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COMPETENCY BASED CLINICAL EDUCATION

Philosophy of Competency Based Clinical Education

Clinical Education is a competency-based system. By that, it is meant that students progress through the clinical education system based on demonstration of acquired skills. Additionally, competency based education implies that the student is introduced to new information and skills in a step-wise, planned fashion with skill verification at each level before students may progress to the next level. The cardiovascular interventional specialist must progress through a series of affective, psychomotor and cognitive learning experiences in a clinical setting that practices cardiovascular interventional medicine.

Clinical assignments will be structured to provide the student with observation experiences in a broad range of cardiac and vascular procedures, both diagnostic and therapeutic. These experiences will be under the supervision of practicing cardiovascular professionals, nurses, and physicians. Students will be expected to be participants in all aspects of the procedures, observing site specific protocol. The cardiovascular interventional specialist must possess the skills to prepare the patient for the examination, obtain the medical history, select appropriate equipment, provide patient care within the scope of practice, follow established protocols for each examination, assist in the acquisition and archiving of all images related to the studies, discuss the case with the supervising physician, and understand the medical record process of each clinical facility.

Competency based clinical education begins before the student enters a clinical education course. For each skill or procedure, the student follows the following process:

- Receives didactic (classroom) instruction on anatomy and procedures as part of the Procedures courses.
- Observes a demonstration of the procedure
- Peer simulated in the laboratory
- Produces radiographs in the laboratory using phantoms, cadavers and patients
- Participates in role-playing with other students
- Reviews anatomy and pathology
- Evaluates images

Admission to Clinical Education Courses

Admission to all clinical education courses is limited to individuals who have met the following criteria:

- Successful completion of all radiologic courses required to that point. A single grade of “D” is permissible is a RADS course, with the exception of RADS 3000 and RADS 3071, which must earn a grade of “C” or better.
- Concurrently enrolled in all required RADS and non-RADS courses for that semester
- Permission of faculty of record
Clinical Grading and Grading Forms

Each student will be given a clinical course syllabus at the beginning of each semester during clinical orientation. Each syllabus will present details concerning grading criteria, objectives, and will contain grading and evaluation forms needed for the semester. In addition, each clinical preceptor will be given a copy of all syllabi and all required forms.

Instructional Methodology

These methods of instruction will be utilized for clinical education:

- Demonstration and observation
- Discussion
- Simulation and opportunities for repetitive performance
- Required readings from professional journals and textbooks

Clinic Committee Role

The clinic committee’s purpose is to review the clinical education process and to provide input to produce graduates who possess a strong sense of professionalism. The committee also has the function of reviewing the process to insure that clinical education is carried out at all clinical education centers in as uniform a manner as possible. The clinic committee is made up of Radiologic Science faculty and preceptors from each clinical facility. One student representative from the junior and senior class may be invited to attend a portion of the meeting. The program coordinator serves as chair for the meeting. The committee will consider requests from students for changes in the clinical education system or in the handling of specific student situations. The committee meets approximately two to three times per year.

Clinical Evaluations

The clinical evaluation form will be used to evaluate the relevant personal traits (affective objectives) in the clinical setting. Every student will receive 4 evaluations each 7 weeks they are in clinic beginning with Friday of the second week. An evaluation MUST come from the technologist to which the student is assigned. Students will have an alternate technologist in the event their assigned technologist is absent. If neither assigned technologist is present, the student shall contact the clinical preceptor or the clinical instructor for an assignment. In the even a student turns in an evaluation from someone other than their assigned or alternate technologist, the evaluation is not counted and the student is given a zero for that evaluation.

The clinical evaluation form is graded on the average of the responses on the form that range from one (1) [the lowest] to three (3) [the highest].

Students are encouraged to collect the forms from the staff members and discuss the evaluation with the staff member. It is acceptable for the staff member to return the completed evaluation to the preceptor or clinical instructor without discussing it with the student. If a student fails to turn in an evaluation for any given week at the specified
time, the student will be given a zero (0) for that evaluation. It is the student’s responsibility to make sure this form is submitted on time. If the student is absent on the day that the evaluation is due, the student will receive 50% credit for the evaluation if turned in on the first day returning to clinic. If the evaluation is turned in later than the first day returning to clinic, the student will be given a zero (0) for that evaluation.

**Clinical Affective Objectives**

While in the clinical setting, the student will:

1. Maintain appropriate dress and hygiene habits.
2. Communicate with faculty, staff and patients in a clear and concise manner
3. Show initiative by performing above and beyond assigned tasks
4. Follow directions
5. Come prepared to clinic by having all necessary items
6. Conduct oneself in a professional manner
7. Demonstrate a professional attitude by being interested in learning new skills and accepting constructive criticism
8. Follow through on all tasks to completion
9. Work well with others by being willing to help staff and other students
10. Maintain self-confidence by not being overly confident or possessing no confidence
11. Be in attendance in clinic and in assigned area
12. Retain composure under most conditions by not becoming agitated or upset with confronted with new or difficult situations
13. Support patient safety according to current Joint Commission safety standards

**Special Grading Criteria**

A final clinical examination will be given at the end of each clinical education course. The examination final for Clinical Education I will be taken from didactic courses and clinical education up to that point.

There will be a final examination for Clinical Education II and a separate Rising Senior Examination. This examination will consist of questions derived from Radiologic Sciences courses completed the first year of enrollment. Students will be required to pass this exam with a score of 60% or higher. In the event a student does not make a 60%, that student is required to receive faculty-mandated remediation during the summer of their senior year. The cardiovascular interventional science program coordinator and the radiologic science faculty will determine the specific remediation required. If a student required to complete remediation does not complete the assignments satisfactorily, the student will not be allowed to register for any required Radiologic Science course in the fall semester of the senior year. In the event this occurs, please refer to the progression requirements in Radiologic Sciences Policies and Procedural Manual.

The final examination for Clinical Education III will be taken from didactic and clinical education courses up to that point.
The final examination for IV will be taken from didactic and clinical education courses up to that point.

There will be a final exam for Clinical Education V.
CLINICAL POLICIES

Dress Code

A uniform is an external indication of professionalism. Consequently, all uniforms must be neat, clean, and professional in appearance. The department will select the uniform style to be purchased by the student. Uniforms will be worn with white leather lace-up athletic shoes or approved nursing shoes and white socks (not anklets) or stockings. Clogs are not permitted. Students are required to purchase the program approved uniforms and lab coat(s).

Hair will be neat, clean, and acceptable length (acceptable length will be determined by the Radiologic Sciences faculty) at all times. While in the clinic, the hair will be kept away from the face and off the collar to prevent hair from falling into patient’s wounds and from being a safety hazard. Hair adornments or accessories may not be worn in the clinic. Hair color shall be conservative, that is a color that is customary for human hair and not a decorative color such as blue, green, pink, orange, etc. Makeup may only be used discreetly; eye shadow, mascara and rouge shall be avoided. Male students will maintain a neat hairstyle consistent with good taste. Male students shall be clean-shaven or shall have neatly trimmed beards, mustaches, and sideburns. (OSHA Regulations 1910.1030) Male students growing beards/mustaches may do so over the break from clinic but may not do so while in clinic.

All fingernails shall be short, neat, and clean. Nail polish and/or acrylic nails are not acceptable in clinical education centers. Perfumes, colognes and any other fragrances may not be used in the clinical education center.

To the extent possible, tattoos or other body art will be covered while in the clinical setting.

Jewelry is limited to a watch, one (1) ring to include a wedding set, engagement ring or class ring, one (1) pair of small stud earrings in the ear lobe, which are not to hang below the ear lobe. No other piercing may be adorned with jewelry while in clinical education courses.

Personal cell phones and/or pagers may not be worn in the clinical education centers.

Phones may only be used for necessary personal business with permission of the clinical faculty.

Students may not chew gum, eat candy/mints or drink beverages while in the clinical setting.

The clinical instructors, individual hospitals and/or radiology departments may have dress codes/rules/regulations that supersede the above dress code.
**Dosimeters and Dosimetry Reports**

Students without personal dosimeters or without the appropriate personal dosimeter will not be allowed in the clinical education center for that day. Dosimeters are to be worn at the level of the collar outside of the lead aprons. Dosimeters will be exchanged every 3 months. New dosimeters will be made available to the students at least 3 days prior to the beginning of a new dosimeter cycle. Students are responsible for making the exchange. If they have picked up their new dosimeter but not returned the current dosimeter, they will be removed from clinical education until the badge is returned. If a dosimeter is not returned, the student will be charged $25.00 as our dosimeter provider charges for unreturned badges. A $25.00 replacement fee will be assessed for any lost or damaged dosimeter and the student will not be allowed in clinic until a replacement badge is available. Dosimeter reports are available in the departmental office.

The department receives a Dosimetry (Film Badge) report each quarter for the previous quarter. After review by the Radiation Safety Officer (RSO), the report will be made available in the departmental office. If any student exceeds more than 50 mRem for a given month, the RSO will meet with the student to try and determine what is causing the higher than expected dose. Corrective actions will be discussed with the student. If any student exceeds a dose of 100 mRem per month, the RSO will begin a formal process of determining why the dose is unacceptable high, why it happened, and how to prevent it from happening again. The meeting(s) with the student in question and the finding from the RSO will be documented in the student’s permanent record. If at any time it is deemed by the RSO that a student’s exposure is too high, that student will be removed from clinic and appropriate action will be taken.

**Identification**

Students are required to wear appropriate identification in the clinical education centers at all times. Proper identification includes a regulation name badge and Department of Radiologic Sciences arm-patch. Students not having proper identification on the uniform will be removed from the clinical education center for the day and assessed an unexcused absence. In the event the nametag becomes defective or lost, the student must report this to the Clinical/Program Coordinator and a new badge must be ordered and proof shown to the Clinical/Program Coordinator the following day.

**Ascertaining Pregnancy Status of Patients**

Any time a student will examine a woman of childbearing years, the pregnancy status of the patient must be determined. Normally, the departmental procedure is followed. In the event a departmental procedure is not in place, the Ten Day Rule must be used. The rule states that the only time one can be relatively sure that a potentially pregnant patient is not pregnant is if the examination is performed in the first ten days of the menstrual cycle. Failure to ascertain pregnancy status is a violation of the Code of Professional
Conduct. In the event a student fails to ascertain the pregnancy status of a patient, the occurrence will be documented in their clinical handbook and if the occurrence happens again the student will be removed from clinic and will meet with the Program/Clinic Coordinator.

**Holding Patients for Examinations**

All efforts must be made to prevent anyone from holding a patient for an examination, however, students may hold patients but only if the following criteria are met:
- No restraint device is adequate
- No non-occupationally exposed individuals (family members, other health care professionals) are available
- The student is actively involved in the examination
- The student is under direct supervision of a recognized allied health professional. If a student must hold, proper shielding must be used

**Supervision of Students Policy**

Students may not participate in examinations on any patient unless supervised directly. Direct supervision is defined as having a registered or licensed allied health professional in the examination room the entire time the student is performing the examination.

**Clinical Assignments**

The faculty makes assignments to specific Clinical Education sites. Students are assigned based on the needs of the student and may be rotated from center to center as needed. The clinical faculty at the clinical education center will make specific assignments within each facility. These assignments are based on the student’s clinical needs during the course of their clinical education.

The normal clinical schedule is typically from 7-8 in the morning to 3-5 during weekday afternoons. Students will be required to report to clinic as early as 5:00 a.m. or stay as late as 7:00 a.m. the following morning, Monday through Sunday. These early/late/weekend assignments expose the student to procedures/situations not normally seen during the routine scheduled time. Students should make arrangements to fulfill all clinical hours that are assigned. Students will not be assigned more than forty hours per week, and no more than twelve (12) hours per day. Students are not permitted to enter clinical education centers at times other than scheduled clinical rotations without permission of the clinical faculty.

In the event that a student has been barred from all of the clinical sites by departmental administrators or their designate, that student will be removed from the Department of Radiologic Sciences as that student will have no opportunity to meet clinical requirements necessary for graduation.
**Clinical Attendance Policy**

Attendance is mandatory when a student is assigned to a clinical rotation/site. Student evaluations and/or objectives will reflect failure to attend clinic when scheduled, tardiness, removal from the clinic for lack of preparedness or dress code violations. In addition, for every tardy after the first, one (1) point will be subtracted from the final grade. The clinical faculty reserves the right to send students home. Students must call if they are planning to be absent from clinic. Clinical supervisors and department faculty will provide students with a telephone number where they can be reached. The student must continue to call until a clinical supervisor or faculty member is spoken to directly. If the student fails to call in as described, it will count as an additional tardy for that student.

Excused absences may be granted by the **Clinical Coordinator** for emergencies (i.e., death of an immediate family member, personal illness (documented by a physician) or legal proceedings (documentation required). Options for making up the missed clinical will include: unscheduled days, breaks, vacation, schedule alteration and other alternatives at the Clinic Coordinators discretion. **ALL EXCUSED ABSENCES MUST BE** approved by the program coordinator in order to not adversely affect the clinical education grade.

Unexcused absences will adversely affect a student’s grade in a course. Patterns of repeated unexcused absences may be considered unprofessional behavior under the Code of Professional Conduct and will be dealt with as such. For each unexcused absence, the student’s final grade will automatically be deducted two (2) points and for every unexcused tardy, the student’s final grade will automatically be deducted one (1) point. Unexcused absences will also be reflected in your weekly evaluation.

In the event a student is allowed to make up clinic time, options for consideration may include: unscheduled days, breaks, vacation, schedule alteration and other alternatives at the Clinic Coordinator’s discretion.

Under certain circumstances, absences for special activities may be approved by the **Clinical Coordinator**.

If you are absent **without notice** for two (2) consecutive days you will be considered as having dropped the class and the department will submit a grade of W or WF.

In the event of four (4) or more absences during a clinical assignment (excused or unexcused), a conference will be scheduled for the student with the **Clinical Coordinator** to discuss remedial action. Time options for remedial work will include: unscheduled days, breaks, vacation, schedule alteration and other alternatives at the **Clinical Coordinator**’s discretion. Failure to make up missed time will result in an “I” (incomplete) for that clinical education course and would need to be resolved by midterm of the following semester or a grade of “F” will be issued.
Clinical Attendance Documentation

All students are required to document their clinical time. This documentation is achieved by punching in and out on the time clock supplied, or by signed in and out on time sheets supplied and having the time initialed by the preceptor or their designee. If clinic time is not documented, the student will be considered absent that day and the final grade will be reduced accordingly. If a student fails to clock in or clock out (or have their time documented), they will be considered “tardy” and the final grade will be reduced accordingly.

Returning to Clinic after an Illness

If a student misses more than two (2) consecutive days from clinic, the student must have a doctor’s excuse in order to return to clinic (unless prior arrangements have been made with clinical faculty).

Altering Clinical Schedules Due to Conflicts

A student’s clinical schedule may be modified slightly due to conflicts with other required courses if the following criteria are met:

- The conflict course is a degree requirement for Department of Radiologic Sciences
- Not offered at night
- Is a Regents Class/Examination requirement

Scheduling accommodations are NOT made for work conflicts, daycare conflicts, etc. Students must make arrangements to be in attendance for clinical assignments during the required times.

Clinical Preparedness

Students are required to arrive at the clinical site prepared. The student must have some mechanism for taking notes, either electronically or on paper. Students should review the schedule on the previous day to be prepared cognitively for the cases to which they are assigned. Failure to be properly prepared will result in a written warning. Upon receiving the second and subsequent written warning, the student will be removed from the clinic that day and counted absent.

Continuing Education Units

When a student earns continuing education units by attending a local, state, or national professional meeting, they will be given extra credit in their clinical education course for the semester in which the credits were earned. The student’s final grade will be increased ½ percent (0.5%) for each CEU earned at a professional meeting up to a total of a 4%
increase in the grade. In order for the student to earn this extra credit, a CEU certificate for the meeting must be submitted to the clinical coordinator no later than the last day of the semester in which the CEUs are earned.

**Syllabus, Evaluation Forms**

Each student will receive a syllabus specific for that semester of clinical education. Evaluation forms will be included in the syllabus. Preceptors will also be provided the syllabus and appropriate forms each semester. These forms will be used in the clinical evaluation of students by the preceptors.
Policy Verification Form

I, ________________________________, verify that I have
(print name)
Read, understand, and am responsible for the departmental and
clinical policies put forth in this manual. (Radiologic Sciences
Department Manual) (Cardiovascular Interventional Science)
__________________________________.
(year)

__________________________________  ________________________
Student Signature                    Date