

**GRADUATE PROGRAM IN
MEDICAL DOSIMETRY
*CLINICAL INSTRUCTORS HANDBOOK 2023-2024***

6/6/2023

This handbook will be superseded by all versions bearing subsequent dates.

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A. PRECEPTOR DESCRIPTION

The Clinical Preceptor is designated by the clinical site and may include more than one person. Their resume is submitted with the JRCERT application for approval. The following are the duties and requirements given by the JRCERT:

Clinical Preceptor Duties:

- Is knowledgeable of program goals
- Understands the clinical objectives and clinical evaluation system
- Understands the sequencing of didactic instruction and clinical education
- Provides students with clinical instruction and supervision
- Evaluates students' clinical competence
- Maintains competency in the professional discipline and instructional and evaluative techniques through continuing professional development
- Maintains current knowledge of program policies, procedures, and student progress

Clinical Preceptor Requirements:

- Is proficient in supervision, instruction, and evaluation
- Documents two years clinical experience in the professional discipline
- Holds Medical Dosimetrist Certification Board registration or equivalent. Equivalent qualifications are certification by the American Board of Radiology (ABR) as a radiation oncologist or the American Board of Medical Physicists as a medical physicist.

B. CLINICAL INSTRUCTORS DESCRIPTION

Clinical instructors are any staff that provides students with clinical instruction.

C. CLINICAL EDUCATION ATTENDANCE

Exact start and end times, lunch and break schedules, etc. are determined by the clinical education center. Clinical education centers are expected to schedule students for clinical hours for attainment of academic credit as specified by the program. Clinical experience hours must not exceed 10 hours/day and 40 hours/week (including class time and clinical hours) at any time and students must not receive compensation from the clinical education center as employees during student clinical hours. The JRCERT defines the operational hours of traditional programs as Monday - Friday, 5:00 a.m. - 7:00 p.m.

Clinical Education will be scheduled only during university class sessions. Clinical education schedules will follow the university calendar, including holidays, and breaks. No clinical education is scheduled between terms. Clinical Instructors may adjust the student schedule according to department patient load or special case availability with the approval of the program director. The current Grand Valley State University academic calendar available at <https://www.gvsu.edu/registrar/academiccalendar.htm>

The students will be attending a one-hour virtual synchronous online class through video conference. The students will be excused from the clinic during this time and will not be required to make up the time up.

Clinic Schedule Rules

- Lunch breaks do not count towards clinical hours. (For example: 8am-4:30pm, with a 30 minute lunch = 8 hours of clinical education.) A lunch break is required for 6 or more hours of clinical education.

- Time is recorded in 30-minute increments.
- Clinical experience hours must not exceed 10 hours per day and the total didactic and clinical involvement to not more than 40 hours/week at any time (typical max is 32 clinical hours per week during the semester).
- Students may not receive compensation from the clinical education center as employees during student clinical hours.
- Clinical hours can only be in 1 section per day and a minimum of 4 hours. During the designated lunch time, students cannot work as employees. (Meaning students cannot go back and forth between being an employee and student).
- Clinical hours must be directly supervised (staff must be present and able to train).
- The national dosimetry program accreditation agency, JRCERT, defines the operational hours of traditional programs as Monday - Friday, 5:00 a.m. - 7:00 p.m.
- Part-time students are required to do a minimum of 16 hours per week during the semester.

CLINICAL ROTATION MASTER PLAN (Full-time Option)

- 1st term (Aug-December) - 14 weeks x 4 days per week x 8 hrs per day = 448 clinical contact hours (56 days)
- 2nd term (Jan-April) - 14 weeks x 4 days per week x 8 hrs per day = 448 clinical contact hours (56 days)
- 3rd term (May-August)- 12 weeks x 4 days per week x 8 hrs per day = 384 clinical contact hours (48 days)
- 4th term (optional) - additional available time for students who have not completed all mandatory competencies or who require clinical support for theses/projects

Total = 1280 clinical contact hours (160 days or ~8 months of full-time experience)

Additional clinical education may be required if all mandatory competencies are not achieved in three semesters for full-time students or the equivalent for part-time students (see Remediation). Part time clinical education can be no less than half the hours of the full-time option. These hours must be approved by the Clinical Coordinator and Program Director prior to class registration. The program adheres to the 112 clinical education hours per 1 semester credit ratio.

Students **may not** be in clinic when GVSU is closed (dates below). Also, note that if GVSU closes for any reason (weather, etc) students may not be in clinic.

D. STUDENT DIRECT SUPERVISION

All Medical Dosimetry students shall be under direct supervision during their clinical hours. The JRCERT defines direct supervision as student supervision by a credentialed practitioner (e.g., registered radiation therapist, credentialed medical physicist, licensed radiation oncologist) during all aspects of the procedure. All medical dosimetry calculations and treatment plans must be approved by a credentialed practitioner prior to implementation and a certified person must be in the room during patient contact. Direct patient contact procedures (e.g., simulation, fabrication of immobilization devices, mold room etc.) must be also performed under the direct supervision of a credentialed practitioner. Under no circumstances shall any student ever provide indirectly supervised care or treatment of any patient.

Observation sites may be used to witness the operation of equipment and/or procedures. An observation site is used for student observation of equipment operation and/or procedures that may not be available at recognized clinical settings. Students may not assist in, or perform, any aspects of patient care during observational assignments. During the last semester of clinical education, students are limited to a maximum 2-week observation/rotation. The observation/rotation cannot occur during the last week of clinical education.

E. COMPETENCIES

All competencies are based on information taught during university courses and clinical education. Students must successfully complete 26 mandatory clinical competencies and 5 elective activities during the course of their clinical education experience. There is no specification regarding the order of competency mastery, just the specific number of mandatory competencies, as outlined in the course syllabi, must be completed to be eligible to receive credit for clinical courses.

Students are expected to observe a qualified medical dosimetrists or physicist perform each procedure, practice the procedure independently until they believe they can meet the competency expectations of an MDCB qualified medical dosimetrist, then request and pass at 100% level competency on each of the identified mandatory procedures. The student is responsible for notifying staff that they are ready to perform a competency. This is normally done by asking a qualified evaluator in advance of the procedure. Students should not expect to be evaluated on a procedure until they have demonstrated their ability to perform the procedure to an acceptable level. Competencies can be performed on new scans, previous scans or on scans in the GVSU database, although it is preferred the students perform their competency on a new scan that will be used for treatment. The competency will be done independently and in a reasonable amount of time. The observation and evaluation of the student's procedural skills is required to be evaluated by a certified medical dosimetrists or certified medical physicist. It is not required that the preceptor sign all competency forms. Multiple competencies cannot be completed at the same time (only one competency per patient attempt). For competencies, students are not allowed to use autocontouring, autoplanning or EZFluence (or similar programs), and automated processes should be limited as much as possible. The student needs to show competence in the manual treatment planning process, since all clinics have different levels of automation and artificial intelligence.

The evaluator will complete the Mandatory Competency Evaluation Form after the student has informed the evaluator the competency attempt is completed. The evaluator will evaluate each Task item, and mark each task as P (pass), F (fail), or NA (not applicable). For mastery, the student must Pass in each Task listed unless a specific task is determined N/A by the evaluator. The student should be performing as many tasks as possible. The competency is considered a Fail and should be repeated by the student for mastery attainment if the plan is not treatable, or unacceptable for treatment, or has an error that makes a significant difference in the distribution. If a competency is a fail, the student must continue to practice the competency, and then request another competency attempt once ready. A new patient must be used for a new competency attempt.

During the first semester (RMD 661), tasks #16 and #17 on the Mandatory Competency Evaluation Form can be N/A (16. Independent calculation performed (Hand calc., Computer MU Calc., etc.; 17. Record and Verify System information), but during the second (RMD 662) and third semester (RMD 663) of clinical education these tasks must be completed with each competency attempt. Multiple patients can be used to achieve the required tasks for a single competency attempt if needed.

Once competencies are graded, they are considered confidential and need to be kept secure until given to the student (example: in a locked drawer). Competencies may be rejected by university faculty if deemed necessary due to failure of evaluators to note errors. There is no penalty for failing a competency. All failed competencies

are required to be uploaded to Blackboard.

Elective Activities

Evaluators are not required to complete a Mandatory Competency Evaluation Form for elective activities but must sign and date that the elective activities was performed on the Student Competency Checklist for Graduation.

F. GRADING

Grades are done by the GVSU faculty instructor. Students are responsible for uploading paperwork to Blackboard. There is no penalty for failing a competency. All failed competencies are uploaded to Blackboard.

G. PREEPTOR PERKS

Clinical preceptors and instructors are eligible to sign up for the GVSU Preceptor Perks Program. The GVSU title for clinical preceptors are Affiliate Clinical Faculty. Follow the link to sign up for the program:

<https://www.gvsu.edu/preceptorperks/cms-form-edit.htm?formId=1E84C83E-FC57-44C9-57DCF252DFBD67E3>

H. SITE VISITS AND PHONE CALLS

During each semester, the GVSU faculty instructor will be in contact (phone call or zoom) with the clinical instructors and students once a month. If needed for any reason, more frequent communication will occur until the situation is resolved. Clinical instructors and students are encouraged to contact the GVSU faculty instructor or Clinical Coordinator at any time.

I. CLINICAL INSTRUCTOR MEETINGS

Clinical Instructor Meetings are held once a semester by the Clinical Coordinator through Zoom. Attendance and feedback is encouraged, although the meetings are recorded for those who cannot attend.

J. COURSEWORK

Below are the courses the students are taking per semester. The syllabus for each course will be emailed to the clinical instructors.

Fall	Winter	Spring/Summer
STA 610 Applied Statistics for Health Professions (3)	RMD 630 Medical Dosimetry I (3)	RMD 632 Medical Dosimetry II (3)
RMD 620 Dosimetry Treatment Planning I (3)	RMD 622 Dosimetry Treatment Planning II (3)	RMD 670 Professional Issues in Medical Dosimetry (3)
RMD 621 Dosimetry Treatment Planning I Lab (1)	RMD 623 Dosimetry Treatment Planning II Lab (1)	RMD 663 Medical Dosimetry Clinical Education III (4)
RMD 661 Medical Dosimetry Clinical Education I (4)	RMD 662 Medical Dosimetry Clinical Education II (4)	RMD 693 Medical Dosimetry Research Project or RMD 695 Medical Dosimetry Thesis (1-3)
RMD 693 Medical Dosimetry Research Project or RMD 695 Medical Dosimetry Thesis (1-3)	RMD 693 Medical Dosimetry Research Project or RMD 695 Medical Dosimetry Thesis (1-3)	
Total: 13 credits	Total: 13 credits	Total: 12 credits

K. RESEARCH PROJECT

If the student chooses to use clinical patient data for their Medical Dosimetry Research Project, Institutional Review Board (IRB) approval will have to be obtained from the clinical site and GVSU. The IRB process typically takes about 3 months to complete. The students are encouraged to start the IRB process early and may require assistance from clinical staff. The student's advisor and GVSU's Associate Dean of Research will also provide guidance and assistance.

L. STUDENT PLACEMENTS

In an effort to bring equity to all students in the program, cost and experience, new equipment deliveries, procedures completed, and distance from campus are considered by the Program Director and Educational Coordinator when assigning students to clinical locations. Upon agreeing to take a student for the following cohort, clinical sites accept the student the Program Director places. Students will be allowed to request clinical sites based on their geographical location, but the ultimate decision for clinical placement will be nondiscriminatory and at the discretion of the Program Director and Clinical Coordinator.

- i. Clinical placement will be determined by the Program Director and Clinical Coordinator in consultation with the student and clinical preceptors at the time of admissions.
- ii. Students are informed in advance of the assigned site of clinical rotation. This schedule is distributed to students and the Clinical Education Centers. This schedule is at the discretion of GVSU faculty.
- iii. Clinical faculty at the clinical education centers determine the student rotations at a particular institution based on direction from the university. This may include several locations in the same hospital system. Clinical Instructors may adjust the student schedule according to department patient load or special case availability with prior approval from the Program Director or Clinical Coordinator.

M. REMOTE CLINICAL EDUCATION POLICY

At any point, JRCERT or GVSU may update/create new policies which will require changes to the Remote Clinical Education Policy. The current JRCERT Policy states if there is a separation between the student and the instructor, this is considered remote clinical education.

The following is the GVSU remote clinical education policy for two types of remote clinical education:

1. Student is **not** physically in the clinic
 - a. Only if **all** dosimetry staff (instructors) are working remotely, up to 50% of the student's clinical **week** may be done outside of the clinical setting. This will be calculated per week, so that the overall clinical hours will not exceed 50% remote.
 - i. If there is staff in the office and able to train the students, then remote clinical education will not be allowed and the student will be required to attend clinic onsite.
 - b. Exceptions: COVID related reasons (case by case as approved by the program)
 - c. Remote learning is not to be used for normal illness, childcare, pregnancy, travel issues, moving, etc
2. Student **is** physically in the clinic, but the primary instructor (e.g. dosimetrist) is remote:
 - a. As long as there is other staff readily available (e.g. physicist) that have the necessary treatment

planning skills, this type of remote learning is allowed up to 100%.

For all remote clinical education, the following requirements have to be met, otherwise the student will not be able to do remote clinical education and must return to in-person clinical education. The student will be responsible for establishing an appropriate and safe environment for remote clinical education.

Direct Supervision

- All medical dosimetry calculations and treatment plans must be approved by a credentialed practitioner prior to implementation.
- Students have to communicate (email, phone call, etc) to their clinical instructor when a clinical plan is ready to be reviewed (that will be used for treatment), so that the dosimetrist can review and approve the plan before implementation.
- To ensure direct supervision is occurring, students and their clinical instructor must be able to log into a video conferencing system that has the capability to share screens. The video does not need to be turned on, but the screen must be shared during plan review. See Communication section.

Communication:

- Must use a video conferencing system to share screens (Zoom, BB Collaborate, etc)
 - Treatment plans have to be reviewed using this system.
- Verbal Communication Frequency: At a minimum, the students and clinical instructors must be verbally communicating twice a day. The students should receive communication of the following, at the beginning of their clinical day:
 - Expectation for planning/workload.
 - What should be accomplished by the end of the day.
 - When the instructor is available for questions.
- The student and clinical instructor agrees to be accessible by phone, e-mail, or other mode of communication (e.g., instant messaging) within a reasonable time period during the agreed upon clinical education schedule.

Attendance:

- Students must follow their “Clinical Education Schedule Worksheet” that they have submitted. If their schedule changes, they still have to email the Program Director and Clinical Instructor for permission. Students are held to the same schedule restrictions as found in the handbook.
- The standard “Clinical Education Attendance Record” time sheet will still be used.
- It is also expected that students attend regular staff meetings that are now remote, as available and appropriate (tumor board, peer review, etc).
- Students are required to have appropriate child care arrangements in place during their scheduled clinical education hours to ensure uninterrupted focus and productivity.

Journals

- In addition to attendance, students must journal a summary of their daily activity for each clinical day they remotely attend. The journal must be a Google doc, and grant both the clinical instructors and GVSU faculty access. It should include the date and 1-2 sentences summarizing the activities of the day and be completed every remote day.
 - **Do not include patient information.** The journal will be checked by the GVSU faculty once a week.
- If students do not consistently maintain productivity and performance expectations, then remote clinical education can be revoked.

Planning System

- Students must have access to the hospital's planning system to gain clinical hours.
- Competencies and clinical hours can be gained using practice patients / non-clinical patients.

Documentation

- All of the standard documents (attendance, evaluations, etc) will still be collected at the end of the semester.

Hours and Competencies

- Both the required number of clinical education hours and number of competencies for the semester must be completed either through remote education or in-person to gain credit for the course.
- Competency attempts must be proctored by the clinical instructor. The student is required to use screen sharing and have their video on throughout the entire duration of the competency attempt.

N. CONTACT INFORMATION

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Medical Dosimetry Program

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Statement of Understanding:

IMMEDIATE DISMISSAL POLICY

I understand that all students are to be treated as students during clinical hours, even if they are employees. The following list of requirements must be adhered to at all times from all students. If at any time these policies are violated, it will result in **immediate dismissal from the program**.

1. Students are not allowed to “sign off” on any plans. This includes, but is not limited to, plans in the treatment planning system, electronic charts and paper charts. There must always be a supervising certified dosimetrists or physicist signing the plans.
2. Clinical hours can only be in 1 section per day and a minimum of 4 hours. During the designated lunch time, students cannot work as employees. (Meaning students cannot go back and forth between being an employee and student).
3. Students cannot change from their submitted Clinical Education Schedule Worksheet without prior approval from both the program director and clinical instructor.
4. Students may not receive compensation from the clinical education center as employees during student clinical hours. Students cannot be used as a replacement for employees.

I understand and agree to this policy:

Printed Name

Student Signature

Date



Medical Dosimetry Program

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RECOGNITION ABOVE AND BEYOND FORM

If you observe a Grand Valley student performing above and beyond expectations, please take a moment to complete the form below:

Student Name	Name of person that observed performance
Date	Clinical Educational Center
Description of the performance that is above and beyond expectations	
Clinical Instructor comments	
Clinical Instructors signature	Date