ..... 6 semester hours
- English ..... 6 semester hours
- Physics ..... 6 semester hours

The required hours and subjects must be completed by the end of the spring term preceding the fall in which the applicant wishes to enter the School of Dentistry. The following electives are suggested for the remainder of the required sixty-four semester hours: Modern languages, mathematics, history, social science, philosophy, speech, economics, comparative anatomy, psychology and computer utilization. The majority of applicants enrolling in the School of Dentistry will have completed a Bachelor's degree program.

Weighting of admission criteria will reflect emphasis on academic performance. This includes science GPA, non-science GPA, total GPA and Dental Admission Test (DAT) scores. The interview evaluation will also be a key factor contributing to the applicant's potential for acceptance. All applicants will be required to take the Dental Admission Test (DAT) prepared and administered by

the Council on Dental Education of the American Dental Association in cooperation with the American Dental Education Association.

Each applicant must have three recommendation letters, two by instructors in science and one by an instructor in a non-science department, testifying to character and apparent fitness for the profession of dentistry. If an applicant's college has a recommending committee, its recommendation will be preferred to the three individual recommendations.

All applicants will be considered for admission on the basis of their potential to successfully complete the pre-doctoral program without compromise of the established standards of academic and clinical performance expected of all graduates of the School of Dentistry and their potential to best serve the needs of society.

Selection of all students will be based upon both objective and subjective evaluation. Objective criteria include GPA, DAT scores, and science grades. Applicants with higher scores and satisfactory subjective evaluation will be given primary consideration. However, applicants with lesser objective qualifications will be considered on the basis of more subjective factors, such as: 1) evidence of predisposition to provide dental health care in underserved areas; 2) evidence of participation in worthwhile community activities; 3) recommendation from teachers, known alumni, and other members of the profession; 4) quality of pre-professional educational program; and 5) evidence of good moral character, motivation, and emotional and intellectual maturity.

All applicants will be evaluated individually by the Committee on Admissions to determine their potential for successfully completing the program. This will be based, in part, on each applicant's credentials. On this basis, applicants will be categorized as being acceptable (qualified), alternate (marginally qualified), and rejected (not qualified). It will require a majority vote of the members of the Committee to be considered as an acceptable or qualified applicant. Applicants who receive at least two votes will be reviewed again and may receive counseling from the Director of Admissions regarding things they could do to become a more competitive candidate.

Those applicants that the Committee evaluates as being acceptable will then be judged for enrollment following the more subjective criteria. Preference will be given to residents of the State of Utah. Residents of neighboring states without dental schools will be given preference for non-resident positions. We intend to extend offers of acceptance to ~30 applicants during the initial admission cycle. Additional acceptances will be extended as needed to fill the class of 30 students per year. Based on experience with the Regional Dental Program, it is anticipated the application/acceptance rate will exceed 10/1.

The admissions process will be a dynamic one that features a continual review and revision of criteria, policies and procedures in order to be able to better respond to external factors contained within the applicant pool. Probably the most direct avenue for faculty members to participate in the development and modification of admission criteria and procedures will be to serve on the Committee for Admissions. Except for the Director of Admissions, all faculty committee appointments will be for three-year terms with no restrictions concerning rank or tenure status. As they serve their terms, faculty will gain both an appreciation for an opportunity to modify admissions criteria and procedures as a result of an annual assessment by the Committee. At the beginning of each admission cycle, the Admission Committee will review the performance of the previous year's first and second year classes and compare this to their admission credentials. A report will be prepared by the Director of Admissions who will correlate the performance of students who had the lowest entering grade point average (GPA) and DAT scores, with their performance during the first two years in dental school. That report will also examine the entering GPA and DAT scores of students who ranked in the top 10 of the freshman and sophomore classes. Within the context of this annual

analysis, the Committee will also review current trends in the applicant pool and admission practices at peer institutions.

The administration and faculty will have opportunities to participate in the modification of admission criteria and procedures in a variety of other ways. All administrators will receive an incoming class report that will summarize the admission credentials of each enrolled student. A report on the incoming class will be presented to the faculty and administration each October during an Annual Faculty Retreat, at which time entering credentials will be compared to past University of Utah School of Dentistry classes and national averages from previous years. It is also planned that a Student Performance Committee will present the entrance credentials for students experiencing academic difficulties; particularly for those situations encountered during the freshman and sophomore years. In the above situations, if troubling patterns are recognized, discussion of admission criteria and procedures will be initiated.

Multiple resources will be available to applicants containing information regarding the criteria and procedures for admission and the program goals. These include the American Dental Education Association's *Official Guide to Dental Schools*, the University of Utah School of Dentistry's website containing current program information and related links, the School of Dentistry admissions office, and other recruitment materials and presentations provided by recruitment site visits presented annually to interested students at most of the colleges and universities in Utah.

A program brochure representing the information found in the ADEA *Official Guide* will also be produced and available for distribution and for downloading from the School of Dentistry website.

Content of the University of Utah School of Dentistry's vision and mission statements will be contained in the materials available to applicants. Applicants will be invited to join in the processes leading to the fulfillment of the ideals expressed in these documents.

### **Pre-doctoral Student Monitoring**

All enrolled students will be assigned an academic advisor. Course directors will inform the Assistant/Associate Dean for Student Affairs and the Assistant/Associate Dean for Academic Affairs of the results of early tests. Students experiencing trouble will be sought out, if they have not already come for help, and a remediation strategy will be developed. Most often, this will involve the assignment of a tutor but, because problems can arise whose roots are outside the academic arena, University resources such as the Counseling Center, Office of Financial Aid, etc. may also be employed. Tutors will usually be third or fourth year students who have been identified by course directors as having demonstrated an excellent knowledge base and sufficient interpersonal skills to be helpful in assisting students who are experiencing difficulties. They will be hired and paid through the Office of Academic Affairs. No additional financial responsibility will be placed on the student in need of academic assistance. Course directors will also meet individually with students who are struggling to provide remediation and to coordinate the activity of the tutor. The Student Performance Committee will meet quarterly to address issues of students who are experiencing difficulties. Both the Assistant/Associate Deans for Student Affairs and Academic Affairs will participate on the Student Performance Committee.

### **Student Diversity**

It is the goal of the School of Dentistry to maintain a diverse student body. We will participate in current programs of the University of Utah Health Sciences designed to promote diversity in the student population. Some of these include, but are not limited to, Area Health Education Centers (AHEC), K-12 Health Sciences, and Latino Medical Student Association (LMSA). These are under

the direction of the University of Utah Health Sciences Associate Vice President for Inclusion, currently being recruited.

The School of Dentistry will also be compliant with the qualifications standards set by the University of Utah Health Sciences relative to Section 504 of the 1973 Vocational Rehabilitation Act, as amended, and the Americans with Disabilities Act of 1990, and seek to provide opportunities for qualified individuals with disabilities.

### **Pre-doctoral Student Advisement**

Several avenues will exist for the dissemination of information to students regarding their academic and behavioral responsibilities. Some of these will be institutional in nature and more global in scope. Others will be the responsibility of Course Directors. An example of the institution providing generalized information in this regard will occur as a part of the registration process at the beginning of each academic year. The Assistant/Associate Dean for Academic Affairs will distribute a packet of information to each student that is year-specific regarding student academic and behavioral expectations as well as all School policies and practices that govern such activity during that academic year.

The student handbook and the bulletin of the University of Utah School of Dentistry will be made available to each incoming dental student and will contain an overview of the curriculum, a curriculum flow chart, a summary of the educational goals of the curriculum, and the general policies of the School of Dentistry.

At the beginning of each lecture, laboratory, and clinical course, students will be given written information concerning its goals and requirements, nature of its content and occurrence of any competency assessments and the methods of evaluation used. The responsibility to provide this information will be that of the Course Directors and will be accomplished by means of course syllabi. Syllabi content will follow standardized guidelines established by the Assistant/Associate Dean for Academic Affairs. The format selected is left to the discretion of each course director; however, the content must include the following general information: outcomes; learning resources/textbooks; evaluation methods; policies and procedures; and instructional sessions/calendar. Expected School of Dentistry student competencies will also be referenced to ensure that students recognize the linkages between course content and required competency skill levels.

Information and policies relative to the treatment of patients will be provided to the students following the successful completion of the related preclinical curriculum and prior to entry into the clinic. The Assistant/Associate Dean for Clinical Services/Director of Clinics will have the responsibility of creating a Clinical Procedures Manual and distributing copies of this publication to each student during a Clinic Orientation Session. All students will be required to attend the Clinic Orientation Session in order to receive clinic privileges. The manual will include standardized guidelines as above plus an outline of expected clinic competencies, description of clinic patient flow patterns, procedures, fees, evaluation forms and standards for each procedure. An outline of expected progress for clinical outcomes will be organized reflecting standards of completion during third and fourth years of clinical performance.

Each student will be informed of his/her progress throughout their course of study at the University of Utah School of Dentistry. This will be a two-tiered process. At its most basic level, all didactic, laboratory and clinical course faculty will provide feedback regarding student performance following examinations, the completion of specific projects, and during the process of patient care. This information will be collected and organized by the Office of the Associate Dean of Student Affairs. Many clinical departments will also consolidate the results of patient care experiences and provide

students with monthly progress reports. At the second level, each course director will be required to submit performance information for the appropriate cohort of students to the Office of the Associate Dean of Student Affairs on an academic semester basis. A summary of this information will then be provided to each student from the Office of the Associate Dean of Student Affairs. If it involves a final or permanent grade, the summary will be provided by the University Registrar. If it is an interim grade, the information will be disseminated by the Office of the Associate Dean of Student Affairs.

The School will review the performance of each student on an individual-by-individual basis and make recommendations to the Dean regarding either continued participation in the curriculum or action to be taken when a student's performance is below minimum standards. Students' academic and clinical performances will be reviewed by the Office of the Dean of Student Affairs and the Curriculum Committee. This is a pro-active process to review the academic performance of all students, with evaluating policies that affect office and committee functions, and with making recommendations to the Dean regarding student continuance in the program and academic policy modification as warranted. A review of student academic performance will occur at least four times a year. These meetings will be scheduled shortly after the receipt of all academic information as described above by the Office of the Associate Dean of Student Affairs. Students' behavioral performance will be reviewed by the Office of the Associate Dean of Student Affairs and the Curriculum Committee. This will occur as needed on a case-by-case basis.

When the Office of the Associate Dean of Student Affairs determines that a student's performance is below minimal standards it will advise the Curriculum Committee and will have various options it can exercise in terms of making a recommendation to the Associate Dean of Student Affairs: (i) placement on probation; (ii) continuation of current academic status; (iii) repetition of an academic year; (iv) dismissal, (v) or any other recommendation deemed to be appropriate. This information will be a part of the packet that is presented to each student at the beginning of the academic year. It will be also included in the bulletin of the University of Utah School of Dentistry. It should be noted that the primary objective in making any recommendation is to help the student. In situations where the academic performance is considerably below the minimum standard, a determination must be made as to whether the student is capable of continuing in the curriculum or not, and if so, under what conditions. Cases such as these may call for the repeat of an academic year or termination of enrollment. When the performance is below the minimal standard but appears to be correctable, recommendations will be made that are geared toward remediation and resolution of the academic difficulty. We do not expect them to occur frequently if care is taken to matriculate highly qualified students and to monitor students' progress carefully.

The School of Dentistry will have several approaches designed to assist students in academic difficulty. One strategy will be to have the student and the faculty member meet for tutorial/remedial sessions designed to address the noted academic shortcoming. Another will be to enroll the student in the dental school's tutorial assistance program. At the beginning of each academic year, the Office of the Associate Dean of Student Affairs will solicit from among third- and fourth-year students (once these classes are in place), people who have demonstrated academic accomplishment and who would be willing to serve as paid tutors to those who are in need. Prior to that time, outstanding earlier students will be recruited. Areas of "expertise" will be identified based on past academic performance and the tutor will be paired with a student on this basis. Thus, a tutor who has excelled in pharmacology will be assigned to a student who is experiencing difficulty in that subject. Tutors will be paid by the School of Dentistry and the student receiving this service will incur no additional financial obligation. A third strategy will be to have the student who is experiencing academic difficulties be evaluated by the University Career Counseling Center to determine whether any emotional or physical conditions exist that may account for the observed student performance. For example, if a learning disorder is diagnosed and the Counseling Center recommends the

implementation of specific testing conditions, appropriate course directors will be notified and changes made.

When the Curriculum Committee determines that a student's behavior has not met minimal expectations, it will work with the Office of the Associate Dean of Student Affairs to recommend reprimand; repetition of an examination or an assignment under a different format; reduction in grade for an examination or an assignment; failing grade for an examination or an assignment; probation; suspension or expulsion from a course; incomplete grade for a course and the requirement that the course be repeated; removal from or denial of office in student organizations; request for withdrawal from School or suspension or expulsion from school; and/or suspension of clinical privileges. Under extreme conditions, the Student Performance and Student Appeals Committee may also become involved to assure appropriate responses without violating the student's rights. This will be done with considerable care to assure there is no compromise of confidential issues.

Whether the problem stems from an academic or clinical issue or whether it is behaviorally oriented, all adjudications against the student will carry with them the right of due process. The Curriculum Committee will oversee this process.

### **Pre-doctoral Student Expectations**

The School of Dentistry will have four years of academic instruction devoted to teaching courses in the biological, clinical and behavioral sciences domains. It should be noted that the first year will be composed of 1116 clock hours of instruction of which 524 hours will be allocated for lectures and seminars, 543 hours will be devoted to laboratory instruction, and 49 hours will be spent in field experiences or clinics. The second year will have its 1362 clock hours of instruction divided so that 490 hours will be spent in lectures or seminars, 820 hours will be allocated for laboratory courses, and 52 hours will be devoted to field experiences or clinical activities. The third curricular year will require 1475 clock hours of instruction with 425 hours being dedicated to lecture or seminar activity, 2 hours being devoted to laboratory activity, and 1048 hours spent in field experiences and clinical pursuits. The fourth year will be comprised of 1377 hours of which 236 hours will be structured for lecture and seminar courses, 28 hours will be devoted to laboratory instruction, and 1113 hours will be spent engaging in field experiences and clinical studies.

The stated goals of the University of Utah School of Dentistry will include the preparation of graduates who possess the knowledge, skills and values to begin the independent practice of general dentistry. This is the definition of competence. Our mission will be to educate and train excellent, compassionate, and ethical dentists to partner with other healthcare providers in order to serve our community and the world around us and to further our understanding and the therapeutic management of oral structures and function. Clearly, this objective in our Mission Statement fulfills the intent of this Standard.

The achievement of competence will be measured primarily through competency examinations and, to a lesser degree, through faculty ratings. The advancement toward proficiency will be achieved by the successful completion of all academic obligations (didactic and clinical) required by the institution. All graduates will have demonstrated the achievement of competence in all areas set forth by the School of Dentistry as measured by performance on competency examinations and faculty observation. The attainment of these competencies will be a condition for graduation. At the same time, it is anticipated that varying degrees of progress will be made toward the achievement of proficiency, depending upon the level and success of participation in those curricular activities designed to improve knowledge, skills, and values beyond competence.

The overall Mission Statement Objectives help to summarize the expectations of the School of Dentistry in order to assure that students achieve expectations. These are:

- Instill a Strong Code of Ethics and Community Service
- Support and Maintain Academic Excellence
- Provide Quality Dental Care
- Promote Research to Enhance Knowledge and Advance Oral Health
- Promote the Development of Faculty, Staff and Institutional Operations

The University of Utah School of Dentistry will use what has been described as a "lock-step" type of curriculum. All students in a given academic year will take all didactic and laboratory courses and associated examinations, including competency assessments, at the same time. The timing of these evaluations will be clearly presented in the syllabus of each appropriate course so all students will be aware of the scheduling for all of these events. All clinical courses will be conducted concurrently, however, the degree of participation in each at any given point in time may vary due to differences in patient treatment needs and the clinical progression of the students. The offering of clinical competency examinations will be split between allowing the student to challenge when he/she believes he/she is ready or scheduling the assessment to occur as a block event for either a large segment of the class or the entire class. The time required to conduct a particular discipline's assessment and the availability of resources will be the primary determining factors that dictate which format will be used.

The criterion for the determination of the successful achievement of competence in a particular area will be the passage of all competency examinations. Examination performance data will be gathered from examination administrators by the Office of the Associate Dean of Student Affairs as a part of the process that collects coursework grades. Prior to graduation, the Office of the Associate Dean Student Affairs will conduct a "sign out" process whereby prospective graduates must receive signatures from key personnel indicating that all academic, clinical, administrative, and financial responsibilities have been met. Among these will be the successful completion of all critical examinations and the signature of the Associate Dean Student Affairs will be required as proof of that fact. This demonstrates that the University of Utah School of Dentistry will employ student evaluation methods that measure its defined competencies. It will do so with a process that uses a variety of assessments from a broad base of constituencies, it will be ongoing, and will be closely monitored by key administrative personnel for successful completion.

*Curriculum Management* The integration of biomedical, behavioral and clinical science disciplines will be coordinated and monitored centrally by the Curriculum Committee and by the Associate Dean of Student Affairs. As a part of the Assessment Program, on an every-other-year basis, a Curriculum Content Survey will be administered by the Curriculum Committee requesting that all directors of didactic and laboratory courses indicate the amount of time spent teaching various subtopics included within major topic items. These subjects will parallel those included in the American Dental Association's Curriculum Clock Hour Survey. The results of this Content Survey will be assessed by the Curriculum Committee with respect to integration of teaching efforts as well as for excessive overlap or redundancy and will be maintained on file in the Office of the Associate Dean of Student Affairs.

The primary responsibility for curriculum management will rest with the Curriculum Committee. This plan will be initiated annually, be ongoing, and include input from faculty, students, administration, and other appropriate sources. It will also fulfill three principal objectives: curriculum organization, to include an evaluation of format, content, and sequencing; curriculum implementation, to include scheduling of classes and examinations; and curriculum evaluation, to include an assessment of course objectives, content repetition, and inclusion of new and emerging information. Much of this will be done as a part of the School's standard yearly assessment. Appraisal of this activity will serve both as a measure of treatment outcomes as well as a measure of educational or curricular outcomes.

The Curriculum Committee will conduct an ongoing review and evaluation process that includes input from many sources. Members of this Committee will include the Associate Dean for Clinical Services and the Associate Dean of Academic Affairs. The balance of the faculty members shall be composed of at least one junior faculty member who is of no higher rank than Assistant Professor, at least one senior faculty member who is of the Professor rank, at least one basic science faculty member, and at least two clinical science faculty members. Additionally, there shall be four student members so that each of the four classes has one representative. Another source of input will come from the data used during the curriculum assessment process. Once again, many constituencies will be represented, including faculty, students, alumni, administration and external testing agencies. Examples of these and their respective sources of information will be: academic data of entering students (administration); National Board performance (external testing agency); licensure examination performance (external testing agency); senior exit survey (students); alumni survey (alumni); post-graduate survey (external program directors); competency examination performance (faculty); classroom, laboratory and clinical performance (faculty); clinical treatment failure rate (administration); treatment rendered and records audits (administration); and infection control compliance (faculty). As is obvious from the foregoing, faculty, students, administrators and other appropriate sources will be well represented in the curriculum review and evaluation process. This representation will occur both as a source of information as well as an opportunity to actively participate in the process as a Curriculum Committee member.

In conclusion, University of Utah School of Dentistry will have a curriculum management plan that ensures an ongoing curriculum review and employs a process that includes input from faculty, students, administration, and several external sources. The curriculum review process will be tied to the assessment activities of the School, especially with respect to student performance, course content, student evaluation of instruction, and the attainment of School of Dentistry competencies. Mechanisms will be in place to identify and eliminate unwarranted repetition as well as to add new and emerging information. Finally, course organization will be monitored annually and will be altered when trends associated with appropriate Strategic Goals metrics warrant such activity or when members of a department can demonstrate that such a change would be beneficial.

*Patient Pool* The School of Dentistry will ensure the availability of adequate patient experiences to afford all students the opportunity to achieve stated competencies within a reasonable time. This will be demonstrated by clinical performance standards, student clinical activity, clinical patient visit data, competency examination pass rates, and graduation data. In order to better understand and appreciate this evidence, a brief explanation of the School's developing clinical protocol is presented below.

Although students will have exposure to patient care during both their first and second years of study, the primary emphasis on clinical activity will be concentrated during the third and fourth year curricula. Both junior and senior students will treat their adult patients in a comprehensive fashion under a plan of treatment that will be formulated by the Department of General Dentistry. This



department will be responsible for supervising patient care experiences involving operative dentistry, dental hygiene, oral diagnosis, radiology, and uncomplicated fixed and removable prosthodontics. Complex cases, usually involving prosthodontic treatment, will be appointed for a special case presentation to the affected disciplines prior to the formulation of a finalized treatment plan. All clinical disciplines will have clinical performance guidelines which include minimal numbers of experiences designed to provide the student with the requisite knowledge and skill to successfully complete the various competency examinations and to be able to begin the unsupervised practice of general dentistry.

The clinical curriculum within the School of Dentistry also will establish a mechanism to address the potential concern that some students may focus only on attaining the minimal guidelines and passing competency examinations and not meeting the Mission Statement objective of progressing toward proficiency as well as jeopardizing the comprehensive treatment needs of their patients. The end result of such a system will be to minimize focus on student-based requirements, but rather provide patient treatment in a comprehensive fashion, and help achieve the Mission Statement objective of moving beyond competence toward proficiency.

Based on our experience with our two General Practice Dental Residency Clinics, a large number of untreated Medicaid-eligible patients in the area, and a large population of untreated, underinsured and uninsured patients in the area, we expect that the School of Dentistry will have more than adequate patients and procedures for our students to develop clinical skill. This coupled with lower-than-average fees will assure sufficient patient base for the proposed school. The School will draw from over 1 million people in the Salt Lake Valley. Efforts to attract patients to the School's clinics will be directed by the Office of the Associate Dean for Clinical Services. There will be essentially three avenues from which patients will come for comprehensive care: a new patient that telephones or presents, an acute care patient who wishes to receive comprehensive care in the future, and a patient recruited by a student. All three will initially be given an introductory packet with instructions to fill out required forms and to return them to the School. The new patient and the acute-care patient (after the emergency is addressed) will be appointed to the Oral Diagnosis section of the General Dentistry Clinic for the initial examination and determination of case acceptability. If the case is acceptable, the patient will be assigned to the examining student who is on a block rotation for final treatment planning and comprehensive care. The patient recruited by a student will be immediately assigned to that student and appointed in the General Dentistry Clinic for initial examination and determination of case acceptability. If acceptable, a final treatment plan will be developed and comprehensive care undertaken. Patients whose care is determined to be too complex for management by predoctoral dental students will have the right to appeal that decision to the Associate Dean of Clinical Services. If the appeal is granted, they will be plugged back into the system at the Oral Diagnosis Block level. If the appeal is denied, they will be instructed to seek care elsewhere and several suggestions on how to do so will be provided.

Based on performance of other dental schools drawing from a similar population base, it is expected that the patient pool at the University of Utah School of Dentistry will be more than adequate to support its clinical mission and to provide students with requisite experiences to achieve the stated clinical competencies. In order for this to occur, however, these experiences will be distributed properly across all disciplines so that every student has the opportunity to attain all of the clinical competencies.

The School of Dentistry will pay special attention to the management of patients with special needs. These are people whose medical, physical, or social situations make it necessary to modify normal treatment routines in order to provide care. These individuals include, but are not limited to, people with developmental disabilities, complex medical problems, and significant physical limitations. Several didactic courses in the curriculum will provide instruction regarding the management of these

patients, including proper communication techniques and assessing treatment needs. With respect to the provision of care, it will be the practice of the School of Dentistry to mainstream patients with special needs into the general patient population of the School. In this manner, the didactic training received regarding the treatment of special needs patients will be applied in such a manner that normalizes their care and does not call attention to the deficit or particular needs. These patients will be randomly assigned to students in the same manner as the general patient population except when school tracking data identifies students with less than acceptable numbers of encounters with patients with special needs.

*Biomedical Training* Biomedical science instruction at the University of Utah School of Dentistry will include the disciplines of general anatomy, general histology, head and neck anatomy, physiology, neuroscience, nutrition, oral histology and embryology, microbiology, general/systemic pathology and pharmacology. A separate course will also be required that deals with the role of research in biomedical sciences and its analysis through the tools of statistics. The basic science curriculum is organized logically and sequentially to allow the acquisition of a fundamental knowledge base necessary to make sound clinical judgments. It will be composed of 1084 clock hours of instruction which is greater than the most recently reported national mean of 826 hours (2001-02 American Dental Association Survey of Predoctoral Dental Education: Curriculum - Volume 4).

Evidence that an in-depth understanding of biomedical science principles will come from passage rate of the School's Basic Sciences Competency Exam and Part I National Boards. Augmenting the comprehensive nature of the curriculum by emphasizing the importance of the biomedical sciences, will be a formal review process for each basic science discipline conducted by the School just prior to the administration of Part I of the National Board. A mock examination will be given to the students after which discussions will be held regarding the topic areas covered. Attendance at these sessions will be mandatory. Although the largest concentration of biomedical science courses will be found in the first two years, placement of courses highly relevant to clinical practice, such as pharmacology and oral pathology, in the third and fourth years will emphasize the inter-relationships these topics with clinical dentistry.

In summary, the University of Utah School of Dentistry will provide dental students with requisite comprehension of basic biological principles as they apply to the field of dentistry in particular and the biomedical field in general. The curriculum will be highly integrated and comprehensive and will emphasize interrelationships between disciplines that are enhanced by collaboration among basic science, behavioral science and clinical science faculty on research. The basic science curriculum will specifically emphasize that the orofacial complex is an important anatomical area existing in a complex biological system that performs critical functions for, and has essential relationships with, the entire body. Additionally, courses developed later that are clinically concerned with the orofacial complex, will frequently present their discipline in the context of the acquired biomedical knowledge base so as to strengthen the integration between the pre-clinical and clinical academic and practical experiences. The University of Utah School of Dentistry will be part of the Health Science Campus located in an urban setting with a significant population of patients coming from rural areas. Students will treat and interact with a patient population that is quite diverse from the aspects of race, gender, age and socio-economic status. Utah has a rapidly growing minority population, of which Hispanics are the largest majority but also includes significant numbers of Polynesian and Asian. This affords students an opportunity to apply the knowledge skills presented in didactic courses as they manage a diverse patient population and function in a multicultural work environment. Because patient assignment will be done essentially on a random basis over the course of a two-year clinical experience, every student will acquire and treat a diverse portfolio of individuals. Additionally, every student will treat patients in each of four broad categories: pediatric patients (under the age of 13), adolescents (13 to 17), adults (18 to 65), and geriatric patients (65 and older). While the School of

Dentistry will maintain a database of the demographic characteristics of the patients seen in its clinics, race will not be allowed to be included in the demographic profile because of concerns associated with potential claims of discrimination.

The School of Dentistry will also participate in several outreach clinical exercises designed to deliver care to the disadvantaged. Through participation in these programs, students will spend four weeks in these clinics to gain valuable experience in managing a diverse patient population. These programs include the Greenwood and Family Dental Plan Community Clinics.

*Leadership Skills and Practice Management* Several courses in the curriculum will help to develop the skills required to lead members of the health care team while behaving in a professional manner. A junior-year course in practice planning will address the principles of practice management as they relate to the education of staff personnel relative to their professional responsibilities. This will be reinforced in the fourth-year business of practice and jurisprudence course. Collectively, these two courses will help students begin to develop the skills necessary to function as the leader of the oral health care team. These skills will be applied during the clinical experiences of the third and fourth years. While serving their pediatric dentistry rotations, students will work with dental assistants while practicing four-handed dentistry and serving as the leader of the health care team. The dental student will also have opportunities to work with hygiene students from regional programs (there will not be an oral hygiene program at the School of Dentistry) and serve as the leader of the healthcare team by coordinating his/her patients' treatment and by assuming responsibility for all follow-up care. In this manner, students at the University of Utah School of Dentistry will not only be given the knowledge to function as the leader of the oral health care team, they will be provided several practical opportunities to exercise and develop these skills.

Several courses in the curriculum will develop an understanding of the basic principles and philosophies of practice management. A course will be developed that deals with the application of computer technology to a contemporary dental practice. This program will apply practice management skills to scheduling and record keeping. Collectively, a junior-year course in practice planning and two senior courses in the business of practice and financial planning/jurisprudence will develop a practice management knowledge base that includes the following basic principles: (a) an understanding of the importance of developing, implementing and monitoring the business and legal aspects of a dental practice using expert resources including management consultants, accountants, attorneys, etc.; (b) recognizing the need to seek expert assistance in those situations where training or skills are insufficient or where such services would benefit the business and the practice; (c) understanding the use of business systems in a dental practice setting as they apply to scheduling, record keeping, reimbursement and financial arrangements; (d) understanding the various responsibilities of operating a business and the attendant legal obligations; (e) understanding the principles of money management; (f) understanding the use of business management outcomes measures to assess and modify practice policies; and (g) understanding the concepts involved with increasing productivity while maintaining quality care, including office ergonomics and goal setting. Furthermore, students will be offered the opportunity to have the director of these courses assist them in office design, the evaluation of contracts, and other relevant items. Finally, externship electives will be available as options to improve practice management skills by observing a practicing clinician. They will be coordinated through the Departments of Community and General Dentistry.

*Ethical, legal and regulatory concepts* Students at the University of Utah School of Dentistry will be competent in understanding and applying ethical, legal and regulatory concepts as they pertain to patient care and practice management. This will be achieved by helping students learn ethical reasoning, legal and regulatory concepts, and professional responsibility. Students will also develop

the requisite skills to apply this understanding to the provision and/or support of oral health care services, including patient care exercises and practice management.

Students will assume responsibility for professional judgment and ethical conduct by agreeing to abide by the principles of the University of Utah's honor code. This will occur at the beginning of each academic year. This responsibility will gradually increase during the first two years of study and culminate with the assignment of a family of patients for whose dental care they are made responsible. At the beginning of their graduate training, the dental students will attend a White Coat Ceremony, which demarcates the transition from predoctoral to graduate/clinical education, students will recite a pledge that reinforces the previous commitment to act and behave in a professional manner. During the course of meeting their patients' treatment needs, students will be bound by the principles contained in the Honor Code and White Coat Ceremony Pledge. In this manner, the degree to which students apply ethical, legal, and regulatory concepts to the practice of dentistry will be the same as that expected of a licensed dental practitioner.

The development of the requisite skills to apply ethical, legal and regulatory concepts as well as the principles of ethical reasoning and professionalism will be measured by technique/clinical competency examinations throughout the four-year course of study. This will usually be accomplished as a section of an examination whose primary focus will be to measure competence in a specific discipline, the development of which will be contingent upon the successful application of ethical, legal or regulatory concepts

Complementing the competency examinations in this regard will be faculty observance of behavior during all academic exercises. For some activities, such as some forms of academic misconduct or failure to adhere to specific School policies, the initial response will be to focus on individual counseling by the discovering faculty member. If the problem is severe or if recurrences are noted, the Associate Dean for Clinical Services (if in a clinical setting) or the Associate Dean for Academic Affairs (if in a didactic or preclinical laboratory setting) will be advised. They can either counsel the student or convene the Academic Misconduct Committee to manage the situation. In this manner, the School will assume responsibility for teaching these principles, for monitoring their application, and for correcting situations where compliance is lacking.

*Critical Thinking* Graduates of the University of Utah School of Dentistry will be competent in using critical thinking and problem-solving skills to guide clinical decision making during the comprehensive care of patients. They will demonstrate an understanding of critical assessment and scientific principles as they relate to the selection of appropriate biomaterials used in dental therapy. Students will achieve these objectives by participating in self-assessment exercises; by managing oral health care based on an application of scientific principles; by solving case-based learning exercises in didactic and clinical learning situations; by making judgments about the use of new procedures on patients; and by making judgments regarding the selection of appropriate materials and/or treatment modalities during the provision of care for patients. They will demonstrate an understanding of critical assessment and scientific principles as they relate to the selection of biomaterials by understanding the physical and mechanical properties of dental materials and the limitations imposed on their use in dental treatment and by selecting appropriate biomaterials to meet case-specific esthetic, biologic, and mechanical requirements. Skills will be determined by a series of competency examinations which will be administered throughout the entire four-year course of study.

Graduates of the University of Utah School of Dentistry will be competent in the use of critical thinking and problem-solving skills related to the comprehensive care of patients. They will also be competent in understanding critical assessment and scientific principles as they relate to the selection of appropriate biomaterials used in dental therapy. This will be certified by competency examinations administered in multiple formats during all four years of study to measure these skills.

*Patient Diversity* Because of the anticipated diverse nature of the patient population at the University of Utah School of Dentistry, students will be presented many opportunities to treat children, adolescents, and adults as well as geriatric and medically compromised patients. It is likely that experiences treating medically compromised patients will occur in all categories of patients; however, it is more likely to occur in patients classified as adults and geriatrics. These are persons who have a general physical, mental, and/or emotional condition that requires modifications from the usual pattern of receiving oral health care. Ensuring that all students receive adequate training in all patient classification groups is likely to be the consequence of a largely random process of patient assignment. Child and adolescent patients will be treated in the Pediatric Clinic in a block rotation format. The student will not be involved in the scheduling process; he or she will simply provide care for all assigned patients. In the Adult Clinic, more latitude will be granted in terms of scheduling; however, the composition of the student's patient family will be supervised by the School. When a student completes the care of a patient, another will be arbitrarily added to his/her portfolio without regard to any discriminating factors such as age or health status. In this manner, we expect that the percentage of patients treated by each student over a two-year clinical experience will closely mirror that of the general patient population of the School. This should ensure an adequate number of experiences with children, adolescents and adults as well as geriatric and medically compromised patients.

*Patient diagnosis and skills integration* Students at the University of Utah School of Dentistry will be competent in performing examination, assessment, and diagnosis procedures. Within the scope of general dentistry, as defined by the School, a graduate who meets this competency will be able to: (a) establish rapport with the patient to identify the patient's chief complaint and expectations; obtain and interpret a thorough medical history, social (behavioral) history, dental history, and a review of systems; (b) conduct an appropriate clinical and radiographic examination and distinguish oral pathological hard and soft tissue abnormalities; (c) assess the risk of radiation exposure and the diagnostic benefits of radiographic procedures in order to make an appropriate selection required for a diagnosis; order and interpret appropriate clinical, laboratory, and other diagnostic tests; (d) integrate and interpret the findings from these sources of information and identify the etiology and pathogenesis of each disorder; (e) identify the problems and conditions that require treatment as well as understand the pathologic physiology of systemic disease and its influence on oral health and treatment; (f) assess a patient's risk for oral cancer and provide appropriate advice for risk reduction; and (g) recognize the need for and institute appropriate medical and dental consultations or referrals. Both global or overview courses, such as oral diagnosis and oral pathology, and discipline-specific courses will be involved in the presentation of material and the provision of clinical experiences to assure that this competency will be met.

Students graduating from the School of Dentistry will be able to: (a) integrate multiple disciplines in the development of an appropriate, comprehensive, properly sequenced and individualized treatment plan based upon the evaluation of all diagnostic data; (b) develop treatment alternatives and establish prognoses for all plans of treatment; (c) modify treatment plans in an appropriate manner if indicated by the assessment of the data of special needs patients such as those with medically, mentally, or physically compromised conditions; (d) discuss the findings, diagnoses, treatment options, and prognoses with the patient and educate them so they can participate in the management of their own care; (e) present patients with their responsibilities regarding time requirements, sequence of treatment, estimated fees and payment; (f) obtain informed consent and the patient's written acceptance of the treatment plan; and (g) initiate appropriate medical or dental consultation or referral. They will be competent in understanding the principles of health promotion and disease prevention. Within the scope of general dentistry, as defined by the School, a graduate who meets this competency will be able to: (a) learn the importance of improving the oral health of

individuals, families, and groups in the community through diagnosis, treatment, and education; (b) recognize predisposing and etiologic factors that require intervention to prevent disease; (c) recognize and understand the pathophysiology of systemic disease and its influence on oral health and treatment; (d) provide patient education regarding the etiology and control of oral diseases; (e) provide dietary counseling and nutritional education; (f) utilize behavioral science principles to motivate patients to assume appropriate responsibility for their oral health care; (g) develop individualized preventive plans for patients; (h) manage preventive oral health procedures including a recall system; (i) perform therapies such as prophylaxes, fluorides, or sealants to eliminate local etiologic factors to control caries, periodontal disease, and other oral diseases; (j) apply principles of personal infection control that are compatible with current practice including barrier protection, appropriate immunizations, hazard control, and the disposal of hazardous waste; (k) utilize appropriate sterilization and disinfection procedures to prevent the transmission of disease; and (l) apply the principles of radiation biology and physics in a manner that is compatible with current radiation safety procedures.

**(v) Graduate/residency and auxiliary programs**

The current dental program at the University of Utah includes a 1-year General Dentistry Residency opportunity for 10 licensed graduates from accredited dental programs in the United States or Canada. This program offers opportunities to develop greater skills in all aspects of general dentistry in preparation for fellows to enter practice with more advanced competency and greater confidence in their clinical abilities. It is planned that the School of Dentistry will expand its graduate/residency offerings by including advanced programs in the fields of Pedodontics, Oral Pathology and Periodontics. These graduate programs will be established and appropriately certified by accrediting organizations representing these fields and will offer master degrees in the respective disciplines.

**(vi) College Interactions and Common Governance**

The School of Dentistry will be integrated into the University of Utah and the Health Sciences programs and participate in the common governance of the University programs as expressed in relevant charters and documents. We intend to expand our existing dental program and continue our current relationship which includes an existing agreement with the University of Utah Hospital for functioning clinics that are located: 1) at the University of Utah hospital within the health sciences complex and 2) at the University of Utah owned and operated Greenwood Dental Clinic located on 7495 South State Street, Salt Lake, City, Utah. Both clinics currently serve the General Practice Residency program as primary care dental clinics. The hospital clinic also supports the first-year occlusion courses for occlusal analysis procedures and preventive dentistry.

Faculty from the School of Dentistry will serve on appropriate governing councils and committees as do faculty from the schools of Medicine, and Colleges of Pharmacy, Nursing, etc. Additionally, School administrators, such as the Dean, will serve on appropriate health science committees, e.g. Medical Science Council, Dean's Forum, etc. For example, the School of Dentistry will participate in University common governance by having faculty representatives on the following committees by the Fall semester of 2013 when the first freshman predoctoral class begins coursework: (i) Academic Senate; (ii) Graduate Council; (iii) UPTAC; (iv) University RPT Standards Committee; (v) University Teaching Committee; and (vi) Academic Appeal Committee. Faculty representatives from the School of Dentistry will also be assigned to serve on other important and relevant University of Utah common governance committees as the faculty numbers increase.

Further evidence of interaction is demonstrated by the fact that faculty from the University of Utah School of Medicine currently instruct the first year dental students along with the medical students in embryology, histology, and gross anatomy courses. Neuroanatomy, biochemistry and physiology oriented specifically for the dental students are taught as separate courses to the dental students by faculty from the School of Medicine. Faculty from the College of Pharmacy will also participate in student instruction. We anticipate that these collaborative and interactive relations will continue with the establishment of the School of Dentistry.

We continue to maintain a close relationship with the Spencer S. Eccles Health Science Library allowing the students full access, as well as educational training and services for faculty through their facilities. The library maintains a large collection of dental journals and dental textbooks for student studies and research. Students also have access to the University of Utah's Marriott Library and its full array of educational and research services.

We have developed collaborative research participation with the School of Medicine and the Huntsman Cancer Institute and intend to expand to build a robust research program relationship which will also include the University of Utah Colleges of Pharmacy, Engineering, Biological Sciences, Chemistry, Behavioral Sciences, and others who will contribute to the fulfillment of our Strategic Goal to advance oral health through research and its application.

The School of Dentistry will also build upon its current relationship with the Department of Pathology in the School of Medicine and ARUP (Associated Regional and University Pathologists). For almost twenty-five years the Dental Education Program at the University of Utah has functioned within the Department of Pathology. With the creation of a new dental school program it is our intent to enrich our curriculum by our continued associations and collaborations.

The School of Dentistry will continue to have full access to the University of Utah's IT and communications services. This includes WebCT which will function as a testing and teaching resource for dental students and faculty.

In addition, the School of Dentistry intends to satisfy its obligations to the shared governance of the University by helping to populate the University-wide shared governance committees such as the Academic Senate, the Academic Appeals Committee, the Personnel and Elections Committee, the Council of Academic Deans, the Graduate Council, the Library Policy Committee, the Consolidated Hearing Committee, and the University Promotion and Tenure Advisory Committee. The School also intends to provide representatives to participate on an as-needed basis in relevant discipline-specific committees such as the IACUC, the Institutional Bio-safety Committee, the IRB for Research with Human Subjects, and the Radiation Committee. In the beginning, because faculty in the school will be modest, we will prioritize our committee participation with the intent that as the faculty for the School of Dentistry develops we eventually will be able to fully satisfy our obligations in this regard.

**(vii) Fiscal**

The budget presented in Section V of the R401 template represents a projected total budget for all pre- and post-doctoral elements/activities included in the School of Dentistry, and not just the 4-year degree-granting program.

In response to specific fiscal questions by the EC:

- There is no tuition income for the current year nor in FY 2012-2013 (Year 1) because there will be no pre-doctoral students until FY 2013-2014.

- The special fees/differential line in FY 2013-2014 (Year 2) consists of an academic-year tuition (\$28,735) that is the same as that paid by in-state medical students. When adding special fees for summer session, instrument rental, supplies, education materials, other non-tuition expenses, and a 5% annual inflation rate there is a total of \$1,027,234 for all of the first-year students. This total increases proportionally as the total students go from 20 in the 1<sup>st</sup> year to 80 in year 5 and reaches a sum of \$4,441,705.
- The student tuition makes up only a portion of the school revenue. Also considered in these calculations are: (i) clinic income from junior and senior predoctoral dental students; (ii) post-doctoral programs (e.g., the General Practice Dental Residency) also generate substantial funding; and (iii) additional support comes from investment interest on our endowment funds of over \$50 million. These substantial, predictable, and stable fiscal sources are combined with state appropriations and research grant and service contract income resulting in a total annual revenue for the School of Dentistry that exceeds \$14 million.

The University of Utah School of Dentistry will be a state-sponsored school and as such, the School's annual budget (revenue and expenditures) is reviewed and evaluated by several entities, including the Assistant Dean for Finance in the School of Dentistry; Assistant Vice President Health Sciences Finance; Associate Vice President for Budget and Planning for the University of Utah, etc. These reviews are to assure fiscal viability. We have taken several years to assure a solid basis for the School budget so that it does not depend on resources that are at risk. These include private funds (\$32 million) for the construction, equipment and completion of a building that currently are in the bank and available when needed. Land and infrastructure are provided at no cost. No state funds are being requested for construction.

Student tuition will account for a large share of the revenue. Tuition is set to be the same as the In-State medical school tuition (currently \$28,735.00/year plus fees), making the University of Utah School of Dentistry competitive and affordable, and assuring an on-going revenue source.

Clinic income is based on national averages for dental schools from a few years earlier, coupled with the experience of our dental General Practice Residency program clinics.

State appropriations are a line-item-based budget allocation and are assured continuation except for state-wide or University budget cuts which have historically been done on a percentage basis and not program by program or by elimination of a program.

Endowment funds (\$20 million) provide a guaranteed source of revenue since the principle is not spent (except for emergency shortfall) but only earned interest is used in the budget. These funds have pledges over the next five years to significantly increase the funds.

The short and long-term funding is very secure, predictable, and stable. A reserve of funds is available to compensate for any shortfall in a given year.

Budgeted faculty salaries were developed utilizing staffing strategies aiming at the fiftieth to seventy-fifth percentile on ADEA's national faculty salary surveys two years prior. A very generous benefits package which includes 14% of salary paid by the University into retirement plus one day a week private practice will add to the advantages of recruiting and retaining faculty. Funds are also set aside for each faculty member for support of professional development and travel. Internal programs in teaching skills, research methods and scientific writing will add to the development of the faculty.

The University of Utah School of Dentistry will not utilize compensation strategies that are defined by salary schedules. Salary projections are based on ADEA national salary percentile by academic rank



and responsibilities, and are similar to the methods used by the University of Utah School of Medicine. These decisions are made by the Dean and verified by the Vice President for Health Sciences.

**(viii) Research**

We recognize the vital role of research in the discovery, development and eventual translation of new biomedical knowledge and will make research and its attending outcomes integral to this School of Dentistry. This is essential if dental graduates are to: (a) be competent in assessing the research process; (b) conduct critical thinking and problem solving on their own; (c) develop and assess 'best practices' in the dental care they render; and (d) be prepared to provide relevant dental health services well into the 21st Century. To this end, the University of Utah School of Dentistry will integrate with the University of Utah Health Sciences and their outstanding tradition of biomedical research and translational philosophy. Thus, the research program in the School of Dentistry will be designed to foster collaborative efforts with investigators and clinicians throughout the University of Utah Health Sciences to optimize the application of unique resources and scientific expertise for both School of Dentistry students and faculty in order to identify and address problems related to issues of oral health.

As previously stated, our mission will be to further our understanding and the therapeutic management of oral structures and function through scholarly research and its translation. As our mission statement implies, we recognize that institutions charged to train and prepare clinicians to provide optimal dental care for the community must incorporate into their programs and scholarly activities, exposure to the critical elements of research such as its process, objectives and potential impact on biomedical issues in general and in dental practice in particular. By so doing, we will demonstrate our commitment to prepare the next generation of dentists with the intellectual skills and curiosity that will allow them to appreciate, contribute to, and comfortably translate research-related advances into dental practice in order to achieve best practices in their dental services. This will be accomplished by achieving the goals for dental students and faculty as part of the academic, scholarly and clinic opportunities and training provided by this Dental School; consequently, all students will have the opportunity to be engaged in research by achieving the following goals:

- (1) Enable all dental students to comprehend and accurately evaluate the validity and relevance of scientific discovery to biomedical sciences and practice of medicine, particularly as it relates to them in their practice of dentistry.

*Implementation:* Early in the first year of academic training, all dental students will be required to pass a "Biomedical Research and Applied Statistics" course wherein they receive instruction, and participate in discussions, concerning the scientific method and its role in biomedical research. This class will include exposure to basic statistical methodology as it relates to biomedical investigation and through relevant exercises and testing, successful completion of the class will assure that students can competently review scientific literature, assess its significance and evaluate its relevance to dental practice in general and their own clinical experience in particular. This class will emphasize the application of scientific and statistical principles to biomedical and dental research in particular to embellish the relevance to the dental students and facilitate the utilization of principles to the practice of dentistry.

- (2) Help students appreciate the vital role of research and scholarly activity in the biomedical field and dentistry in particular, and its future implications as these disciplines advance and contribute to improvements in health care.

*Implementation:* Encourage lectures both in the basic and clinical sciences to emphasize the role of research to the relevant course topics and its contributions to future development of the discipline. In addition, biweekly research seminars will be held in collaboration with the School of Medicine and or College of Pharmacy, wherein leading intramural and extramural biomedical researchers will describe their research strategies and present outcomes and their translational implications. These seminars will be partially supported by the School of Dentistry and on a monthly basis will focus on a dental related topic and be presented by both intramural and extramural researchers in a dental related field. During a semester students will be encouraged to participate by attending the presentations and preparing written reports for each seminar. On a monthly basis, a faculty member designated as the seminar director will meet with the participating students to discuss the student's assignments and associated research principles. Successful attendance and completion of the reports for a semester's worth of seminars (~7) will earn a student one semester credit to fulfill their elective requirements.

(3) Provide dental students with real-life, bench-top research and scholarly experiences.

*Implementation:* The most effective means of teaching students about the scientific process and the contributions of research to dental-related healthcare, are to provide actual hands-on research experiences. While it is recognized that it is impractical to provide each student with an extended exposure to an actual research project, for those students who are particularly interested and/or especially qualified, a program that provides research rotations will be included in the curriculum as an elective class. Upon successful completion of a 15-week commitment the student will be expected to submit a report to the research mentor and present a seminar for both students and faculty members that summarize the rationale for the research, the outcomes, and their analysis. Fulfillment of these requirements will result in 3 semester credits and successful completion of one elective course. In addition, to accommodate students interested in pursuing an academic career in dental-related sciences and desire a D.D.S. Ph.D. degree combination, there will be flexibility to work with such students to assure that they are matriculated in an approved and active Ph.D. (e.g., pharmacology, pathology, neuroscience, biochemistry) program and are able to expeditiously complete both degree prerequisites. Such combination programs are already available and have been used for other health professional students at the University of Utah, such as those in medical and pharmacy programs, with established curricula and grant programs to provide student support. The combination dental program will be similarly organized for exceptional and interested dental students. It is anticipated that such a program will typically require a total of 7 years, resulting in scholarly publications and competency as both a clinical dentist and an independent investigator in a dental-related scientific field. A student that completes this program will have clinical and research credentials that can lead to many academic and translational opportunities.

In addition, opportunities to evaluate research papers, prepare research-related papers, posters and seminars will be expected of the dental students as part of: (a) an occlusion course (first year); (b) a scientific project resulting in a paper and table clinic presentation in Preventive Dentistry (first year); and (c) an evidence-based review of clinical methodologies and the research process in two scientific articles resulting in an in-class dissection, review and discussion (Junior course on Evidence-based Dentistry).

(4) Promote recruitment of outstanding undergraduate students to the Dental School by providing them an opportunity to participate in dental-related research.

*Implementation:* Opportunities will be included in recruitment programs to attract top undergraduate students to the Dental School through participation in dental-related research.

Three-month summer research positions will be competitively available to undergraduate students to work with outstanding investigators who are members of the dental faculty. These rotations will include a stipend from endowment funds or grants to provide cost-of-living support for the students to incentivize their participation.

It will be a goal of the School of Dentistry to encourage its faculty to engage in research and to integrate these activities and attending perspectives and skills in student instruction and training by the achieving the following Strategic Goals:

(1) Encourage participation by faculty members in basic and/or clinical research and the process of translating research outcomes into practical applications.

*Implementation:* This goal will be achieved in the following ways: (a) emphasize the hiring of faculty members, especially those in leadership roles (e.g., department chairs), with appreciation for, and when possible, a history of accomplishments and active participation in research. This encourages a knowledgeable research perspective, as well as creates research activities in the school that provide mentoring and opportunities of participation for dental students and other faculty members with less research background; (b) provide special incentives to those who engage in research and are successful in securing research support. If student participation in the research is encouraged, such faculty members will be allowed release time from clinical and or teaching duties in order to pursue their research interests and will be allowed reasonable supplementation of their salaries commensurate with the research support and time requirements; (c) facilitate and encourage interactions between School of Dentistry faculty members, other biomedical researchers at the University of Utah, and dentists in the private sector to facilitate new research ideas and strategies through school-supported opportunities such as conferences and seminars; (d) provide appropriate laboratory space, equipment and facilities to realize the proposed research. This will be achieved by use of indirect budgets from grants and contracts and endowment donations at the University and School of Dentistry levels; and (e) provide funds from the offices of the Vice President of Health Sciences and research or endowment donations for either research startup packages for new faculty hires or to support pilot studies conducted by established dental faculty that have high potential for developing into projects that will be supported by extra-institutional resources.

(2) Provide opportunities for translation of dental-related research.

*Implementation:* Sponsorship by the School of Dentistry for conferences and seminars to facilitate and encourage the establishment of collaborations between faculty of the School of Dentistry, community dentists and others working in the biomedical field. In addition, when research findings become ready for translation into practical application, the Dental School working with the University of Utah CTSA (Clinical and Translational Science Award) program (NIH-funded resource program that consists of support systems such as clinical, statistical and informatics cores) will provide the necessary research facilities and infrastructure support to conduct requisite clinical trials to establish new therapeutic dental strategies. Because translation is a bidirectional process, the clinical elements of the School of Dentistry will also help catalyze new ideas and opportunities that can be the foundation for both basic and applied research, which in turn will create spin-off opportunities for new technologies, products or methodologies that will improve dental practice.

(3) Maintain faculty dental practices and facilities to not only provide clinical resources to attend to challenging cases, but also provide research opportunities and resources in a practice setting.

*Implementation:* Interested faculty will be allowed to pursue their own part-time practice using on-site clinical facilities. The participation of such faculty in clinical studies will be encouraged when appropriate to address important dental clinical questions.

(4) Utilize the unique research resources at the University of Utah to further understanding of dental-related issues.

*Implementation:* Few dental schools are located in a research-rich institution such as the University of Utah. To take advantage of these unique research opportunities to conduct dental-related research, faculty members at this School of Dentistry will be encouraged to conduct interdisciplinary scholarly activity by interacting with established institutional programs such as:

- The Huntsman Cancer Institute (a world-leading research and treatment center for cancers of all types including those associated with oral structures).
- The Utah Population Data Base (i.e., a world renown, uniquely powerful data base to conduct biomedical genetic research [including genetic issues related to dental problems] based on genealogical and medical records of stable, cooperative and large families associated with the Utah and intermountain region).
- Research-intense School/Colleges of Medicine, Pharmacy and Nursing (considered among the nation's leading research institutions with ~570 federally funded [large majority NIH] grants).
- Primary Children's Hospital and their associated pedodontic residency program: this program provides unique opportunities to conduct pediatric-related research.
- NCS (National Children's Study) Vanguard Center: this NIH-supported initiative is a 20-yr project to study the influence of environment on the biomedical development of persons from their prenatal state to adulthood and presents a unique opportunity to address research questions regarding the development of oral structures, their functions and disease consequences. An association with this Vanguard Center allows the School of Dentistry to participate in this very important longitudinal developmental study.
- The General Dental Residency Program: this hospital-based residency program (10 residents) offers a unique opportunity to conduct dental-related clinical research in a hospital setting.
- The Utah Addiction Center: this center facilitates interdisciplinary research in substance abuse issues such as tobacco and alcohol dependency and affords an opportunity to work with the School of Dentistry faculty to address research questions such as the impact of drug abuse on oral health and the role of dental services in the management of patients with drug addictions.
- The Center for Human Toxicology: this center conducts drug analysis in body fluids such as saliva and is eager to partner with the School of Dentistry to address research questions concerning the uses of saliva to do pharmacokinetic analysis.

- Center for Pediatric Pharmacology Program: this center helps the development of new drugs for pediatric care and is available to work with the School of Dentistry in the research of using pharmacology for treatment of pediatric dental problems such as novel analgesics.
- Anti-Seizure Drug Development (ADD) Center: This center has an outstanding history of screening for new drugs to manage seizure disorders. Because many of these drugs are also effective analgesics, the ADD program also screens for new pain management medications. Due to the need for improved analgesics for dental related pain, the ADD program is anxious to partner with the School of Dentistry to identify new small molecules affecting oral pain.
- ARUP pathology laboratories; this program conducts diagnostic and pathological testing and could work with the faculty to help develop new laboratory and diagnostic tests for diagnosing oral diseases.
- CTSA program (see above in (2) for a description of its role in clinical trials).
- Dental Research Institute: under the direction of Dr. Gordon Christensen this institute is widely recognized for its pioneering work in developing dental materials and improving dental practice strategies. An association with this Institute will stimulate opportunities for the University of Utah School of Dentistry to contribute to advances in these critical areas of dentistry and allow the School to collaborate with the Department of Bioengineering.

Such associations will help to foster and make possible opportunities to create compelling dental-related research projects in areas of genetics, medications, pain management, and pediatric management leading to competitive applications for federal (e.g., NIH), state and local grants and contracts. Such programs often serve as a cornerstone for new and exciting research initiatives as well as evolve into profitable entrepreneurial start up companies.