

## Tentative Clinical Schedule

This list provides general recommendations for the *minimum* level of clinical education requirements at the specified time frames. At times, students may be ahead of this schedule which is acceptable. However, it is unacceptable when the student is not meeting the minimum requirements; therefore the Clinical Coordinator should be notified immediately. The first two weeks the student is in the clinic should be spent in orientation (completing forms, observing in the simulator, observing the treatment machines, etc.). Please refer to schedule below.

### Core Curriculum Courses taken prior to clinical rotation:

- Imaging and Localization
- Anatomy
- Radiation Safety
- Physics
- Computers and Networking

### Month 1—weeks 1-2:

1. Department tour
2. Complete orientation paperwork (student submits to Canvas – Clinical Practicum I)
3. Learn how to make electron blocks and immobilization devices used within the department.  
Note: Students should review how to make a block, even if custom blocks are outsourced.
4. Review the clinical department flow
5. Introduction to simulator

### Month 1—weeks 3-4

1. Introduction to treatment planning system
  - a. Review functionality and buttons
  - b. Encourage students to take notes!
2. Importing datasets
3. Begin contouring concepts
4. Observe and begin basic planning (POP fields, 3D simple techniques)
5. Begin working on Planning Lab Assignments

### Core curriculum course(s) student enrolled in:

- Radiation Dose Calculations: (will require a clinical instructor's assistance in completing assignments)

### Months 2/3:

1. Continue importing and contouring datasets
2. Begin fusing datasets
3. Assist/perform simple planning (spine, brain, AP/PA hip, etc.).
4. Observe/assist with 3D planning (weighting, 3+ fields, Off Axis prescription point)
5. Assist/perform exporting plans to the R & V system
6. Continue to work on Planning Assignments
7. Rotate student out to treatment machine for one week to observe treatments, if needed

### Core curriculum course(s) student enrolled in:

- Finishing up Radiation Dose Calculations
- Treatment Planning (will require a clinical instructor's assistance in completing assignments)
- Clinical Oncology

**Months 4/5:**

1. Perform all simple/plans and most 3D plans independently.
2. Observe IMRT process and assist with planning
3. Introduction into Brachytherapy planning (at least observing)
4. Be able to export plans to R & V system and check all parameters
5. Complete at least 4 clinical competencies by the end of the 1<sup>st</sup> semester (1<sup>st</sup> week in May)

**Core curriculum course(s) student enrolled in:**

- Finishing up Treatment planning course
- Brachytherapy (observe as many procedures as possible)

**Months 6/7:**

1. Student should be able to work as part of the department (import, contour, read prescriptions, plan most 3D cases completely independent).
2. Assisting with Brachytherapy plans
3. Begin planning simple IMRT cases (prostate)
4. Observe QA procedures (IMRT QA, Linac Monthly, e- measurements)
5. Rotate student out to treatment machine for one week to observe treatments if needed

**Core curriculum course(s) student enrolled in:**

- Brachytherapy (observe as many procedures as possible)
- Radiobiology
- Protocols and Studies in Rad Oncology

**Months 8/9:**

1. Continue to plan simple IMRT plans and start performing more difficult plans (H&N)
2. Observe and assist with Volumetric (VMAT) planning (if applicable)
3. Assisting with QA procedures
4. Start working through traditional treatment methods for craniospinal plans, bilateral neck with matching e-,
5. Complete at least 7 clinical competencies by the end of the 2<sup>nd</sup> semester (mid-August)

**Months 10-12:**

6. Perform Volumetric planning
7. Understand the differences between some of the more traditional methods of planning vs. the new methods.
8. Finish up any outstanding observations
9. If the student is still confused with how their plan relates to the actual patient treatment, rotate them back out to the treatment machine to observe.
10. They should be treated like staff for the most part.
  - Able to plan from start to finish with little help.
  - Can interact with the physicians and adapt to physician preferences.
  - Can perform Brachytherapy planning with little help
  - Can export plans to record and verify system and prepare plan for treatment on the accelerator
11. Complete the remaining 8 clinical competencies before the end of the 3<sup>rd</sup> semester (mid-December).

**Core curriculum course(s) student enrolled in:**

- Quality Assurance (will require a clinical instructor's assistance is working through different QA procedures done in the clinic)
- Seminar
- Professional Issues

**Other tips during their rotation:**

- Encourage participation from all staff members and in all areas of department
- Allow student to observe consultations, weekly visits, etc.
- Encourage students to participate in educational conferences on-site (tumor board, chart rounds, etc.)
- The student should be working with more than one medical physicist/medical dosimetrist for training and be able to appreciate the differences between planning techniques

**Active involvement by Clinical instructors:**

- Clinical instructors (not only preceptors) should be familiar with the competencies and course lab assignments that the student is required to complete.
- Assist the student in performing these procedures (competencies and assignments)
- Go over all evaluations directly with student so they are aware of things to work on and can voice any concerns
- Encourage the students to work on their planning assignments and competencies and to schedule adequate time to complete them in advance