



**Name of Course & Topic – Short Title: ST Med III: 3D Vis Allied HlthTopics**

After completing this course, students will be able to represent human anatomy on a gross and microscopic level using three-dimensional software. They will also learn to create 3D representations of organelle and molecules. In addition, the learners will be introduced to fundamental tools for planning and creating lessons utilizing three dimensional virtual models and animations.

**5.0 Possible resources** (texts, references, computer packages, etc.)

- Lynda.com (RIT Library)
- Plurasight.com (RIT Library)
- Protein Data bank [www.rcsb.org](http://www.rcsb.org)
- Medical Illustration Sourcebook (examples/references) <http://medillsb.com>
- Science Magazine (examples/references) <http://science.sciencemag.org/>
- Association of Medical Illustrators (examples/references) <http://www.ami.org/medical-illustration/view-art-and-animations>

**6.0 Topics (outline):**

- 6.1 Defining instructional objectives
- 6.2 Defining learner background
- 6.3 Defining intended use
- 6.4 Conducting research and assessing visualization of proposed solutions
- 6.5 Constructing 3D assets that support chosen strategy for lesson
- 6.6 Assembling assets to create initial “draft” solution
- 6.7 Assessing initial “draft”
- 6.8 Constructing final solution
- 6.9 Assessing effectiveness of solution as a teaching or communication tool

**7.0 Intended course learning outcomes and associated assessment methods of those outcomes**

(please include as many Course Learning Outcomes as appropriate, one outcome and assessment method per row).

Course Learning Outcome	Assessment Method
7.1 Demonstrate ability to create 3D models/animations that match the intended use of the project (print, online static, streaming video, interactive model etc.)	Produce product and evaluate whether artwork successfully matches requirements of intended use.
7.2 Demonstrate through construction of the final solution a process consistent with professional practice in terms of research depth, efficiency, and cost	Project critique
7.3 Formally evaluate project effectiveness as a teaching tool	Pretests/ Posttests using appropriate learners

**8.0 Program outcomes and/or goals supported by this course**

- 8.1 To stimulate the development of effective methods for modeling and animating in a professional environment
- 8.2 To promote the integration of accurate, contemporary scientific research with the production of innovative solutions
- 8.3 To remain current with industry definition of entry level professional competency

**10.0 Required Resources** - Identify all resources needed to effectively teach this class and what students will need to complete the assignments. (Please provide detailed list of equipment, software, computer lab, data storage/retrieval requirements, special classroom, studio, shop, wet lab, work space or media requirements)

10.0 Computer lab

**Approval request date:** This is the date that the college curriculum committee forwards this course to the appropriate optional course designation curriculum committee for review. The chair of the college curriculum committee is responsible to fill in this date.

**Approval granted date:** This is the date the optional course designation curriculum committee approves a course for the requested optional course designation. The chair of the appropriate optional course designation curriculum committee is responsible to fill in this date.