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Preamble to Competency Document 2021

The mission of our predoctoral education program is to lead with a contemporary and evolving curriculum centered in evidence-based patient care, critical thinking, and lifelong learning.

The mission statement is imbued in the goal of the DDS curriculum which is to prepare graduates to ethically and effectively serve their patients and communities by:

- Thoughtfully planning and skillfully providing dental treatment
- Assessing and using established and emerging science and technology
- Considering the individual needs as well as those of a diverse society to collaboratively promote health and reduce health disparities
- Thinking critically, demonstrating openness and humility, communicating effectively, and growing in knowledge and capability during their careers

These goals are embodied within our Competencies that define Readiness for Dental Practice document, revised in 2021 to reflect changes recommended through our curriculum management process. Our competency document lists all the competencies that a graduating dentist needs to demonstrate. These competencies are aligned with standards defined by CODA (Commission of Dental Accreditation) for the graduating dentist nationwide. Tracking how these competencies are taught and assessed facilitates monitoring of the overall curriculum and ensures that our future oral healthcare providers are competent in providing care to patients of all ages in diverse settings.

The goals for the revised competency document were as follows:

- To update/revise/modify the competencies to align with current CODA standards as well as future needs in dental education.
- To design a competency document that is easier for faculty to use and interpret for teaching and assessment.
- To facilitate tracking student progress.
- To facilitate curriculum management.

Instructions for faculty:

Please choose the most relevant competencies (preferably no more than 3) that your course covers based on the following criteria:

- Content relevant to these competencies are covered in detail (for each competency, the related course content is covered in at least in 15% of the course)
- Each of the competencies is assessed in the course, either formatively or summatively.
  
  (Ideally, every competency included should be covered in terms of content and also assessed in the course)

Examples of legitimate assessment of competencies.

Please note that these are general guidelines.
Preamble to Competency Document 2021

Glossary:

Self-Assessment/Self-directed learning: The explosion of scientific knowledge makes it impossible for students to comprehend and retain all the information necessary for a lifetime of practice. Faculty must serve as role models demonstrating that they understand and value scientific discovery and life-long learning in their daily interactions with students, patients and colleagues. Educational programs must depart from teacher-centered and discipline-focused pedagogy to enable and support the students’ evolution as independent learners actively engaged in their curricula, using strategies that foster integrated approaches to learning. Curricula must be contemporary, appropriately? Comprehensive, and must encourage students to take responsibility for their learning by helping them learn how to learn.

Critical Thinking: Critical thinking is foundational to teaching and deep learning in any subject. The components of critical thinking are: the application of logic and accepted intellectual standards to reasoning; the ability to access and evaluate evidence; the application of knowledge in clinical reasoning; and a disposition for inquiry that includes openness, self-assessment, curiosity, skepticism, and dialogue. In professional practice, critical thinking enables the dentist to recognize pertinent information, make appropriate decisions based on a deliberate and open-minded review of the available options, evaluate outcomes of diagnostic and therapeutic decisions, and assess his or her own performance. Accordingly, the dental educational program must develop students who are able to:

- Identify problems and formulate questions clearly and precisely;
- Gather and assess relevant information, weighing it against extant knowledge and ideas, to interpret information accurately and arrive at well-reasoned conclusions;
- Test emerging hypotheses against evidence, criteria, and standards;
- Show intellectual breadth by thinking with an open mind, recognizing and evaluating assumptions, implications, and consequences;
- Communicate effectively with others while reasoning through problems.

EBD: Evidence-based dentistry (EBD): An approach to oral health care that requires the judicious integration of systematic assessments of clinically relevant scientific evidence, relating to the patient's oral and medical condition and history, with the dentist's clinical expertise and the patient's treatment needs and preferences.

Cultural Competence: Having the ability to provide care to patients with diverse backgrounds, values, beliefs and behaviors, including tailoring delivery to meet patients' social, cultural, and linguistic needs. Cultural competence training includes the development of a skill set for more effective provider-patient communication and stresses the importance of providers' understanding the relationship between diversity of culture, values, behavior and language and the needs of patients (CODA definition).

Cultural competence training has three goals. First, it needs to increase future providers’ awareness of the importance of diversity, equity, inclusion and social justice in professional settings. Second, it centers on developing cross-cultural communication skills for more effective provider-patient communication and communication in dental teams. Third, it has to provide the knowledge base that allows providers to understand the relationships between diversity of culture, values, behavior and language and the needs of patients and dental team members. Cultural humility extends the idea of cultural competence, recognizing that care of patients and communities is interactive. Cultural humility is based on intentional and ongoing self-reflection in order to understand how one's beliefs, values, and assumptions are integral and influential to the health care relationship. Intercultural humility: demonstrate self-awareness and recognition of one's own beliefs, biases, and behaviors that impact all aspects of team-based patient-centered care and population health, resulting in the ability to customize services when working with diverse individuals or populations.

Special needs: Patients with special needs: Those patients whose medical, physical, psychological, cognitive or social situations make it necessary to consider a wide range of assessment and care options in order to provide dental treatment. These individuals include, but are not limited to, people with developmental disabilities, cognitive impairment, complex medical problems, significant physical limitations, and the vulnerable.
UMSD Competencies
Defining Readiness for Dental Practice
2021
<table>
<thead>
<tr>
<th>Cultural Competence &amp; Communication</th>
<th>Graduates are able to:</th>
<th>Examples of KSA (knowledge, skills, attitude) that support this competency: Graduates are able to:</th>
<th>Examples of Assessment showing student progression (D1 to D4) from “knows” (cognition) to “does” (behavior)</th>
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<tbody>
<tr>
<td>1.1 Communicate effectively with cultural sensitivity, intercultural humility and respect with healthcare professionals and patients from diverse backgrounds.</td>
<td>1.1a Demonstrate effective communication skills with peers, other healthcare providers and patients and their families from diverse backgrounds to establish rapport, obtain information, answer questions, address concerns, explain diagnostic tests and treatment options and support patients in making treatment choices. 1.1b Demonstrate effective communication skills with other healthcare team members from diverse backgrounds such as when providing interprofessional care, engaging in consultations, referrals and the management of dental laboratory procedures. 1.1c Demonstrate cultural competence and intercultural humility and respect in a variety of health care settings including interprofessional settings.</td>
<td>Knows: Essay style and MCQs assessing understanding of basic concepts of cross-cultural communication, and of understanding the role of social determinants of health for patients’ health and health care. Knows how: Having the awareness, skills and knowledge to analyze and discuss information provided in case reports and patient encounters as well as in interactions with other care providers that demonstrate understanding of the concepts in the domain. Shows how: Demonstrates competence in recorded interactions with peers and SPIs and by providing appropriate self and peer evaluations. Does: Preceptors/faculty assess performance during patient care. 14-point scale ratings by preceptors and faculty.</td>
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<tr>
<td>1.2 Integrate knowledge of the variable impact of social determinants of health on patients and their communities.</td>
<td>1.2a Describe the relationship between health and the social determinants of health with respect to patients and populations. 1.2b Apply knowledge of psychological, social, cultural, socioeconomic, ethical and health policy issues when working with underserved populations. 1.2c Demonstrate understanding of and respect for the role of diversity, equity, inclusion and social justice when working with patients from diverse backgrounds.</td>
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<tr>
<th>Professionalism</th>
<th>Graduates are able to:</th>
<th>Examples of KSA (knowledge, skills, attitude) that support this competency: Graduates are able to:</th>
<th>Examples of Assessment showing student progression (D1 to D4) from “knows” (cognition) to “does” (behavior)</th>
</tr>
</thead>
</table>
|                 | 2.1 Apply ethical and legal standards in the provision of dental care. | 2.1a Demonstrate the ability to apply ethical and legal standards to patient care.  
Knows how: Reflection paper on growth as a clinician as applied to a patient scenario  
Shows: Patient management grade; peer feedback  
Does: 14-point scale ratings by preceptors and faculty |
|                 | 2.2 Use self-assessments and external sources of feedback to engage in lifelong learning. | 2.2a Demonstrate the ability to assess their own learning needs to achieve/maintain/expand competency over the course of their professional careers.  
2.2b Reflect on their own performance and feedback from others.  
2.2c Decide when to refer, handoff, or consult with other health professionals based on the recognition of patient needs and their own limits of skills and knowledge. | |
|                 | 2.3 Apply business and practice management skills to clinical practice. | 2.3a Apply the concepts of quality assessment and improvement, and the principles of risk management and patient safety in patient care.  
2.3b Apply principles of business and financial management and legal and regulatory concepts to dental practice.  
2.3c Maintain patient records and document findings thoroughly, accurately and promptly. | |
<table>
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<tr>
<th>Critical Thinking/EBD</th>
<th>Graduates are able to:</th>
<th>Examples of KSA (knowledge, skills, attitude) that support this competency: Graduates are able to:</th>
<th>Examples of Assessment showing student progression (D1 to D4) from “knows” (cognition) to “does” (behavior)</th>
</tr>
</thead>
</table>
|                      | 3.1 Demonstrate critical thinking and problem-solving skills in patient care, scientific inquiry and research methodology. | 3.1a Identify problems and formulate questions clearly and precisely.  
3.1b Test hypotheses against evidence, criteria, and standards.  
3.1c Evaluate assumptions, implications, and consequences of norms and trends in dentistry.  
3.1d Demonstrate openness, self-assessment, curiosity, and skepticism | Knows: True false MCQs assessing understanding of the basic concepts of the domain e.g. critical thinking and problem solving  
Knows how: Resolution of simulated clinical cases  
Shows: OSCE, CAT  
Does: Clinical test case completion, 14-point scale, Case presentations |
|                      | 3.2 Evaluate, integrate and apply scientific evidence and biomedical, psychosocial and behavioral science principles to provide person-centered care. | 3.2a Access and critically appraise the best available scientific evidence as it relates to providing evidence-based patient care.  
3.2b Make decisions based on available evidence, patient factors and clinician expertise.  
3.2c Apply biomedical, psychosocial and behavioral science concepts in the delivery of patient care |
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<tr>
<th>Diagnosis &amp; Treatment Planning</th>
<th>Graduates are able to:</th>
<th>Examples of KSA (knowledge, skills, attitude) that support this competency: Graduates are able to</th>
<th>Examples of Assessment showing student progression (D1 to D4) from “knows” (cognition) to “does” (behavior)</th>
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<tr>
<td>4.1 Collect and interpret patient histories, identify patient concerns and preferences.</td>
<td>4.1 Collect and interpret patient histories, identify patient concerns and preferences.</td>
<td>4.1a Obtain a patient history using questionnaires and interviewing skills. 4.1b Ask follow-up questions based on patient responses or patterns in patient history using open-ended questioning. 4.1c Identify patient concerns and preferences. 4.1d Identify and record the patient's medications, their potential effects on oral and systemic health, and their impact on treatment.</td>
<td>Knows: MCQ to assess awareness and knowledge concerning taking a medical/dental history; written test on treatment planning steps  Knows how: Practical exercises using the clinical information system and a simulated patient.  Shows: Recorded peer and SPI history taking interactions; providing accurate self and peer evaluations of these recordings; Simulation treatment planning; OSCE  Does: Test cases, 14-point assessment ratings by preceptors/faculty, Daily Faculty Evaluation</td>
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<td>4.2 Perform a comprehensive patient examination and assessment.</td>
<td>4.2 Collect and interpret patient data, including a thorough intra/extra oral examination, and use these findings to assess patient needs accurately. 4.2b Select, obtain, and interpret diagnostic images and other diagnostic tests to support comprehensive patient assessment. 4.2c Identify the manifestations of systemic diseases and how these conditions and their management may affect, or be affected by, the delivery of dental care. 4.2d Identify signs of patient abuse and manage according to state regulatory guidelines for mandated reporters.</td>
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<tr>
<td>4.3 Identify and diagnose conditions that require dental management and treatment.</td>
<td>4.3 Collect and interpret patient data, including a thorough intra/extra oral examination, and use these findings to assess patient needs accurately. 4.3b Formulate a diagnosis list for all patients. 4.3c Formulate differential diagnoses as necessary.</td>
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<tr>
<td>4.4 Create treatment plans for patients of all ages and from diverse backgrounds that address patient needs, including consultations and referrals.</td>
<td>4.4 Collect and interpret patient data, including a thorough intra/extra oral examination, and use these findings to assess patient needs accurately. 4.4b Present treatment options and prognoses to patients or their legal representatives to ensure understanding and obtain informed consent. 4.4c Identify and manage the need for consultation with and/or referral/handoff to other health care providers.</td>
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<td>Healthcare Delivery</td>
<td>Graduates are able to:</td>
<td>Examples of KSA (knowledge, skills, attitude) that support this competency: Graduates are able to</td>
<td>Examples of Assessment showing student progression (D1 to D4) from “knows” (cognition) to “does” (behavior)</td>
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| 5.1                 | Monitor and provide for patient comfort associated with oral health care. | 5.1a Use behavioral strategies and pharmacological agents to manage patients’ pain and anxiety.  
5.1b Follow prescribing practices that minimize the risk of substance use disorder. | Knows: Written test MCQ assessing knowledge of basic principles related to clinical care.  
Knows how: Pre-clinic assessments  
Shows: OSCE, Simulations, Practical Exams  
Does: Test Cases; 14-point evaluation; daily Faculty evaluation |
| 5.2                 | Assess, prevent and manage medical and dental emergencies. | 5.2a Identify the signs and symptoms of medical emergencies and manage common medical emergencies.  
5.2b Assess and treat or refer patients with dental emergencies. |  |
| 5.3                 | Assess and manage the treatment of patients with special needs. | 5.3a Identify patients whose medical, physical, psychological, cognitive, behavioral, social or cultural characteristics make it necessary to consider a wide range of assessment and care options.  
5.3b Provide dental treatment or arrange for care for patients with special health care needs such as developmental disabilities, cognitive impairment, complex medical problems, significant physical and mental health limitations, and the vulnerable elderly. |  |
| 5.4                 | Demonstrate clinical skills to provide oral health care within the scope of general dentistry for patients of all ages. | 5.4a Demonstrate the following clinical skills:  
(a) Preservation and restoration of teeth.  
(b) Replacement of teeth including fixed, removable and dental implant prosthodontic therapy.  
(c) Periodontal therapy.  
(d) Pulpal therapy.  
(e) Treatments for/management of soft tissue diseases/disorders.  
(f) Hard and soft tissue surgery.  
(g) Management of space and treatment/management of malocclusion.  
(h) Evaluate the outcomes of treatment, recall strategies, and prognosis. |  |
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<tr>
<th>Health Promotion &amp; Disease Prevention</th>
<th>Graduates are able to:</th>
<th>Examples of KSA (knowledge, skills, attitude) that support this competency: Graduates are able to</th>
<th>Examples of Assessment showing student progress (D1 to D4) from “knows” (cognition) to “does” (behavior)</th>
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</table>
| 6.1 Identify and assess barriers, health risks and behaviors that increase risk of oral diseases based on individual and population trends. | 6.1a Identify conditions that increase risk for oral diseases, trauma and abuse.  
6.1b Identify, discuss and manage patient behaviors that affect their individual risk profile for oral diseases, trauma and abuse. | Knows: Essay style and MCQ assessing motivational communication knowledge and knowledge of risk factors and basic principles related to health promotion and disease prevention for individual patients and patient populations  
Knows how: Recording of peer and SPI interactions concerning health promotion and disease prevention such tobacco cessation counseling; Case presentations, Management of simulated cases.  
Shows: OSCE; Case analysis demonstrating application to a simulated patient scenario  
Does: Test case; 14-point assessment by preceptors/faculty | |
| 6.2 Plan and implement health promotion and disease prevention activities to address caries, periodontal disease and head and neck cancer. | 6.2a Collaborate with dental team members and other healthcare professionals to promote oral health, and awareness of disease prevention for individuals and communities.  
6.2b Plan and provide oral health education and make recommendations to promote and maintain health.  
6.2c Assess risk and plan and implement management strategies for oral diseases including caries, periodontal disease and head and neck cancer. |  |
| 6.3 Establish and maintain clinical spaces and work habits that protect against environmental hazards and transmission of disease. | 6.3a Demonstrate the ability to practice infection prevention and infection control and other environmental safety procedures. |  |
**Process for developing Competency Document 2021**

**Purpose:** The last version of our competency document was established in 2014. The charge for this group was to create a new, updated competency document.

**Competency Advisory Group (CAG) members:** Theodora Danciu; Charlene Erickson; Mark Fitzgerald; Diane Hoelscher; Phil Richards; Vidya Ramaswamy, Steve Stefanac.

**CAG process:** The CAG met from Dec 2020 to Aug 2021 almost on a weekly basis to revise the document.

Initially competency documents from other institutions (n=10) were reviewed. The team decided on a plan for the layout/structure/content for this new version. Each competency was carefully constructed with the team discussing the content, language, clarity and sentence composition.

The guiding principles for the new competency document were as follows:

1. Identify core competencies and the competencies (knowledge, skills, and attitudes) supporting these core competencies.
2. Use clear language in defining the competencies.
3. Have a more forward looking document that accommodates future advances in the profession.
4. Revise/add domains of competence if necessary.
5. Create a preamble to the competency document to support its use.

Multiple stakeholders and stakeholder groups were asked to give feedback. Individual faculty stakeholders included Romesh Nalliah, Domenica Sweier, Todd Ester, Marita Inglehart, Renny Franceschi, Sabrina Hammaker, Jerry Romeo, Margherita Fontana, Stephanie Munz, Meghan Weivoda, Renee Duff and Carlos Gonzalez.

Student stakeholders included Sara Tinawi and Kayla Tillman.

Stakeholders groups included the Community of Practice, Discipline Coordinators Group, and the Curriculum Committee.

The document was approved by the Executive Committee and was ultimately approved by a vote of the governing faculty in January 2022.

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**Core questions for feedback were:**

Are the competencies clear? Complete? And is there any redundancy?

Feedback from each individual was carefully considered by the CAG team and changes were made in the document through a group consensus. The team also mapped these competencies to the old competency document and current CODA standards to confirm applicability and completeness.

The main points in the new competency document are as follows:

1. **The 6 domains** in the new document include: Cultural Competency & Communication; Professionalism; Critical Thinking/EBD; Diagnosis and Treatment Planning; Healthcare Delivery; Health Promotion & Disease Prevention.
2. The new document has fewer competencies (n=18 as compared to n=57 in the older version).
3. In the new layout, the third column lists examples of knowledge, skills, attitudes that are part of each competency.
4. In the new layout, the fourth column lists examples of assessment for each developmental level at which the competency is considered.
5. The preamble to the competency document provides supporting information to this document.
6. The new document reflects a clearer and more intentional focus on issues related to DEI, social determinants, health disparities and equity.