An Integrated Competency Based Curricular Model for Ongoing Quality Assurance in Osteopathic Medical Education

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Objectives

• MUCOM Overview/Update
• Competency Based Curricular Design
  ▪ Online Exam System/Coding Structure
  ▪ Curriculum Mapping
• How We Will Use The Data
• Lessons Learned & Future Plans
• Q&A
Carnegie Report 2010

Carnegie Report:

- Student learning, not teaching, most important
- Emphasis on core material
- Competency-based learning and assessment with predetermined standards
- Lifelong learning
- Excellence
- Mentoring credentials unwritten curriculum


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www.marian.edu/medicalschool
MUCOM History/Update

- Student centered not faculty centered
- Maximum 25 contact hours per week on average
- Every lecture and lab has learning objectives and interactive learning
- Clerkships will have learning objectives and competency based outcomes
  - Student reading and lectures (on-line)
  - Assessment through OSCE and COMAT clerkship exams
  - End of clerkship competency project
- Early clinical experience in year 1
- FOMC 2011 (NBOME) domains as foundation of curriculum
- Competency based assessments of learning and skills
MUCOM Model

- “Think like a doctor from day one”
- Systems based courses with foundational clinical cases and group study
  - Anchor lectures from clinicians
  - Clinical findings the center for inquiry using biomedical science principles
  - Small group sessions explore learning objectives and context to whole-patient concepts

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- Exam Administration-Coding
  - Written & practical Exams-ExamSoft
- Systems
- Disciplines
• Competency Based Tracking
  - NBOME
    • Biomedical Science
    • NMM/OMM
    • Clinical Science (TBD)
  - Asymmetry Models

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• NMM/OMM
  ▪ OPP1&2
    • Anatomic relationship
    • Asymmetry Distance
  ▪ AACOM Posters/Pres.
Competency Based Curricular Design

• Curriculum Mapping
  ▪ Coding from ExamSoft
  ▪ NBOME Domains serve as competencies
  ▪ Two types: Competency Coverage Grid and Competency Map
    • Grid: Coverage in Each Course
    • Comprehensive Map: each domain mapped to three additional levels
      – Course, Assessment Type, Teaching Method
### Competency Coverage Grid

A competent COM graduate must be able to:

<table>
<thead>
<tr>
<th>Competency</th>
<th>OPP</th>
<th>KCM</th>
<th>AN</th>
<th>SFOM</th>
<th>HE</th>
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<tbody>
<tr>
<td>Domain 1: Osteopathic Principles &amp; Practice and Osteopathic Manipulative Treatment</td>
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<td>1.1. Describe the concept of body unity and recognize its role in whole person healthcare.</td>
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<td>1.2. Describe the concept of the interrelatedness of structure and function in the human body and how it guides physical examination for patient presentations.</td>
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<td>1.3. Describe how the human body's self-healing and self-regulatory mechanisms affect treatment options.</td>
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<td>1.4. Articulate the scientific knowledge supporting the use of osteopathic principles and practice and OMT, including the basic science of the mechanisms of OMT and somatic dysfunctions, and the current evidence base for the clinical application of OMT.</td>
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<td>1.5. Name and define the types of physical examination findings that are consistent with somatic dysfunction.</td>
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<td>1.6. Define, and describe the types of somatic dysfunction found within the ten body regions, which include the head, cervical, thoracic, rib, lumbar, pelvic, sacral, abdominal, upper extremity, and lower extremity body regions.</td>
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<td>1.7. Name and describe the symptoms and physical findings that are consistent with viscerosomatic, somatovisceral, and somatomatic reflexes.</td>
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<td>1.8. Name and describe the indirect and direct types of OMT, including the following techniques: counterten, muscle energy, myofascial release, high velocity, low amplitude thrust, soft tissue, lymphatic, osteopathy in the cranial field, articulatory, balanced ligamentous tension, ligamentous articular strain, facilitated positional release, Still, visceral, treatment of Chapman reflexes, and treatment of trigger.</td>
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<td>1.9. Identify the indications and contraindications of different techniques of OMT.</td>
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<td>1.10. Distinguish the relative value, advantages, and disadvantages of different techniques of OMT.</td>
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### Comprehensive Map

**Domain 1: Osteopathic Principles & Practice and Osteopathic Manipulative Treatment**

Candidates must be able to demonstrate knowledge of osteopathic principles and practice, and they must be able to demonstrate and apply knowledge of somatic dysfunction diagnosis and Osteopathic Manipulative Treatment in the clinical setting.

<table>
<thead>
<tr>
<th>Competency</th>
<th>Course(s) Addressed</th>
<th>Assessment</th>
<th>Teaching Method</th>
</tr>
</thead>
</table>
| 1.1.1 The candidate demonstrates the ability to describe the concept of body unity and recognize its role in whole person healthcare. | A1. Scientific Foundations of Med  
A2. Clinical Anatomy  
A3. Hematology  
A4. Skeletal Muscle  
A5. OPP 1  
A6. ICM 1  
A1. critical thinking assignment  
A1. group exams  
A2, A5, B1. practical exams  
A6, B1. group discussion eval, simulated patient encounter  
B1. Preceptor evaluation  
A2, A5, A6. Small group instruction, laboratory  
A1, A3. Podcast |

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How We Will Use the Data

- **Curricular Improvements**
  - Course Director presentations, end of course reports

- **Student academic success tracking**
  - Advisor Reports
  - Student Promotions Committee

- **Accreditation management**

- **Enrollment Management**
  - Correlations made to baseline data to exam scores/grades
Lessons Learned

• **Timing**
  ▪ Working ahead may not be realistic for all parties
  ▪ Coding takes time (patience is a virtue!)

• **Ease of Implementation**
  ▪ Embedded Assessment
  ▪ Consult/collaborate
    • Biomedical Sciences faculty NBOME coding model
    • Course Director pre-/post- meetings

• **Faculty Champions**
  ▪ Pilot new approaches
  ▪ Advocates for the cause
• Closing the loop on coding
• Streamline the quality improvement process for test items
• Longitudinal reports
• Exploring mapping technology
Questions?
References

• http://www.carnegiefoundation.org/elibrary/summary-educating-physicians