

**MA STEM
&
ACCELERATED DUAL DEGREE
SCIENCE/MATH STEM
EDUCATION CLINICAL
PRACTICE PROGRAM
HANDBOOK
2025-2026**

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INTRODUCTION

Clinical Practice (also identified as Clinical Residency) involves experience in teaching at a placement school. Teacher Candidates in the program (herein designated as TC) will be assigned to a placement secondary level (6-12) school per their subject area the latest by the month of August. Residency begins in Fall and continues till mid-summer of the next year. TC will be working with a collaborating teacher (designated as CT and also identified as a mentor teacher) and a supervisor. This document provides a description of the MA STEM program clinical practice, general information about the field followed by descriptions of roles, responsibilities and expectations by each TC, supervisor and CT respectively. Should you have further questions or seek additional information not presented in this document please contact the MA STEM program coordinator. Moreover, this document is specific to the MA STEM Clinical Practice experience however all policies and procedures compliment the College of Education Clinical Practice Handbook so this too should be used as a reference when needed

(see: https://education.rowan.edu/_docs/itpclinicalpracticehandbook82021final.pdf)

GENERAL MA STEM PROGRAM FIELD INFORMATION

MA STEM General Program Field Description: The MA STEM program clinical field practice constitutes teaching in a school setting for a full year clinical practice (two semesters + mid-summer) under the supervision and guidance of both a university supervisor and a local school district classroom teacher. MA STEM in Education TCs are placed in the same grade level classroom with the same collaborating teacher for the entire placement. Classroom experience includes serving one or more students with IEPs, students with 504s, and/or English Learners. In order to move forward into Clinical Practice, candidates should have already completed a minimum of 50 hours of “clinical experience” per state requirements. These hours should have been addressed in the pre-professional coursework i.e. STEM 60501 and STEM 60510.

Clinical Practice I Description (Fall experience): This starts in the Fall and is the first semester of the yearlong teacher residency required for candidates in the MA in STEM Education. Each TC is placed in a middle or high school and attends that placement 4 full days per week during the Fall semester. Using both Rowan and placement school district measures of teaching effectiveness, supervisors will evaluate TCs on demonstrated mastery of subject area content, lesson planning, and multiple instructional strategies to meet varied student needs and demonstrated ability to assess learner progress and modify instruction accordingly, manage all aspects of classroom activity, and work collaboratively with all instructional, administrative, parental, and community members of the classroom and school community.

Clinical Practice II Description (Spring experience): This is the second of the two field experiences required for candidates in the MA in STEM Education. Continuing in their field placement from STEM Education Residency I, candidates will attend their field placements 4 full days per week during the Spring semester. Using both Rowan and placement school district measures of teaching effectiveness, supervisors will evaluate residents on required demonstrated mastery of subject area content, lesson planning, and multiple instructional strategies to meet varied student needs and demonstrated ability to assess learner progress and modify instruction accordingly, manage all aspects of classroom activity, and work collaboratively with all instructional, administrative, parental, and community members of the classroom and school community. The course will run from January through June to enable candidates to engage in all end-of-year activities at their residency sites.

Clinical Practice Mid-Summer Description (Summer experience) : Since the MA STEM program requires that candidates complete a certain number of hours in their field experience across the full school year, candidates will continue to go to their field placement even after the Rowan academic spring term is over. They should end their field experience based on the last school day designated by their school placement calendar.

Total Program Field Hours Required: In order for candidates to successfully graduate from the MA STEM program, one of the program requirements is that all TCs cover the designated number of hours identified by the program. These hours not only meet the required hours designated by the state of New Jersey but go further beyond. This is intentional as the number of hours are intended to afford candidates further experience in the classroom to develop and hone their content knowledge and content knowledge pedagogy.

Please Note: According to NJDOE, the semester of full-time clinical practice semester must be a minimum of 12 weeks long. A program has the discretion to extend the full-time clinical practice placement beyond the minimum (see Reference: N.J.A.C. 6A:9A-4.4(c) Clinical components and candidate supervision for CEAS educator preparation programs.). Table 1 provides a breakdown of the **minimum number of hours** required in the field. Please note that these may change slightly pending yearly calendar and holidays.

Program Descriptive Overview

- **Clinical Practice I (September-December)** – Occurs during the first semester (Fall term) of the year-long placement:
 - **Grade level** 6-12
 - **Frequency of visits:** 4 days per week; following school placement calendar

- **Day of week:** Mondays –Thursdays except for Fridays
- **Hours/ day:** Required to cover 8 hours per day

- **Start week:** First day of school as designated by placement district
- **Clinical Practice II (January- May)** - Occurs during the second semester (Spring term) of the year-long placement:
 - **Grade level** – Same as Clinical Practice I
 - **Frequency of visits: 4 days** per week; following school placement calendar
 - **Day of the week:** Mondays –Thursdays except for Fridays
 - **Hours/ day:** Required to cover 8 hours per day
 - **Start week:** Return after winter break date of school as designated by placement district.
- **Clinical Practice Mid-Summer Field – (mid-May till mid-June)**
 - **Grade level** – Same as Clinical Practice I and II
 - **Frequency of visits: 4 days** per week; following school placement calendar
 - **Day of the week:** Mondays –Thursdays except for Fridays
 - **Hours/ day:** Required to cover 8 hours per day
 - **Start week:** Continue throughout all of May till end of placement school year.

Table 1: *Demonstrates program's minimum number of hours required in the field.*

SEMESTER	MONTH	DAYS/MONTH	HOURS/MONTH	TOTAL HOURS PER SEMESTER (<i>Sum of 8hours X total days</i>)
FALL	September	18	144	TOTAL FALL HOURS= 512
	October	16	128	
	November	20	160	
	December	10	80	
SPRING +	January	16	128	TOTAL SPRING HOURS= 768
	February	20	160	
	March	20	160	
	April	20	160	
	May	20	160	
SUMMER	June	10	80	TOTAL SUMMER HOURS= 80
TOTAL HOURS FOR MINIMUM COMPLETION OF MA STEM PROGRAM FIELD CLINICAL PRACTICE = 1360 HOURS				

- **Arrival and Departure Times for both Fall and Spring semesters:** Candidates will follow school calendar and mentor teacher's schedule, with additional time necessary to create and reflect on effective lessons and maintain appropriate student records. Furthermore, when able to, candidates are expected to participate in school services such as extracurricular activities (clubs etc..) and professional development (ex: in-services).
- **Completion of Field:** Candidates are to continue going to their field placement even after Clinical Practice II ends. However, they will not be supervised by a supervisor at that time as supervisors end their supervision at the end of the Spring term. Candidates field will be overseen by the STEM 60504 Professional Seminar course instructor at that time (i.e. mid-May till mid-June).
- **Requirements and Evaluation**
 - ***During Clinical Practice I***, TCs are evaluated by supervisors via **2 formal observations minimum + 1 formal observation by the CT**. Moreover, the final evaluation during this term (considered a midterm evaluation by the program) is performed in collaboration between supervisor and mentor teacher on TC performance thus far. The final evaluation is composed of completion of two major rubrics: 1) Danielson rubric for general teaching

performance and 2) Subject specific performance rubric pertaining to content are (designated as the SPA Addendum).

- ***During Clinical Practice II***, TCs are evaluated by supervisors via **5 formal observations minimum + 1 formal observation by the CT. In addition, to the Impact on Student Learning Assessment (See Appendix I)**. The final evaluations during this term are similar to the Fall term.
- ***For both Clinical Practice I and II***-All evaluations and formal observations are to be uploaded onto TK20 by the supervisor. TCs receive a final grade in their field placement at the end of each term. The final grade is based on supervisor and mentor teacher evaluations. and follows a Pass/No Credit grading policy (see :<https://sites.rowan.edu/registrar/services-resources/pnc-faqs.html>). TC's are required to meet all criteria listed on the evaluation tools by the end of the academic year.
- ***During Mid-Summer Field***, TCs are evaluated based on field related course assignments set by the STEM 60504 course instructor per instructor's requirements for successful course completion.
- **Subbing and/or Work for Pay at the school:** Please note that per state law, TCs are **NOT** permitted to work for pay at their designated placement school nor in the districts they are placed. Work for pay includes subbing for a teacher's absence at the school as well as taking over classes due to a teacher withdrawal and receiving reimbursement for the work done. If the administration at the school would like to have the TC step into a classroom other than the classes they are assigned to **but of the same subject area**; this can be made possible only with the approval from the program coordinator, department chair and office of clinical experience. However, the TC cannot be paid for teaching any classes but **will require an official employee-i.e. designated mentor from the school** to be in the classroom **at all times**. If there are any further inquiries regarding this policy please contact the MA STEM program coordinator. Also **as of September 1, 2021, students holding a substitute certificate may be able to work as a substitute teacher in a district on the days that they are NOT conducting their field work. As with the previous policy, interns are NOT allowed to use days where they are substituting for the district in lieu of a clinical placement assignment.**
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OVERVIEW OF TC, MENTOR TEACHER AND SUPERVISOR RESPONSIBILITIES

An Overview of Teacher Candidate Responsibilities

- Observation of and collaboration with the mentor teacher, teaching partial- and occasionally an entire lesson.
- Engaging in professional development opportunities
- Working with students in a variety of modalities; learning to plan and prepare lessons, units and assessments
- Seeking and implementing teaching responsibilities
- Gradually take the leadership role in planning and teaching ONE class while continuing to collaborate and co-teach with the collaborating teacher
- Engage in professional development opportunities
- Generally Required Responsibilities (as designated in the College of Education Clinical Practice Handbook):
 - Collaborate with the collaborating teacher, in-class aides, guidance personnel and the university supervisor
 - Observe instruction and teacher-student interactions in the assigned field-placement
 - Demonstrate appropriate instruction planning, implementation, assessment, and reflection in collaboration with the cooperating teacher [CT] – teaching a partial, and occasionally an entire lesson
 - Work with students in a variety of modalities and settings: whole group, small group, individual, tutoring
 - Gradually take a leadership role in planning and teaching classes while continuing to collaborate and co-teach with the CT.
 - Collaborate with school-based personnel: CT, in-class aides, guidance, administration, clerical, etc. and the US to facilitate the student learning experience.
 - Demonstrate skills and proficiencies identified in program outcomes, InTASC Standards, and CAEP Standard 1 as well as Rowan CED Professional Dispositions and NJDOE Code of Ethics.
 - Engage in professional development opportunities and [as possible] school functions
 - Complete surveys and forms in TK20

An Overview of School/ Collaborating Teacher Responsibilities:

- The collaborating teacher acts as a role model for the teacher candidate and introduces and shares all facets of the teaching experience.
- Provides both professional and moral support and help to candidate.
- Mentors teacher candidate in teaching-related content, pedagogy, and understandings relevant to classroom culture.
- Collaborating teacher throughout the experience must act as a role model and mentor where they share and discuss all facets of the teaching experience with specific detail to teacher candidate performance.
- Collaborating teacher affords teacher candidate access and use of school resources and classrooms (including all necessary technologies needed)
- Collaborating teacher allows candidate to teach one class throughout the term
- Supervises, evaluates and provides feedback to the teacher candidate and shares observations with the university supervisor.
- School resources and accessibility must be facilitated by the school with the guidance of the mentor teacher
- Generally Required Responsibilities (as designated in the College of Education Clinical Practice Handbook):
 - School must Provide a CT to serve as a mentor/coach for the candidate who will share the responsibility with the university supervisor for helping the candidate to acquire and demonstrate the knowledge and skills necessary to function as an effective classroom teacher.
 - The CT may act as an advisor, instructor, counselor, and confidant, regularly providing feedback to the candidate and supervisor on his/her progress
 - With consultation, the CT will allow the candidate to plan, implement, and assess instruction in limited ways during the beginning of the placement and later assess instruction, gradually assuming multiple classes/preparations.
 - **Once** during the Clinical Practice I and II (Fall and Spring) each the CT will formally observe the candidate teaching using the Danielson Framework for Teaching to document candidates' strengths and areas for improvement, contributing evidence as per CAEP Standard 2 of co-assessment.
 - Complete surveys and forms in TK20
 - CT will participate in the Rowan University's On-Line Mentor Cooperating Teacher Training **every three years** for updates/information/training.

An Overview of University Supervisor Responsibilities:

- Observes teacher candidate and monitors progress
- Meets with collaborating teacher and discusses teacher candidate's performance
- Supervises, evaluates and provides feedback to the teacher candidate
- Ensures that all formal assessments of teacher candidate are completed
- Generally Required Responsibilities (as designated in the College of Education Clinical Practice Handbook):

- The supervisor is the instructor of the clinical practice course for Rowan University and is charged with the overall responsibility of aiding the candidates in achieving the course goals and objectives, regularly monitoring/discussing the candidate's progress with the CT and the candidate.
- Visit each placement multiple times: a. to sign the MOA, b. to observe the teacher candidate during their instruction and provide feedback, c. to collaborate on the midterm and final evaluation with the CT and review results with the candidate.
- Ensure all required data are loaded into TK20
- Visit each placement multiple times throughout Clinical Practice 2: Discuss and Sign the MOA Observe the candidate at least 5 times and provide feedback; Collaborate/consult with the CT regarding the midterm and final evaluation [per CAEP Standard 2] and discuss with candidate; Ensure all forms and data are submitted in TK20; Ensure CT has access to TK20 and communicate all concerns with TK20 Office expediently.

ROLES, EXPECTATIONS AND RESPONSIBILITIES FOR TEACHER CANDIDATES

TCs in the MA in STEM Education program are designated placements through the Office of Field Experience. Upon entry into the program, coursework begins in June (for those on a CADP track coursework begins in Spring i.e. last semester of senior year in undergraduate program, prior to full residency) and continues, along with the residency, in September, concluding in June of the following year. TCs complete university coursework and a yearlong residency to fulfill requirements for the MA in STEM Education program, and NJ licensure requirements for a teaching certificate in K-12 Biology, Chemistry, Mathematics, Physics, Earth Science or Physical Science.

Meeting All Requirements Prior to Beginning Clinical Practice Experience

- **Benchmarks:** including GPA and Passing Praxis Core and Praxis II Exams need to be met
- **Mantoux TB Test**
 - Students who are in a school setting 20 or more hours per month must have a valid Mantoux test. A Mantoux test would be invalid if you have been out of a school setting over six (6) months. A copy of your Mantoux test should be taken with you to any school in which you are placed. A copy of your current Mantoux test must be filed with the student health center.
 - The Wellness Center (Student Health Center) located in Linden Hall (256-4333) offers the Mantoux Test on Monday thru Friday 9 a.m. to 5 p.m. There is a \$10.00 fee. You must return within 48-72 hours to have the results noted by a nurse. If you do not return, your test will not be valid because the time for interpretation cannot be more than 72 hours. You will then have to repeat the test with an additional cost of \$10.00.
 - If you choose not to use the Wellness Center, you may have the Mantoux Test done at your own doctor's office.
 - Students are responsible for keeping their Mantoux test results up to date. Upon the request of the school, students must provide a copy of a valid Mantoux test to the school to which they are assigned for any and all field placements.
- **Criminal History Background**
 - Many school districts are asking for candidates to be fingerprinted and have a criminal background check or hold a substitute teacher certification in order to be placed for any field experience. Any individual applying for a position in a public or private school in New Jersey will be required to undergo a criminal background check.
 - If a student is placed in a district that requires a criminal background check prior to the start of a field experience, the student will be notified of the procedure to follow.
 - Once notified, it becomes the student's responsibility to comply with the requirement within identified timeframes. **Failure to do so may result in a denial of placement and removal from the corresponding courses.**
- **District New Teacher Orientation:** All TCs placed must attend and participate in District-Level New Teacher Orientation sessions
- **District Pre-Planning Sessions:** All TCs placed must attend and participate in all District pre-planning sessions
- **School/ District Information:** Gather and study school, district, and teacher information. Should review and get samples of the following where possible:
 - **School/District handbooks/policies** regarding student discipline policies/procedures with copies of forms, letters, etc. and your guidelines for sending students to the principal and how these responsibilities will be shared, transferred, and returned to the teacher
 - **Health and safety information and procedures** for fire drill, lock down drills, evacuation, security, health emergency, medications, child abuse/neglect, and first aid
 - **Procedures/policies for communication** with parents/administration/others
 - **Assessment procedures**, sample forms, sample report cards and progress reports
 - **Allowable student contact/communication policies**
 - **Map of the school and location/room numbers of:** restrooms, media center, computer labs, teacher workrooms, classrooms, and specialty instruction areas
 - **Textbooks with teacher editions and curriculum guides** with NJ Core Curriculum Content Standards
 - **School, teaching, lunch and duty schedules**
 - **Faculty and staff roster** listing names, email addresses and position
 - **Class lists** (including student IEPs, 504s, special needs, health issues, etc.)
 - **Extracurricular opportunities**
 - **Professional development opportunities**
 - **Secure access to online gradebooks** used in the school as well as access to technologies/ equipment etc...

needed for your teaching purposes. You must inform your mentor teacher as they will facilitate this for you.

Requirements throughout Clinical Practice Experience

- Enact moves that support the primary goal of the placement: P-12 student achievement.
- Be on time as directed by the expectations of the school, CT, and supervisor.
- Video-record lessons daily once the first lesson has been taught.
- Dress professionally/appropriately for the setting.
- Fulfill written, video-recorded, and meeting obligations for CT, supervisor, and university as assigned. For example:
- Daily, observe the collaborating teacher and/or other teachers. If your supervisor does not assign an area of focus, you are to choose one area of focus for each observation.
- Meet with collaborating teacher and supervisor for pre/post observation conferences.
- Communicate with mentor **and** supervisor on a scheduled or daily basis. Issues/concerns **MUST** be reported to your supervisor **early on!**
- Participate in non-teaching school assignments, meetings, and/or other professional development and involvement.

Clinical Practice Experience Requirements Specific to Fall Term

- During the school's Fall semester, each TCs must be **assisting and co-teaching** alongside their mentor teacher for the majority of classes taught by the mentor teacher. **PLEASE SEE: Appendix A *The Collaborative Teaching Model: Stages of the Residency***
- TC's need to be proactive and seek accessibility to all resources and materials needed for teaching throughout the school year via their mentor teacher
- TC's need to ensure that they are communicating on a scheduled regular basis with both their mentor and supervisor
- TC's must provide all required information (ex: teaching schedules) to their supervisor
- Any issues/ concerns/ needs must be noted early on and mentor and supervisor need to be informed
- An MOU must be submitted early in term (by the end of the second week of start of term)
- Evaluations include a minimum of 3 formal observations (2 by supervisor; 1 by CT) + 1 the final Danielson general teaching practice evaluation + the final SPA addendum specific content practices evaluation. All must be done and submitted by end of term
- TC's must know and get acquainted with all school policies and procedures pertaining to their subject area and the grade level they are placed in. Must plan to begin to gradually take on **one class completely for the upcoming term (spring)**. This should be planned with the mentor teacher and supervisor
- **Generally Required Performances in Fall (as designated in College of Education Clinical Field Handbook):**
 - Observe instruction and teacher-student interactions in the assigned field-placement
 - Demonstrate appropriate instruction planning, implementation, assessment, and reflection in collaboration with the cooperating teacher [CT] – teaching a partial, and occasionally an entire lesson
 - Work with students in a variety of modalities and settings: whole group, small group, individual, tutoring
 - Complete surveys and forms in TK20

Clinical Practice Experience Requirements Specific to Spring Term

- During the school's Spring semester, each TC **must have one class** for the duration of the second half of the year for which he or she takes lead responsibility for planning, teaching, and assessing, with the mentor teacher serving primarily as resource and support. This is different from traditional student teaching in which the student teacher "takes over" a whole schedule for the semester. Candidates are to focus acutely on one class and continue to learn about planning and assessment (and teacher moves) by serving as co- planner/co-assessor/co-teacher with their CT in the other classes.
- For a minimum 2-week span during the Spring Semester, the TC will continue to assume responsibility (lead planning, assessment, and instruction) alongside their mentor teacher for ALL of the classes in the mentor's schedule. This means that co-teaching responsibility must continue for the rest of the classes **except for one class which the TC will be solely responsible for**. This one class will be the class that the TC will be the lead teacher for.
- Any issues/ concerns/ needs must be noted early on and mentor and supervisor need to be informed
- An MOU must be submitted early in term (by the end of the second week of start of Rowan term)
- Evaluations include a minimum of 6 formal observations (5 by supervisor; 1 by CT) + the final Danielson general teaching practice evaluation + the final SPA addendum specific content practices evaluation. All must be done and submitted by end of term
- TC's must continue to implement all school policies and procedures pertaining to their subject area

and the grade level they are placed in.

- **Generally Required Performances in Spring (as designated in College of Education Clinical Field Handbook):**
 - Gradually take a leadership role in planning and teaching classes while continuing to collaborate and co-teach with the CT.
 - Collaborate with school-based personnel: CT, in-class aides, guidance, administration, clerical, etc. and the US to facilitate the student learning experience.
 - Demonstrate skills and proficiencies identified in program outcomes, InTASC Standards, and CAEP Standard 1 as well as Rowan CED Professional Dispositions and NJDOE Code of Ethics.
 - Engage in professional development opportunities and [as possible] school functions
 - Complete surveys and forms in TK20

Assignments and Responsibilities to Think About and Discuss with Supervisors and Collaborating Teachers

- **Decide upon due dates for each as appropriate for your placement:** (*Suggested dates included in parentheses*)
 - Review College of Education MA STEM Clinical Practice Handbook (*Week 1*)
 - Review Charlotte Danielson Teacher Performance Evaluation Rubric --to be used for Midterm and Final (*Week 1 and throughout the semester!*)
- **Decide on what you will be using to show for your planning and teaching:**
 - Necessary tools:
 - Lesson Plans (*you can use the lesson plan format used by your collaborative teacher unless otherwise noted by your supervisor or methods instructor. Make sure you use lesson plan formats that are clear and represent well what your teaching demonstrates.*)
 - Suggested helpful tools:
 - Notebook (*Organize first week; maintain throughout the semester*)
 - Observation Write-ups (*maintain throughout the semester- optional*)
- **Be sure to work on the following to enhance your Clinical practice experience and to assist with specific indicators on your Midterm and Final Evaluations. Discuss with your collaborating teacher and Supervisor as appropriate.**
 - **Context:** Gather information on district, school, and students
 - **Evaluation:** Be wary of how you will be evaluated and ensure that you are meeting that criteria. If you are not clear about the criteria discuss with your supervisor and mentor teacher
 - **Assessments and Grading**
 - Grade Book/Electronic Grade Book?/Grading System
 - Method for sharing assessments with students and parents
 - **Role with Parents**
 - Involvement with and Contribution to School Events
 - Involvement with Community IEPs, ELLs, Personal Professional Development Plan (for Midterm Evaluation)

PLEASE NOTE: The start and end of your Clinical Practice follows your placement school academic calendar.

Submission of all Field Evaluations

- All performance assessments/ field evaluations will be submitted electronically by university supervisors and mentor teachers via Tk20. In addition, TC's will complete a capstone project as designated by program requirements .

Regarding Substitute Teaching

- TCs **may not substitute teach in the district in which they are placed during any field placements.** This includes the entire year of the placement.
- TCs may not miss school for any paying jobs, including substituting.

MA STEM Program Clinical Practice Timeframe

- Clinical practice (also known as residency) is 10 months in the school year (September-June), TC's follow the district calendar (including pre-planning, holidays, winter break, spring break, professional days, and end-of-year closing)
- Monday-Thursday – Teacher candidates are at school during normal school contract hours and as needed for planning, tutoring and other after-school activities, meetings, parent conferences, and open houses
- Fridays – Teacher candidates attend classes during Rowan's Fall and Spring semesters.
- During Rowan's winter-session, TCs report to their field placements on Fridays AND when there are Fridays where there are no classes at Rowan.

Completion of Clinical Practice Requires:

- Successful completion of 10-month residency
- Demonstrated competency in the skills, knowledge and dispositions required for teachers (as documented through observations and evaluations)
- Successful final evaluations, culminating in the University's recommendation for teacher certification (Certificate of Eligibility with Advanced Standing)
- Adherence to attendance and all other policies
- Professional and positive disposition
- **Generally Required Performances in Spring (as designated in College of Education Clinical Field Handbook):**
- Gradually take a leadership role in planning and teaching classes while continuing to collaborate and co-teach with the CT.
- Collaborate with school-based personnel: CT, in-class aides, guidance, administration, clerical, etc. and the US to facilitate the student learning experience.
- Demonstrate skills and proficiencies identified in program outcomes, InTASC Standards, and CAEP Standard 1 as well as Rowan CED Professional Dispositions and NJDOE Code of Ethics.
- Engage in professional development opportunities and [as possible] school functions
- Complete surveys and forms in TK20

MA STEM Clinical Practice Attendance Policy

- The TC has an obligation to be consistent and punctual in attendance for all school-related activities.
- The TC should arrive at the time designated by the CT and Principal. She/he **should remain at the school for the time duration as specified by the University Supervisor and CT**. Minimally, the program suggests that residents arrive approximately 15 minutes before the first bell and stay 15 minutes after the last bell if no other required school-based activities are scheduled.
- The TC is expected to be present for all assigned days in the schools. Absences related to illness, accidents or death in the immediate family will be excused **with documentation**. If a TC must miss days due to reasons cited, all work must be made up. The CT and University Supervisor will determine how the TC can make up the work. TCs may also be required to attend mandatory professional development training as designated by the University.
- The TC must attend all school-based meetings and professional development sessions.
- Should excused absences be too excessive and are too dire that do not allow the candidate to continue the field placement then that would lead to a withdrawal from the field for the term with continued activation of candidate's file for up to a year so that they may return and continue field hours once medically better.

PLEASE NOTE: If TCs are absent **more than 6 times** during the yearlong residency, **they may be removed from the placement**. This includes days for job interviews. **Partial absences will count as one absence.**

HELPFUL TIPS, ROLES, EXPECTATIONS AND RESPONSIBILITIES FOR COLLABORATING (MENTOR) TEACHERS

Each TC works closely with a Collaborating Teacher (CT) based on agreement between school, school district and the Rowan University College of Education Office of Field Experience for the full year of the residency.

Collaborating/ Mentor Teacher

Designated Collaborating Teachers (CTs) are experienced teachers dedicated to mastering their craft, promoting excellence in the teaching profession, and mentoring novice teachers. CTs receive a yearly stipend for their role as a skilled colleague. CTs support TCs by providing supportive environments in which Teacher Candidates develop the habits and skills of excellent teachers. Rowan University Collaborating Teachers provide this support by:

- **Co-teaching** with the TC from September to June of the placement school academic calendar Monday through Thursday and continuing the flow of the classes on Fridays when the TC is completing coursework at Rowan;
- **Mentoring** the TC in school-based culture, policies, and protocols;
- **Opening their classroom** to frequent visits by University professors and TC supervisor;
- Informally and formally **evaluating** the TC in collaboration with his or her supervisor;
- **Including project-developed integrated STEM activities** in his or her classroom;
- **Attending scheduled MA STEM program** orientation / conferences and any forwarded **professional development activities**.

Collaborating Teacher Qualifications

District faculty assigned to supervise teacher candidates shall (per NJAC 6A:9-10.3):

- Be approved by the principal and district office with input from Rowan;
- Have a minimum of three years of successful teaching experience, including one with the district;
- Possess a standard instructional certificate in the appropriate content area;
- Have appropriate certification that coincides with the area of instruction for which the candidate is being prepared; and
- Be a full-time district faculty member with demonstrated expertise in the field of mentoring/supervision. It is *preferred* but not an obligation that the CT holds a minimum of a Master Degree.

An Overview of School/ Collaborating Teacher Responsibilities:

- The collaborating teacher acts as a role model for the teacher candidate and introduces and shares all facets of the teaching experience.
- Provides both professional and moral support and help to candidates.
- Mentors teacher candidate in teaching-related content, pedagogy, and understandings relevant to classroom culture.
- Collaborating teachers throughout the experience must act as a role model and mentor where they share and discuss all facets of the teaching experience with specific detail to teacher candidate performance.
- Collaborating teacher affords teacher candidate access and use of school resources and classrooms
- Collaborating teacher allows candidate to teach one class throughout the term
- Supervises, evaluates and provides feedback to the teacher candidate and shares observations with the university supervisor.
- School resources and accessibility must be facilitated by the school with the guidance of the mentor teacher
- **Generally Required Responsibilities (as designated in the College of Education Clinical Practice Handbook):**
 - School must Provide a CT to serve as a mentor/coach for the candidate who will share the responsibility with the university supervisor for helping the candidate to acquire and demonstrate the knowledge and skills necessary to function as an effective classroom teacher.
 - The CT may act as an advisor, instructor, counselor, and confidant, regularly providing feedback to the candidate and supervisor on his/her progress
 - With consultation, the CT will allow the candidate to plan, implement, and assess instruction in limited ways during the beginning of the placement and later assess instruction, gradually assuming multiple classes/preparations.
 - **Once** during the Clinical Practice I and II (Fall and Spring) each the CT will formally observe the candidate teaching using the Danielson Framework for Teaching to document candidates' strengths and areas for improvement, contributing evidence as per CAEP Standard 2 of co-assessment.
 - Complete surveys and forms in TK20
 - CT will participate in the Rowan University's On-Line Mentor Cooperating Teacher Training **every three years** for updates/information/training.

Checklist in Preparation for the Initial Meeting with the Teacher Candidate

- Develop an agenda for your first meeting
 - Contact information
 - Goals, Expectations, Responsibilities (setting mutually agreed upon norms)
 - Feedback strategies and meeting times
 - District policies regarding allowable contact with students (DOs and DONTs)
 - Prepare materials that the teacher candidate will need to perform his/her responsibilities
 - Plan to assist in setting up observations with other teachers/administrators in your school
 - Ask the Teacher Candidate to provide a profile of his/her experiences
 - Previous teaching and field experiences (district, school, grade level, subject)
 - Courses taken in a particular area (e.g., child development, reading)
 - Strengths and skills that will help students learn
 - Candidate expectations
 - Previous work experience, hobbies and interests
 - Organize your classroom so that the teacher candidate has a work place similar to yours in location and area
 - Share pertinent student information such as IEPs, 504s or other special needs
 - Prepare the school community and your students for the arrival of the teacher candidate

Some Ideas on How to Best Support Your Teacher Candidate

Please know that the yearlong clinical practice is unlike semester-long student teaching.

- We do not expect Teacher Candidates to take over classes during the first (i.e. Fall) semester, but to observe, support, coteach, and lead short activities with your help.
- In late January or early February, Teacher Candidates begin to gradually take on the lead responsibility for teaching. At first, they should fully take on one class for which they are the lead teacher with you actively supporting or co-teaching. (This doesn't mean that they can't teach other classes but it means that they have this one class as their full responsibility).
- Please be aware that teacher candidates are graduate students and have much on their plate so fully loading them with teaching all your classes will impact their performance in their coursework and personal life. We recommend that only one class is fully given to them whereas other classes continue to be co-taught with you during the spring term. Putting a full load of teaching on them is not the best way to help support their development as novice teachers
- Please be aware that your insight and guidance is essential to their growth

As much as possible, try to share your thinking with your candidate.

- Plan with them, explaining how and why you make the curricular and instructional decisions you make.
- Explain how you responded in certain situations and why.
- You monitor students working, have your candidate by your side and explain what you are seeing and how you are thinking about it.

What are specific expectations – things that I SHOULD be doing with and for my candidate?

- **Facilitate access to learning management systems and online instructional platforms** (e.g., Google Classroom, Schoology, Zoom, etc.) for the purpose of instruction, observation, and assessment. This is required for their certification. If you are unable to secure this access for your candidate, contact your candidate's supervisor. Rowan will advocate for access with your school or district administration.
- **Ensure that your candidate follows the same work schedule and restrictions as you.** If you are expected to be physically at your school, so is the candidate; if you are teaching remotely from home, then your candidate is also working from home, etc.
- **Have your candidate attend meetings, faculty meetings, school meetings, parent meetings, and professional development.**
- **Meet daily with your candidate** to debrief lessons, discuss students, discuss other issues of teaching and learning, and
- **Meet weekly with your candidate** to set and monitor learning goals for them.
- **Discuss content (math or science) with your candidate.** Even though they have studied the content, there may be some topics that are new to them, or that they have not seen for several years. In addition, they know little about how students think about and see this content.

What are some things that my candidate CAN do?

- **Learn the curriculum.**
 - Do the math or science that students are expected to do and anticipate what mistakes or difficulties they might have.
 - Watch any videos that you make for your students or that you have your students watch.
 - Discuss lessons and units with you.

- **Learn how to use the school's electronic learning systems.**
- **Learn how to use online tools.** Research online resources and lessons. This time is a good opportunity for your intern to learn as much as possible about online resources for secondary math or science and online teaching tools. (We will be sharing some of these resources and tools in their methods classes.)
- **Look at student work** on their own or with you. Discuss what they see and notice.
- **Assist in logistical tasks.**
 - Preparing materials for lessons and students.
 - Take attendance.
 - Grade student work.
 - Logging student participation.
- **Assist individual students or small groups**
 - During independent or group work time.
 - During extra help time.
- **Lead small activities, lessons or portions of lessons**
 - Although we do not expect the intern to take over during the fall, we do encourage you to include them in leading instruction in whatever ways make the most sense. This can be in the form of them going over homework, leading a do-now or introductory activity, teaching a lesson that they have observed first. We trust you and your intern to figure out what works best.
- **Help plan and enact online instruction if need be.**

Regarding Candidate's Interactions with students and families:

- **What are my candidates NOT ALLOWED to do:**
 - **Be the only teacher physically in a room with students.** (They are not yet certified and are not acting as a substitute. If your intern is instructing students face to face, you, or another certified teacher, need to be physically present.)
 - **Be the only teacher overseeing a virtual classroom.** (They are not yet certified and are not acting as a substitute. If your intern is instructing students in an online environment, you, or another certified teacher, need to be monitoring that class meeting.)
 - **Meet with students or parents in any environment other than the school or a school-approved online platform,** which the mentor can monitor.
- **What are my candidates ALLOWED to do:**
 - **Lead a small-group discussion or lesson** in a classroom or electronic breakout room.
 - **Lead a whole-class discussion or lesson** in a classroom or electronic breakout room.
 - **Provide extra help to a student** virtually or face-to-face (where appropriate).

Observations and Evaluations:

TCs are supposed to be formally observed three times during the fall semester (once by you and twice by their supervisor), starting in October. These observations are fairly low stakes. Given the extraordinary nature of this semester, these observations may take a number of forms (e.g., the supervisor observing an online lesson, observing the TC planning and rehearsing a lesson, observing TC work with a small group, analyzing student work with a TC). We are able to be quite flexible in what and how we observe. When the supervisor does observe, they will be in touch with you (the CT) beforehand to discuss what makes the most sense to do for an observation. Candidates are then observed a minimum of 6 (once by you and 5 times by their supervisor) formal observations during the spring which is more high stakes for the candidates. Final evaluations (both Danielson rubric and their subject specific, SPA Addendum, rubric) are completed at the end of each term in collaboration with the supervisor who will complete the rubrics and upload on TK20/ All evaluations including observation reports are completed and submitted on TK20

Subbing and/or Work for Pay at the school:

Please note that per state law, TCs are NOT permitted to work for pay at their designated placement school nor in the districts they are placed. Work for pay includes subbing for a teacher's absence at the school as well as taking over classes due to a teacher withdrawal and receiving reimbursement for the work done. If the administration at the school would like to have the TC step into a classroom other than those they are assigned to but of the same subject area; this can be made possible only with the approval from the program coordinator, department chair and office of clinical experience. However, the TC cannot be paid for teaching any classes but will require an official employee-i.e. designated mentor from the school to be in the classroom at all times. This way TC can help the school address its temporary needs but will also be abiding by state policies. If there are any further inquiries regarding this policy please contact the MA STEM program coordinator.

Navigating and Accessing TK20

1. Accessing tk20, the Rowan Online Assessment System. You should receive an e-mail earlier in the semester from the office of Clinical Experiences (OCE) or tk20@rowan.edu that provides you with instructions about how to log on, as well as a password. If you no longer have access or can't find that e-mail, you can simply e-mail tk20@rowan.edu and oce@rowan.edu, and explain that you are a cooperating teacher for a Student teacher from Rowan and you need the e-mail that explains how to access tk20.
2. Once you access tk20 you need to sign the Memorandum of Agreement (MOA).
3. You should look at the supervisor's final evaluation and the SPA (subject specific) evaluation at end of each term since you will see these once at end of the Fall term and once at end of the Spring term. If you agree with the evaluations, you should sign off on it (by clicking the green Submit button on TK20) . If not, you should communicate with the supervisor and come to a consensus on the evaluation.

4. You also should submit ONE formal observation. This observation can be one that you do with the supervisor. You and the supervisor can submit the same observation report, with a short description at the beginning that explains that you did it together. If you have questions about this you can ask the supervisor. If you are having any difficulties, feel free to contact the program coordinator Dr. Issam Abi-El-Mona (abi-el-mona@rowan.edu)

Finally, communication:

As methods instructors and supervisors we will try to be in regular contact. If you have any questions or issues with individual interns, or questions about what your role or that of the intern or supervisor is, please let us know as soon as they arise. We are here to support you and our candidates.

HELPFUL TIPS, ROLES, EXPECTATIONS AND RESPONSIBILITIES FOR SUPERVISORS

The Supervisor

The University assigns a Supervisor to observe, evaluate, and coach the TCs. The Supervisor works very closely with the collaborating teacher, sharing observations, input, and responsibility for the TC's growth.

Supervisor Qualifications

- Must have taught for at least three years in a public-school setting in the same content area as the teacher resident.
- Must have earned a valid teaching certificate in the same content area as the teacher resident. It is understood that the supervisor might be a retired teacher whose certification was issued from another state or has expired.
- Must be available to visit eight times during a semester and be available to candidates, collaborating teachers, and university in case of emergency.

An Overview of University Supervisor Responsibilities:

- Observes teacher candidate and monitors progress
- Meets with collaborating teacher and discusses teacher candidate's performance
- Supervises, evaluates and provides feedback to the teacher candidate
- Ensures that all formal assessments of teacher candidate are completed
- Generally Required Responsibilities (as designated in the College of Education Clinical Practice Handbook):
 - The supervisor is the instructor of the clinical practice course for Rowan University and is charged with the overall responsibility of aiding the candidates in achieving the course goals and objectives, regularly monitoring/discussing the candidate's progress with the CT and the candidate.
 - Visit each placement multiple times: a. to sign the MOA, b. to observe the teacher candidate during their instruction and provide feedback, c. to collaborate on the midterm and final evaluation with the CT and review results with the candidate.
 - Ensure all required data are loaded into TK20
 - Visit each placement multiple times throughout Clinical Practice 2: Discuss and Sign the MOA Observe the candidate at least 5 times and provide feedback; Collaborate/consult with the CT regarding the midterm and final evaluation [per CAEP Standard 2] and discuss with candidate; Ensure all forms and data are submitted in TK20; Ensure CT has access to TK20 and communicate all concerns with TK20 Office expediently.

Meetings, Observations, and Evaluations

During Rowan's Fall semester, the Supervisor:

- checks in *weekly* with the TC and CT
- completes 3-4 informal (written but not posted in Tk20) observations and
- completes 2 formal observations (separate from the 5 formal to be done in Spring)
- completes 1 Clinical Practice Midterm Evaluation (Danielson with SPA Addendum (Math or Science)). This document will serve as the Benchmark for the TC's work in the Spring. This will be submitted through Tk20.

During Rowan's Winter session:

- The TC works exclusively with the CT in the classroom and creates a Professional Development Plan (if needed) in response to the baseline Clinical Practice Midterm Evaluation with SPA Addendum.
- The Supervisor does not reassume responsibilities until Rowan's Spring semester begins.

During Rowan's Spring semester, the Supervisor:

- checks in *weekly* with the TC and CT
- completes a minimum of 5 formal observations (including pre- and post- conferences) in Tk20
- completes 1 Clinical Practice Final Evaluation (Danielson with SPA Addendum (Math or Science) in Tk20
- By May 20th:
 - approves (informally via an email to the TC and Program Coordinator) recommendation for certification OR
 - agrees to complete 1-2 additional observations (up to the placement's last day of school) if the TC has not yet met field requirements for certification

From the end of Rowan's Spring Semester through the placement's last day of school, the Supervisor:

- checks in weekly to ensure that a candidate who has successfully completed certification requirements has continued to fulfill all responsibilities OR
- completes 1-2 additional observations as needed.

PLEASE NOTE: Throughout the clinical practice experience, Supervisors and CTs will meet on a regular basis to discuss progress and needs of the TC and plan and provide support and activities to meet those needs.

Supervisor Observation

- Undergoing observations of candidate performance in the classroom are the main sources of evaluation of candidate performance so observations must be performed meticulously such that before and after observing, the supervisor can point out certain aspects of candidate's performance that are strong and those that need improvement. As a result, pre and post observation conferences are essential. To get an understanding of how an observation can be done see Appendix C. Moreover, the series of observations done should give an indication to the supervisor where the candidate still needs to improve and whether or not they are progressing and developing towards meeting the required criteria on the Danielson and SPA rubrics. Below follow some suggestions for doing pre and post observation conferences. Pre and post conferences can occur via videoconferencing via (Skype, FaceTime, ZOOM , WebEx), phone or face to face. It is recommended that post-conferences occur immediately after the observation. It is also mandatory that all formal observations be in person at the site unless specific circumstances (such as pandemic issues) emerge such that all teaching is being done virtually. In that case alone the observation can be virtual.

***Suggestions for Pre-Observation Conference:**

- Review plans for the lesson
- Discuss Objectives and how they relate to students
- Discuss relationship to previous lessons or connection with candidate's prior experiences
- Discuss activities students will complete during the lesson
- Discuss candidate's behavioral expectations from students
- Discuss assessment of student learning
- Promote and provide ideas to prepare candidate to accommodate individual differences
- Discuss how candidate will determine student follow-up after lesson
- Point out concerns about the lesson
- Establish a particular focus during the observation

***Suggestions for Post-Observation Conference – Should include the CT when at all possible**

- What was/were your learning goal(s) for today's lesson?
- Did all of your students meet or exceed the goal? How do you know? (What evidence do you have?)
- What supported the students who met the goal?
- What supported the students who exceeded the goal?
- What got in the way for students who did not meet the goal?
- What will you do tomorrow (or very soon) to help these students meet the goal and others extend their understanding? Why?
- If you were to teach this lesson again, what would you repeat; what would you change? Why?
- What have you learned about teaching from this lesson?
- What have you learned about your students from this lesson?
- What have you learned about yourself from this lesson?
- Is there anything in particular you would like to focus on the next time I observe?

Navigating and Accessing TK20

- Receive your Banner Account access (upon hiring-receive from Dean's office) – MAKE SURE YOU ARE ABLE TO ACCESS
- Attend obligatory training requested- Assistant Dean's office will send you time and registration link usually via e-mail.
- At Start of term you will receive TK20 Account access (from TK20 – Assistant dean's office) via an e-mail- use your Rowan e-mail only! MAKE SURE YOU ARE ABLE TO ACCESS the account. If not then contact the assistant dean's office and let Dr. Issam Abi-El-Mona (abi-el-mona@rowan.edu) know.
- Once you have access, check that all your supervisees are listed
- Contact your student teachers – get to know them
- Attend Meet and Greet and Supervisor meetings throughout term

**Modified lists from Brerman, S. (1995) Guiding and Assessing Teacher Effectiveness: A Handbook for Kentucky Teacher Internship Program Participants. The University of Kentucky.*

CLINICAL PRACTICE DISCONTINUANCY

The Teacher Candidate may be discontinued upon request of the teacher resident, the school district or the College of Education at Rowan University. In the event that this should happen, the following procedures will be followed.

(Please visit the COE Policies and Procedures website:

<https://education.rowan.edu/about-the-college/policiesandprocedures2/index.html>

1. As soon as the university supervisor becomes aware of a problem he/she will initiate an on-site conference with the candidate and collaborating teacher. The building administrator and/or program coordinator may be included.
2. The problem will be defined and a Ten Day written remedial plan with a timeline will be developed in consultation with the candidate, collaborating teacher, and supervisor. The university supervisor will keep anecdotal records of progress or thereof.
3. If the problem cannot be remediated within 10 working days, a meeting will be held at the University with the supervisor, teacher candidate, and the department chair. The Office of Field Experiences Director or designee might also attend. The supervisor will bring the following documents to the meeting:
 - a) the previous remediation plan with an explanation of why it was not successful
 - b) all supervisor's observations, evaluations, and records
 - c) all collaborating teacher and district input
4. After reviewing all pertinent data and following a discussion of this data as well as other pertinent information with attendees, this group, in item 3 above, will make a recommendation for discontinuance of the placement for the balance of the semester. Replacement can occur when requirements for successful placement have been met. The department will assume responsibility for monitoring candidate progress toward completion of the requirements for successful replacement
5. The department chair or co-chair, in consultation with the supervisor, will complete the Discontinuance of Clinical Practice form, make copies for the candidate, supervisor and department, and forward the original to the Office of Field Experiences (OFE). If replacement of the candidate is to occur, the department will arrange for a consultation with the Office of Field Experiences Director to ensure that OFE plans collaboratively with the department and the student to effect a successful replacement.
6. **Discontinuance by Partner School/District** At any time before or during clinical practice, the school district can direct the University to remove a resident from his/her assignment. For example, in an interview or meeting prior to the assignment, the district may determine that the teacher candidate would not make a positive contribution to the educational system in the district; or during the assignment, school authorities may feel that the teacher candidate is not living up to the responsibilities they expect. In either case, or for instances not specified, the University will comply with the district's request to remove a teacher candidate from a particular assignment. In several situations, the New Jersey Commissioner of Education has ruled that pre-service teaching is a privilege extended by local school districts to colleges and their students. Emphasis is placed on the fact that it is a privilege rather than a right for Rowan University students to be accommodated by a school for their clinical practice assignments. This privilege can be terminated at any time by the school district.
7. **Discontinuance by Rowan University** The authority of the University may also terminate clinical practice assignments. The College of Education, through the approved program of teacher certification, is entrusted with the responsibility to recommend for certification only those individuals who can show that they possess the competencies necessary for becoming a successful teacher. Pursuant to this obligation, university supervisors must make assessments concerning a teacher candidate's competence in the field through evaluative visits. If, during the clinical practice period, in the professional judgment of the University supervisor, and in consultation with the collaborating teacher, it is concluded that the teacher candidate does not demonstrate the appropriate knowledge, skills, and dispositions for becoming a successful teacher, the resident may be removed from the assignment. In addition, failure to comply with any College of Education regulations concerning clinical practice as stated in this handbook may be cause for termination of the assignment.
8. **Procedures to be Followed Regarding Discontinuance of Clinical Practice** In the event that immediate discontinuance is requested by the school district or if the University has determined that continuation of clinical practice for even a short period would be harmful to the students, school district or University, the teacher candidate will immediately be removed from the assignment with a follow-up meeting at the University within three (3) working days. It is required that the same procedure be followed should a candidate decide to discontinue.
9. **Discontinuance up to Mid-Semester** If discontinuance is to occur and reassignment for the current semester is not recommended, the teacher candidate will initiate and sign a "Withdrawal from Course Request" form, available from the Registrar's Office. Upon receipt of this form, the Registrar will enter a "W" on the student's transcript. The withdraw notation of "W" is not a grade.
10. **Discontinuance after Mid-Semester** Candidates' requests for withdrawals after mid-semester are considered exceptional and are only granted for sufficient reasons beyond the candidates' control. The withdrawal process will follow the policies and procedures of the University as outlined in the Student Handbook. A withdrawal after mid-semester will result in the notation of "WP" (withdrawal with passing academic standards) or "WF" (withdrawal with academic failure). The notation of "WP" or "WF", although not considered a grade, will be entered on the resident's transcript.

11. **Reapplication for Clinical Practice** The candidate may reapply for clinical practice within three semesters after all suggestions for remediation have been met. The application must be presented to the STEAM² Education Department by the third semester after withdrawal. With permission from his/her department, the candidate will reenroll in clinical practice and pay all tuition and fees as listed.
12. **Discontinuance by Teacher Candidate** The teacher candidate may discontinue clinical practice for reasons of serious illness or other extenuating circumstance. Candidates must follow the same procedure as if the University were discontinuing clinical practice.

PLEASE NOTE: Discontinuances will affect student loan status. Candidates are urged to consult with financial aid.

FREQUENTLY ASKED QUESTIONS

Q: Which calendar do I follow?

A: Follow the collaborating teacher's calendar for the entire placement.

Q: What happens if a candidate is sick or has a transportation emergency?

A: TC should contact the supervisor and collaborating teacher the night before, if possible, or as early as possible the day that TC is calling out.

Q: Who gives the final grade to the resident?

A: The Rowan supervisor assigns the final grade with input from the collaborating teacher.

Q: Where might we collect evidence of meeting BASIC expectations?

A: Evidence could come from:

- Lesson and unit plans
- Classroom observations
- Resident-made materials and notebook
- Samples of technology created/used for instruction or communication with parents
- Assessment data
- Samples of student work
- Notes from observations, conversations, interviews, and research
- Reflective journals

Q: What might evidence of collaboration, community and partnerships look like?

A: Working with collaborating teachers, residents might:

- Write letters to families (e.g., introductions, new units, explanations of instruction, suggestions for family activities to support instruction)
- Send home weekly newsletters
- Make phone calls (Keep a detailed log!)
- Establish and maintain a website for families
- Implement dialogue journals with families
- Attend after-school functions
- Participate in family (Math, Literacy, Science, etc.) nights
- Invite guest speakers
- Hold family visitation days
- Bring families into classes as resources
- Integrate community resources into lessons

APPENIDX A

The Collaborative Teaching Model: Stages of the Residency

The MA in STEM Education is framed around three stages designed to serve as a model of the collaborative relationship between the TC and the CT. While the length and structure of each stage will vary, all are important to the success of the residency. The duration of each stage is dependent upon a satisfactory evaluation by the Supervisor (with continuous input from the CT).

I. Early Observation [September]

- The TC is introduced to the class as a co-teacher, not a student teacher.**
- The TC establishes relationships with the students, becoming familiar with student needs, interests, and profiles.
- The TC observes and assists the CT in modeling effective lessons, including differentiated instruction.
- The TC observes and assists in classroom management procedures.
- The CT leads pre- and post-lesson conferences with the TC to evaluate, reflect, answer questions and plan for future lessons.
- The TC observes methods in which the CT collects and records student data to implement data-informed decision-making.
- The CT introduces the TC to the school culture and the resources available to support academic achievement of diverse learners.

** The CT begins to establish the TC as the co-teacher from the *beginning* of the residency.

The CT conducts informal and formal (written – using the Classroom Observation Process forms) observations along with the Supervisor, conducts formal observations of the TR and provides feedback, according to the University’s established timelines.

II. Collaborative Teaching [October-January]

- The TC begins to use relationships with students and understanding of student profiles to facilitate all classroom activities.
- The TC and the CT will work together as a team, co-planning and co-teaching effective lesson, including differentiated instruction. (The TC and the CT may vary the lead teacher role giving both CT and TC opportunities to demonstrate effective teaching practices.)
- The TC begins to implement and practice consistency in classroom management procedures.
- CT and TC co-facilitate pre- and post-lesson conferences to evaluate, reflect, answer questions and plan for future lessons.
- The TC and the CT jointly collect and record student data to implement data-informed decision-making.
- The TC begins to utilize the school culture and the resources available to support academic achievement of diverse learners. The CT, along with the Supervisor, conducts formal observations of the TC and provides feedback, according to the University’s established timelines. It is recommended that near the middle or end of this part of the experience, the TC teach full lessons as a lead teacher in the class if and only if the CT and supervisor deem them ready.

III. TC as Lead Teacher: Full Responsibility for Teaching ONE Class in the Collaborative Model [Second/Spring semester]

**

- The TC builds on established relationships with the students and understanding of student profiles to facilitate all classroom activities – FOR ONE CLASS. If the Supervisor and CT agree that the TC is ready to take on additional classes, then the TC will assume new duties.
- The TC plans and teaches effective teaching practices, including differentiated instruction.
- The TC maintains consistent classroom management procedures.
- The TC leads post-lesson conferences to evaluate, reflect, answer questions and plan for future lessons.
- The TC collects and records student data to implement data-informed decision-making.
- The TC utilizes the school culture and the resources available to support academic achievement of diverse learners.

** The CT may provide support as needed in all of the above steps.

Addressing Concerns

- If progress is not satisfactory, the CT should discuss the specifics of the concern with the TC and the Supervisor as soon as the situation becomes apparent; document all discussions.
- The CT and TC should work together to develop strategies to overcome the problem.
- In consultation with the TC and the University Supervisor, decide upon a course of action.
- Invite the assistance of the MA STEM Program Coordinator, if CT or supervisor feels it would be helpful and/or necessary.

APPENDIX B

Focused Mentoring Themed Questions

The following themed questions are for guiding teacher candidates in their approach to best practices in teaching during their full clinical practice year.

August/September

THEME 1 Beginning of The Year Structures/ Effective Classroom Environments

- What routines have I established for starting a class? Ending class? Transitioning? Bathroom? Etc...
- What record -keeping procedures must be in place?
- Is there a way to manage my time more effectively?

THEME 2: School-Based Resources- Personnel and Non-Personnel Resources

- Who is available to support teaching and psychosocial development in the school and the community?
- What programs – school-based and community -based – are available to students?
- What facilities/ materials are available?

THEME 3: Creating a Class Profile

- What instructional data/ information do I have for the students in my classroom?
- What Key assessments can I use to determine instructional baselines?
- What instructional groupings will I create to support instruction?
- Are there students with IEPs, ELLs or other special populations?

October/November

THEME 1-Revisiting Classroom Environment

- Does my classroom reflect and promote student learning?
- How am I managing instructional time? Is my pacing effective?
- Are students respectful to me and of their classmates?
- Do students have the opportunity to take responsibility for themselves and for other students? Am I reinforcing positive behavior?

THEME 2- Lesson Planning

- What learning objectives have I identified and with which standards have I aligned my lesson?
- How have I differentiated my lesson to meet the needs of all my learners?
- What will I use as evidence of student learning?
- What components and sequencing will my lesson entail?
- How will I conclude the lesson?

THEME 3 Working with Families

- What communication will I have with families?
- What communication method will I use to start the school year?
- How will I maintain regular communication?
- How will I structure instructional conferences with families?

December/January

THEME 1- Understanding and Organizing Subject Matter- Taking the Long View of the Curriculum

- What units will be covered during the next three months?
- What key skill must be incorporated into learning experiences?

THEME 2- Engaging Students in Learning

- What strategies am I using to engage all learners?
- Am I cognizant of and accounting for the needs of all my students?

February/March/April

THEME 3- Assessing Student Learning

- What assessment strategies are in place for my students?
- Are these assessment strategies varied?
- Do I utilize both formative and summative information to guide my instructional plans?

May/June

THEME 3- Assessing My Effectiveness as a Teacher

- What teaching philosophy guides my practice?

- What standards guide my practice?
- Using those standards of practice, how would I characterize my teaching practice?
- Which are my areas of strength?
- Which are areas needing improvement?
- What evidence do I have for the assessment I have made?

APPENDIX C

Process of Classroom Observation Process and Things to Consider

This process has been adapted from the Woodrow Wilson Foundation observation process and is based on Danielson framework indicators for best teaching practices. Classroom observations conducted should focus on a small number of key aspects of good teaching. Given the amount of time available for an observation and the need to avoid unnecessary distraction in the K12 classroom, the observation process can be based on five items

A. Observing Teaching Residents in the Classroom: Core Components of Teaching

1. Student engagement and rigor of tasks students engage in during the lesson

Student engagement: the teacher involved all students in the lesson.

This item assesses the degree to which the teacher works to ensure that all students are actively involved in the lesson. Evidence includes actions such as encouraging students who are not volunteering to participate, or walking around the room and verbally engaging students as the teacher monitors progress of the class.

Student engagement: majority of students on task throughout the class.

Assesses the amount of time students in the class are engaged in or working on a specific task or activity. On-task behavior can include asking questions, being engaged in discussion, providing answers, turning in assigned class work in a timely manner, and assisting other students. Off-task behavior involves such things as students engaging in off- topic conversations, writing notes/text messages, putting their head on the table, or doing work for another class.

Rigor of tasks: intellectual rigor and challenging ideas keep students engaged.

This indicates degree to which the teacher goes beyond simply relaying information to supporting the deeper exploration of the subject matter. This can be seen in the quality of instructional tasks in which students are expected to engage and through individual conversations between the teacher and the students, by student questions to the instructor, or through the teacher's answers to student questions

Observers should note the extent to which the teacher's instructional strategies are effective in encouraging students to explore and be engaged in relevant mathematics or science concepts. Intellectual engagement can be seen through conversations students have with one another or with the teacher in small-group settings, or by the questions, contributions, and responses the students give in whole-class settings.

2. Assessment & Evidence of student learning during the lesson

Evidence of learning: assessing whether students are learning during this lesson.

This indicator captures evidence that students in the class are learning the content taught during the class. Specifically, students are able to explain/discuss what they are working on and why. ***Observers should make judgments about this indicator by focusing on K12 students and not on the teacher.*** In addition, observers should be wary if whether or not the teacher resident initiates students' prior concepts through engagement and uses these as a means to develop the lesson.

Evidence of learning includes students expressing their knowledge and understanding of the topic through academic writing and/or explanations that employ academic language; demonstrating how well they understand lesson content and their progress toward learning goals through their work as well as through responses to teacher questions, discussion in small groups, and other participation in the class that includes evidence for learning. Students self-assess whether they have achieved the lesson objective and provide feedback to the teacher, or that they monitor their own progress, identify their own errors and seek additional opportunities for practice.

Informal assessment: formative assessment to monitor the progress of all students.

These strategies might include formal assessments like quizzes, tests, or papers, as well as informal assessments through discussions with the class, with groups of students, and with individual students as well as teacher observations. Teacher activities might include walking around to look at the work of individual students or groups, or using questions to gauge student understanding.

Classroom observers looking for the effectiveness of these teacher strategies for monitoring student progress ***should also focus on how the teacher uses the information*** to inform his or her instruction. One consideration is how frequently the teacher used different ways to check for student understanding.

Differentiated instruction: quality learning opportunities for every student.

This aspect of instruction calls for teachers to respond to a learner's needs in order to maximize student growth and individual success through ongoing assessment and adjustment of instruction. Relevant strategies might include flexible grouping (and regrouping) of students, ensuring that all learners in the class have tasks that are equally interesting and equally engaging, so that each child feels challenged to understand, apply, and move on to the next learning stage. Effective differentiation includes providing authentic learning opportunities in the full range of intelligence or talent areas found in the class.

3. Classroom management: teacher strategies to enhance the classroom environment.

This indicator assesses the quality of the teacher's classroom management strategies, *again based on the engagement of students in learning and how they participate in the lesson* so that the teacher's management contributes to the students' learning. This includes setting clear behavioral expectations for students and making sure these expectations are met. Effective classroom management should be gauged by observing the students to see whether all students demonstrate a clear understanding of behavioral expectations and/or directions through their actions, and whether students execute transitions, routines and procedures in an orderly manner. In cases of inappropriate behavior that may occur during the course of the lesson, the observer should record the extent to which the teacher consistently and effectively deals with off-task and inappropriate behavior, adopts successful time management strategies, and utilizes behavioral modification strategies when needed.

4. Structures and routines to support learning: promoting understanding of important math or science concepts.

Classroom routines can positively affect students' academic performance as well as their behavior. Through these structures and routines, students have more opportunity to learn and teachers can devote more time to instruction. Routines also help to create smoother transitions between activities and allow fewer opportunities for disruptions or for the unproductive use of instructional time. Administrative routines might be things like storing coats or books, using the restroom, sharpening pencils, or making announcements. Instructional routines include getting every student's attention, involving them in learning tasks, ensuring appropriate behavior during instructional time, and perhaps having a process for handing in or returning student work. Other routines include knowing how to participate in discussions, asking questions, behaving as expected in groups, and following rules for getting the teacher's attention.

5. Teacher subject matter knowledge: promoting student learning by knowing the subject and how to teach it.

This item addresses how well the lesson structure allows students to make sense of important concepts, going beyond efforts to "cover" the intended content area, to promote deep conceptual understanding of the key ideas in the content area. Observers can look for evidence through the quality of questioning strategies, including those that demonstrate the teacher's knowledge of how students learn and understand the content area, the teacher's understanding of student mistakes and misconceptions, skillful facilitation of group discussions, and clear explanations of concepts.

B. Rowan University Classroom Teaching Observation Items

The observation items are embedded in an observation form that allows classroom observers to make notes and draw conclusions about the quality of teaching in each area. At Rowan, we will use the ratings from the Danielson 2013 *Framework for Teaching*. A general guide for rating TC performance is included in the Table 2 below.

Table 2. *Identifying Danielson performance levels*

OBSERVATION ITEM/ RATING	HOW IS THIS SEEN IN CANDIDATE PERFORMANCE?	KEY TRAITS THAT ARE INDICATORS
DISTINGUISHED	Teachers performing at the Distinguished level are master teachers and contribute to the field, both in and outside their school. Their classrooms operate at a qualitatively different level from those of other teachers. Such classrooms consist of a community of learners, with students highly motivated and engaged and assuming considerable responsibility for their own learning.	➤ Performance is consistently of very high quality at levels from a "master" teacher ➤ Classroom seems to run itself... "seamless" ➤ Students work as a community of learners w/high level of engagement, motivation, and considerable responsibility for their own learning
PROFICIENT	Teachers performing at the Proficient level clearly understand the concepts underlying the component and implements it well. Most experienced, capable teachers will regard themselves and be regarded by others as performing at this level. Teachers performing at the Proficient level have mastered the work of teaching while working to improve their practice.	➤ Performance is consistently of good quality- as expected of a proficient tenured teacher ➤ Know content, students, and curriculum ➤ Broad repertoire of strategies and activities ➤ Move easily to Plan B when needed

		➤ Possess a sophisticated understanding of classroom dynamics
BASIC	Teachers performing at the Basic Level appear to understand the concepts underlying the component and attempts to implement its elements. But implementation is sporadic, intermittent, or otherwise not entirely successful. Additional reading, discussion, visiting classrooms of other teachers, and experience (particularly supported by a mentor) will enable the teacher to become proficient in this area.	➤ Performance is minimally competent for teachers early in their careers - characteristic of those new to the profession ➤ Improvement is likely to occur with experience ➤ Implementation of activities may be rough or inconsistent
UNSATISFACTORY	Teachers performing at the Unsatisfactory Level appear to understand the concepts underlying the component. Working on the fundamental practices associated with the elements will enable the teacher to grow and develop in this area.	➤ Little to no evidence of understanding of content, students, and resources ➤ Poor recordkeeping and low ethical standards ➤ Rigid adherence to an instructional plan despite signs that revision is needed during instruction ➤ Teacher may display behaviors below minimal licensing standard such as a chaotic environment (or treating students with sarcasm or put down) ➤ Intervention is needed and a priority

An observer should not score an item unless there is specific evidence in the notes to support the judgment. For example, the notes might indicate, “student engagement is strong because all students were on task doing academic work, they participated or volunteered to participate in discussions, and their focused attention continued throughout the period of the lesson”. Each observation item is scored by circling the appropriate rating at the bottom of the form, under the box for comments. N/A should be used if the rating item was not relevant to the observed lesson. ***It does not mean that an item was not present during the class because the teacher overlooked or failed to be effective at it.*** For example, if students were not engaged in learning because the teacher was not able to manage the class, the observer would score ‘unsatisfactory for both engagement and classroom management.

C. Things to Keep in Mind: Overall rating for the observation:

- Rowan TCs are developing their skills as classroom teachers. No matter how they score on the classroom visit, all of them are expected to grow over time to become effective classroom teachers.
- Helpful observation ratings are those giving an honest assessment of what has been observed; that in turn, gives the TC a chance to get better where improvement is needed.
- To be **adequate** as an overall assessment, all eight items must be scored as *Basic* or *Proficient*.
- Scoring a teaching observation as **strong** is likely to be a rare event for a teacher candidate; at least six of the eight items must be *Proficient* or *Distinguished* for the overall teaching event to receive a **strong**.

D. Things to Consider: Making observations of the following

- **Teacher Subject Matter Knowledge:** The lesson structure allows students to make sense of important concepts, going beyond efforts to “cover” the intended content area, to promote deep conceptual understanding of the key ideas in the content area.
 - Observers will look for evidence that:
 - the candidate’s teaching demonstrates a depth of content knowledge with regard to important science or mathematics topics,
 - s/he presents science or math ideas and topics in a knowledgeable and effective manner, and
 - the lesson integrates this content knowledge with appropriate pedagogical strategies for promoting student learning.
 - Evidence includes actions such as:

- content-material accuracy,
 - questioning strategies that demonstrate the teacher's knowledge of:
 - how students learn
 - how students understand the content area,
 - student misconceptions and mistakes,
 - skillful facilitation of group discussions, and
 - clear explanation of concepts, knowledge, and skills.
- **Student Engagement & Rigor of Tasks students engage in during the lesson; Rigor and clarity of tasks: intellectual rigor and challenging ideas keep students engaged.** The teacher resident goes beyond simply relaying information to supporting the deeper exploration of the subject matter. Students are clear about the purpose and objectives of given tasks.
 - Evidence includes actions such as:
 - The quality of instructional tasks in which students are expected to engage,
 - The intellectual rigor and challenge of the tasks has the potential to keep students engaged in exploring and investigating concepts in a manner that leads them to deeper understanding of the material.
 - Directions for the task are clear.
 - Students have opportunities to clarify the task.
 - Lesson objectives are clearly defined and communicated. (Note that for problem solving, inquiry, discovery, and lab activities, the objectives/results should not be stated in advance of the activity. A whole-class debriefing/summarizing discussion should bring this out.)
 - During the lesson, it is made explicit to students why the content is important to learn. Teacher-to-student questions, contributions, and responses are varied and can be either one-on-one, in small-group settings, and/or in whole-class settings.
 - Student-to-student questions, contributions, and responses are varied and can be either one-on-one, in small-group settings, and/or in whole-class settings
 - Student-to-teacher questions, contributions, and responses are varied and can be either one-on-one, in small-group settings, and/or in whole-class settings.
- **Student Engagement & Rigor of Tasks students engage in during the lesson; the majority of students are on task throughout the class because the teacher involves all students in the lesson.** The teacher's instructional strategies are effective in encouraging students to explore and be engaged in relevant mathematics or science concepts. Also, the teacher maximizes the amount of time students in the class are engaged in specific, meaningful, content-rich tasks and activities. Students are on task throughout the class.
 - Evidence includes actions such as:
 - encouraging non-volunteers to participate,
 - encouraging students who dominate to give others the opportunity to participate,
 - facilitating student-student interaction,
 - checking in with hesitant learners
 - walking around the room to monitor and assessing student progress and understanding, and
 - verbally engaging students.
 - on-task behavior that can include:
 - working on assigned tasks
 - asking questions about the subject-matter being engaged in discussions about the subject-matter
 - providing answers
 - following established routines and procedures for transition points
 - grouping, and assisting other students
- **Assessment & Evidence of student learning during the lesson:** Students in the class are learning the content taught during the class. Specifically, students are able to explain/discuss what they are working on and why. ***Observers should make judgments about this indicator by focusing on K12 students and not on the teacher candidate***
 - Evidence of learning includes actions such as
 - students expressing their knowledge and understanding of the topic through academic writing and/or explanations that employ *academic language*;
 - students demonstrating how well they understand lesson content and their progress toward learning goals through their work,

- responses to teacher questions,
 - discussion in small groups, and
 - other participation in the class that includes evidence for learning.
 - students self-assess whether they have achieved the lesson objective and provide feedback to the teacher,
 - students monitor their own progress, identify their own errors and seek additional opportunities for practice.
- **Assessment & Evidence of student learning during the lesson: Assessing:** An effective teacher candidate uses knowledge gained from questioning and formative assessments to gauge what students know, the accuracy of their knowledge, and where they have made mistakes, and s/he adjusts during the lesson when formative assessment demonstrates that students did not understand. Observers should look for the effectiveness of teacher strategies for monitoring student progress *should also focus on how the teacher uses the information* to inform his or her instruction.
 - Evidence includes actions such as:
 - How frequently the teacher uses different ways to check for student understanding, including:
 - walking around to look at the work of individual students or groups, and
 - using questions to gauge student understanding.
 - How the teacher uses formative assessment effectively to monitor the progress of all students, through individual, small group, or whole class actions.
- **Assessment & Evidence of student learning during the lesson: Informal/ Formative assessment: formative assessments are used to monitor the progress of all students.** These strategies might include formal assessments like quizzes, tests, or papers, as well as informal assessments through discussions with the class, with groups of students, and with individual students as well as teacher observations. Teacher candidate activities might include for example pre-lesson questions that engage students in an observation at the beginning of the lesson as well as post lesson questions that monitor what students learned during the lesson.
- **Differentiated instruction:** Effective teacher residents respond to each learner's needs in order to maximize student growth and individual success through ongoing assessment and adjustment of instruction.
 - Evidence includes actions such as:
 - providing authentic learning opportunities and tasks for all students are equally interesting and equally engaging, so that each child feels challenged to understand, apply, and move on to the next learning stage;
 - observing the teacher resident working with the whole class, individuals, and small groups;
 - using lesson materials that are academically challenging for all students;
 - pacing of the lesson overall and for individual students in ways responsive to observable academic, emotional, social, and physical student needs;
 - monitoring the progress of individuals and small groups, allowing for extra time, or giving additional tasks to students who complete the general assignment more quickly than others;
 - flexible grouping and (re)grouping students for different tasks;
 - and ensuring that students who complete work ahead of others move to another task and are not left to themselves.
- **Classroom Management & Structures and Routines:** The teacher candidate plans for and facilitates a safe environment that enables all students to participate actively and appropriately in discussions and activities. The teacher resident's classroom management strategies create a classroom environment that:
 - is safe;
 - is relatively free of behavioral disruptions;
 - maximizes instructional time; and
 - communicates high expectations for behavior.
 - Evidence includes actions such as
 - Lessons and activities are designed and implemented in an organized and structured manner that supports student learning.
 - The amount of time available for instruction is maximized through time-saving routines for transitions and administrative tasks.
 - Students understand the routines and quickly and easily participate in learning activities and

transition between activities.

- Students are given opportunities to learning, practicing, and reinforcing routines;
- Students are given opportunities to learn, practice, and follow rules; and
- Students are given opportunities to learn and understand established consequences.

APPENDIX D

MA in STEM Education Professional Improvement Plan (PIP) Conference Form

The Professional Improvement Plan Conference is designed to improve a candidate's performance in the program as a result of reported concerns. During the conference, concerns will be discussed and a plan for improvement will be created on this form. This is different from the College of Education 10- day Plan as the due date for expected performance is flexible and assigned by parties involved. It is up to the supervisor and collaborative teacher's discretion to decide which plan to pursue based on the level of the concern.

Name of Teacher Resident:	Date Meeting held:
Name of Initiator of Conference:	Name of PIP Monitor:

Areas of Concern and Evidence	
Danielson Framework indicator that needs to be addressed	Description of Concern

Plan for Improvement and Evidence (feel free to use additional space if needed)	
Professional plan that needs to be addressed (indicate specific performance while identifying the objectives and/or goals resident needs to reach	Due date (identify the date by which resident needs to accomplish basic /proficient performance for the professional plan

PLEASE NOTE: Failure to meet any aspect of this plan by the given due date(s) will result in:

This plan has been reviewed and agreed to by the following:

Teacher Candidate:

(Printed Name)

Date:

(Signature)

Supervisor:

(Printed Name)

Date:

(Signature)

Improvement Plan Monitor:

(Printed Name)

Date:

(Signature)

Witness (must be affiliated professionally with the candidate):

(Printed Name)

Date:

(Signature)

NOTE: Once completed and signed, the original document must be provided to the program coordinator/ advisor for filing.

APPENDIX E

Remediation and Ten-Day Improvement Plans

In case of lack of performance during a residency term, candidates can be issued a Remediation plan or Ten-Day Improvement plan. The former is issued during clinical field 1 (i.e. first part of the full residency/ in fall term) and the latter during the second residency term (spring term). Both are more thoroughly discussed in the College Clinical Handbook (see: <https://education.rowan.edu/docs/itpclinicalpracticehandbook82021final.pdf>). The following are sample of old templates so please check updated ones with both the Office of Educational Support and Partnerships and the Office of Clinical Experiences in the College of Education

Prior to the initiation and implementation of a Ten-Day Plan the supervisor must discuss this with the Clinical Resident and Collaborating Teacher.

Start Date: _____ End Date: _____

Resident: _____ Cooperating Teacher: _____
(Print) (Print)

Supervisor: _____ School: _____ (Print) (Print)

This Ten-Day Plan is designed in collaboration by the university supervisor, collaborating teacher, and the teacher resident named above to improve his/her performance in the residency experience. The plan is intended to assist said resident in meeting standard(s)/ indicator(s) of the *Clinical Residency Teacher Resident Performance Evaluation Rubric*. All residents must meet expectations of all indicators prior to the end of the semester. The collaborating teacher will maintain a daily feedback log on the teacher resident's progress with each performance indicator of concern, review it with the teacher resident, and send that log via e-mail to the supervisor and teacher resident. An infraction of any aspect of this plan will require an eligibility meeting on campus with the resident,

The process complies with COE Policy IV.E Discontinuance of Clinical Residency Assignment paragraphs 1-3, found in the COE *Clinical Residency Handbook: A Guide for Teacher Residents, Cooperating Teachers and University Supervisors*.

supervisor, and department chair.

Ref. #	Performance Indicator(s) of Concern	Evidence of Improvement	Due Date

Comments:

This plan has been reviewed and agreed to by the following:

Teacher Candidate: _____ Date: _____
(Signature)

Collaborate Teacher: _____ Date: _____
(Signature)

University Supervisor: _____ Date: _____
(Signature)

This plan has been reviewed by;
The Student Progress Committee Chair: _____ Date: _____
(Signature)

The Department of STEAM Education Chair _____ Date: _____
(Signature)

**Sample of Performance and
Evidence for Ten-Day
Improvement
Plan**

The process complies with COE Policy IV.E Discontinuance of Clinical Practice Assignment paragraphs 1-3, found in the COE *Clinical Residency Handbook: A Guide for Teacher Residents, Cooperating Teachers and University Supervisors* https://education.rowan.edu/_docs/itpclinicalpracticehandbook82021final.pdf.

Ref. #	Performance Indicator(s) of Concern	Evidence of Improvement	Due Date
5. 1	Does not consistently provide expectations of behavior and does not follow through with appropriate consequences.	Students know exactly what behavior is expected. Teacher posted behavioral expectations on bulletin board. Teacher has appropriate set of consequences for misbehavior.	Daily as observed by collaborating teacher or University supervisor.
4. 1 5. 1	Classroom instruction lacks understanding of developmental differences in students' learning needs.	Uses appropriate instructional strategies to meet the needs of individual learners.	Daily as observed by collaborating teacher or University supervisor.
6. 5	Pace and flow of class instruction is too slow and permits too much nonproductive time.	Instruction shows smooth pacing and makes best use of teaching time.	Daily as demonstrated through instruction. Anecdotal records to be kept by collaborating teacher and University
8	Spoken and written English contains pronunciation and grammatical errors.	Models accurate spoken and written English.	Collaborating teacher and University supervisor.
8	Oral directions are given without the full attention of all students.	Develops effective listening strategies with students when listening for oral directions.	Daily as demonstrated through instruction. Anecdotal records to be kept by supervisor.
12.1	Does not address the needs of all students.	Demonstrates successful practices and techniques to address learners' needs.	Daily as demonstrated through instruction. Anecdotal records to be kept by collaborating teacher and University supervisor.
12.3	Does not consistently fulfill professional or other school responsibilities.	Meets all required school responsibilities including appropriate deadlines, written responsibilities, and assigned duties.	Daily as demonstrated through instruction. Anecdotal records to be kept by collaborating teacher and University supervisor.

MA in STEM Education Discontinuance Report¹

Student's Name _____ ID # _____ Today's date _____

Content Area _____ Quarter/Semester: Fall _____ Spring _____

University Supervisor _____ TOSD Candidate Yes _____ No _____

District School _____

Cooperating Teacher(s) _____ Contact Administrator (if applicable) _____

Date of Discontinuance _____ Education Advisor _____

Reason for Discontinuance (additional pages if needed):

Cooperating Teacher(s) agree(s) with the decision: YES _____ NO _____

Supporting documentation attached? YES _____ NO _____

Graduation Plans (for spring semester candidates): Walking _____ Not Walking _____ Other Graduation Plans: _____

ACTION PLAN²

_____ Clinical Practice is recommended to be repeated at: _____ current placement _____ new placement.

_____ Clinical Practice is NOT recommended to be repeated.

_____ Clinical Practice is recommended to be repeated after remediation. Recommendations for remediation and successful placement include the following:

Task/s to be completed by candidate: _____

Documentation to be provided of task completion: _____

(All documentation must be submitted to the Department Secretary, Department of STEAM Education) By (date): _____

Teacher Candidate Signature _____ Date _____

Supervisor's Signature _____ Date _____

Department Chair's Signature _____ Date _____

Director of Field Experiences _____ Date _____

ATTACHMENTS (For Office of Field Experiences Copy Only)

- ____ Copies of all completed observation reports from university supervisor
- ____ Copies of all completed observation reports from cooperating teacher
- ____ Remediation plan for the student

¹ Discontinuances are removals from current clinical practice placement. Residents may, if recommended, repeat clinical practice once, as long as remediation is approved

² Withdrawal from Clinical Practice for any reason may affect student financial aid.

SAMPLE
Clinical Practice Observation Form (Formal observations must be submitted via Tk20)

Performance Based Assessment Scoring Sheet				
Candidate:	Date:	Program:		
Supervisor:	School Site:	Semester:		
Mentor:	☐ CP1	☐ CP2	☐ Other	Academic Year:

Please indicate the appropriate response for each item below:

1. Individual Completing Observation or Evaluation:

☒ University Supervisor

☐ Mentor/CT

☐ Self

2. Purpose of Assessment:

☐ Observation # ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

☐ Midterm Evaluation

☐ Final Evaluation

3. Date discussed with Candidate: _____

Signatures

Domain 1 Planning and Preparation					Emerging	Developing	Proficient	Distinguished
1a. Applying Knowledge of Content and Pedagogy					☐	☐	☐	☐
1b. Knowing and Valuing Students					☐	☐	☐	☐
1c. Setting Instructional Outcomes					☐	☐	☐	☐
1d. Using Resources Effectively					☐	☐	☐	☐
1e. Planning Coherent Instruction					☐	☐	☐	☐
1f. Designing and Analyzing Assessments					☐	☐	☐	☐
Section Score								
Section Mean								
Domain 1 Strengths, Challenges, and Goals:								
Domain 2 Learning Environments					Emerging	Developing	Proficient	Distinguished
2a. Cultivating Respectful and Affirming Environments					☐	☐	☐	☐
2b. Fostering a Culture for Learning					☐	☐	☐	☐
2c. Maintaining Purposeful Environments					☐	☐	☐	☐
2d. Supporting Positive Student Behavior					☐	☐	☐	☐
2e. Organizing Spaces for Learning					☐	☐	☐	☐
Section Score								
Section Mean								
Domain 2 Strengths, Challenges, and Goals:								
Domain 3 Learning Experiences					Emerging	Developing	Proficient	Distinguished
3a. Communicating about Purpose and Content					☐	☐	☐	☐
3b. Using Questioning and Discussion Techniques					☐	☐	☐	☐

Observation Notes: N=	
<u>Basic Lesson Context:</u>	
<u>LESSON INTRODUCTION</u>	GENERAL COMMENTS
<u>LESSON BODY</u>	
<u>LESSON CONCLUSION</u>	

Final Student Teaching Evaluation only: I attest that this candidate has demonstrated sufficient knowledge, skills, and competencies and a readiness to teach based on this evaluation and their performance in their clinical practice. I support their recommendation for a NJ Teaching certification.

Signatures & Date

University Supervisor:

CT/Mentor:

Candidate:

SAMPLE
Residency/Internship Midterm and Final Evaluation
(submitted via TK20)

Resident

Supervisor

Program

Collaborating Teacher

District

Subject/Grade

School

Date

Instructions: Rate the resident on each of the components using the Performance Description of evidence Danielson Group). Ratings of *Distinguished* or *Basic* should be verified in clear evidence based statements within the comments section. Proficiency evidence of performance must be in the comments section. In order to be recommended for certification, the resident must receive at least a *Basic* rating for all indicators.

Domain 1: Planning and Preparation	Rating
1a. Demonstrating knowledge of content and pedagogy.	
1b. Demonstrating knowledge of students	
1c. Setting instructional outcomes.	
1d. Demonstrating knowledge of resources.	
1e. Designing coherent instruction.	
1f. Designing student assessments.	
<i>Recommendations for U or B ratings/Evidence for D or P Ratings/Additional Comments:</i>	

Domain 2: Classroom Environment	Rating
2a. Creating an environment of respect and rapport	
2b. Establishing a culture for learning	
2c. Managing classroom procedures	
2d. Managing student behavior	
2e. Organizing physical space	
<i>Recommendations for U or B ratings/Evidence for D or P Ratings/Additional Comments:</i>	

Domain 3: Instruction	Rating
3a. Communicating with students.	
3b. Questioning and discussion techniques	
3c. Engaging students in learning	
3d. Using assessment in instruction	
3e. Demonstrating flexibility and responsiveness	
<i>Recommendations for U or B ratings/Evidence for D or P Ratings/Additional Comments:</i>	

Domain 4: Professional Responsibilities	Rating
4a. Reflecting on teaching	
4b. Maintaining accurate records	
4c. Communicating with families	
4d. Participating in a professional community	
4e. Growing and developing professionally	
4f. Showing professionalism	
<i>Recommendations for U or B ratings/Evidence for D or P Ratings/Additional Comments:</i>	

Please also use the program's SPA-specific rubric to evaluate the candidate for midterm and final evaluations.

Additional Comments

Recommendation for Certification (TO BE COMPLETED FOR FINAL EVALUATION ONLY)
The resident (circle one) IS / IS NOT recommended for certification in _____ (Certification area as per the NJDOE).

Supervisor's Signature

Date

Collaborating Teacher's Signature

Date

Candidate's Signature

Date

APPENDIX G

NCTM NCATE/CAEP SPA ADDENDUM Indicators Specific to the Mathematics Education Program ROWAN UNIVERSITY COLLEGE OF EDUCATION

Candidate: _____
Supervisor: _____

Date: _____
Date: _____

Instructions: Rate the candidate on each of the components using the given rubric. For ratings of *Distinguished*, a description of evidence to support the rating must be included in the comments section. For ratings of *Basic* or *Unsatisfactory*, clear recommendations for growth must be included in the comments section. **In order to be recommended for certification, the candidate must receive at least a *Basic* rating for all indicators.**

1. Apply knowledge of curriculum standards for secondary mathematics and their relationship to student learning within and across mathematical domains. (NCTM NCATE/CAEP 3a)	
D	Plans reflect the goals of the NCTM Standards and <u>integrate</u> the Mathematics CCSS for Content and Practices in meaningful ways. Appropriate Cumulative Progress Indicators are included. Rationale identifies “big idea” aligned with standards and objectives. <u>All</u> written unit/lesson outcomes are performance-based and aligned to the appropriate CCSS. Plans consistently connect knowledge, understandings, and skills to big idea.
B	Plans reflect the goals of the NCTM Standards and <u>list</u> the CCSS including appropriate Cumulative Progress Indicators. Rationale identifies “big idea” aligned with standards and objectives. Plans inconsistently connect knowledge, understandings, and skills to big idea. <u>Most</u> written unit/lesson outcomes are performance-based.
U	Plans do not adequately reflect the goals of the NCTM Standards and/or the CCSS OR plans do not include appropriate Cumulative Progress Indicators. A “big idea” is not identified or is misidentified. Written unit/lesson outcomes are not performance-based.
2. Plan lessons and units that incorporate a variety of strategies, differentiated instruction for diverse populations, and mathematics-specific and instructional technologies in building all students’ conceptual understanding and procedural proficiency. (NCTM NCATE/CAEP 3c)	
D	Candidate consistently creates, selects, uses, and determines suitability of the wide variety of available resources (print, online, and human), mathematics curricula and teaching materials (including technology) for all students including those with special needs such as the gifted, challenged and speakers of other languages. Candidate consistently selects, uses, and determines the suitability of a wide variety of print and on-line resources from professional mathematics and education organizations to enhance textbook-based lesson and unit plans. Candidate consistently uses these multiple resources to plan units that incorporate <u>all</u> of the following in building all students’ conceptual understanding and procedural proficiency: • a variety of strategies • differentiated instruction for diverse populations, and • mathematics-specific and instructional technologies.
B	Candidate selects, use, and determine the suitability of the wide variety of available resources (print, online, and human), mathematics curricula and teaching materials (including technology) for all students including those with special needs such as the gifted, challenged and speakers of other languages. For each unit planned, the candidate uses these resources to plan units that incorporate one or two of the following in building all students’ conceptual understanding and procedural proficiency: • a variety of strategies • differentiated instruction for diverse populations, and • mathematics-specific and instructional technologies.

U	Candidate does not select, use, and/or determine the suitability of the wide variety of available resources (print, online, and human), mathematics curricula and teaching materials (including technology) for all students including those with special needs such as the gifted, challenged and speakers of other languages. For each unit planned, the candidate does not use these resources to plan units that incorporate at least one of the following in building all students' conceptual understanding and procedural proficiency: • a variety of strategies • differentiated instruction for diverse populations, or • mathematics-specific and instructional technologies.
3.	Provide students with opportunities to communicate about mathematics. (NCTM NCATE/CAEP 3d)
D	Candidate plans for and facilitates a variety of meaningful, original communicative activities in the classroom. Candidate knows the difference between mechanical and meaningful communicative exercises and uses them appropriately. Candidate <u>designs and implements</u> activities that promote cooperation and interaction and maximizes the time students have to communicate mathematically.
B	Candidate plans for and facilitates meaningful communicative activities in the classroom. Candidate knows the difference between mechanical and meaningful communicative exercises and usually uses them appropriately. Candidate facilitates pair/group activities and maximizes the time students have to use the target language. Candidate <u>implements</u> activities that promote cooperation and interaction and maximizes the time students have to communicate mathematically. Candidate provides clear directions and models for all activities. Candidate groups students appropriately and monitors group activities. Candidate conducts appropriate follow-up tasks (8.7).
U	Candidate does not plan or has difficulty facilitating meaningful communication. Candidate relies primarily on mechanical exercises. Candidate uses pair/group communicative activities minimally in class. Candidate rarely implements activities that promote cooperation and interaction. Directions given are unclear or inappropriate. Students are groups inappropriately for the planned activity. Group activities are not monitored appropriately causing students to be off-task. Candidate does not conduct follow-up tasks or chooses tasks that are inappropriate.
4. the	Provide students with opportunities to make connections among mathematics, other content areas, everyday life, and the workplace. (NCTM NCATE/CAEP 3d)
D	Candidates consistently demonstrate how mathematical ideas interconnect and build on one another to produce a coherent whole. Candidate consistently uses connections among mathematical ideas to scaffold students' understanding of mathematics. Candidate consistently applies mathematics in contexts outside of mathematics. Candidate consistently uses stimulating curricula and connects the mathematics being studied to students' lives. Candidate integrates the history of mathematics without promoting stereotypes and biases and encourages students to think critically about cultural connections.
B	Candidate demonstrates how mathematical ideas interconnect and build on one another to produce a coherent whole. Candidate sometimes uses connections among mathematical ideas to scaffold students' understanding of mathematics. Candidate sometimes applies mathematics in contexts outside of mathematics. Candidate sometimes uses stimulating curricula and makes efforts to connect the mathematics being studied to students' lives.
U	Candidate does not demonstrate how mathematical ideas interconnect and build on one another to produce a coherent whole. Candidate makes few connections among mathematical ideas. Candidate infrequently applies mathematics in contexts outside of mathematics. Candidate does not use stimulating curricula and/or does not make efforts to connect mathematics being studied to students' lives. Candidate includes the history of mathematics but presents stereotypical and/or biased views of the cultures presented.
5.	Plan, select, implement, interpret, and use formative and summative assessments to inform instruction by reflecting on mathematical proficiencies essential for all students. (NCTM NCATE/CAEP 3f)

D	Candidate's assessment plans and procedures consistently are aligned to <i>all</i> instructional outcomes and the CCSS mathematical content standards and practices identified in lesson and unit planning documents. Candidate's assessment plans consistently include multiple strategies, including listening to and understanding the ways students think about mathematics, to assess students' mathematical knowledge, understanding, and skill. Candidate's assessment plans consistently include clear criteria for assessing student work. Candidate assesses student progress through creative, performance-based, nontraditional assessments in addition to traditional testing formats. Candidate adapts assessment strategies for individual students as needs arise.
B	Candidate's assessment plans and procedures consistently are aligned to <u>most</u> of the instructional outcomes and the CCSS mathematical content standards and practices identified in lesson and unit planning documents. Candidate's assessment plans include multiple strategies to assess students' mathematical knowledge, including listening to and understanding the ways students think about mathematics in addition to traditional testing formats. The candidate's approach to using formative assessment is rudimentary, including only some of the instructional outcomes. Candidate's assessment plans include criteria for assessing student work that are not always clear.
U	Candidate's assessment plans and procedures are not aligned to most of the instructional outcomes and the CCSS mathematical content standards and practices identified in lesson and unit planning documents. Candidate's assessment plans include only traditional testing formats to assess student learning and no formative assessments. Candidate's assessment plans do not include criteria for assessing student work. The teacher has no plan to incorporate formative assessment in the lesson or unit.
6.	Monitor students' progress, make instructional decisions, and measure students' mathematical understanding and ability using formative and summative assessments. (NCTM NCATE/CAEP 3g)
D	Candidate enacts a coherent and systematic plan for using formative and summative assessments to monitor students' progress, make instructional decisions, and measure students' mathematical understanding and skill. Candidate's plan includes frequent and timely assessment of and feedback to students, including reengaging students with the mathematics.
	Candidate provides opportunities for students to monitor and reflect on their progress. Candidate consistently modifies instruction in response to assessment results in ways that maximize student learning of mathematics. Candidate's approach to using assessments is well-designed and includes student self-monitoring in addition to the teacher use of the assessment information.
B	Candidate monitors students' progress regularly but has not developed a coherent system for measuring students' mathematical understanding and skill and making instructional decisions based on student progress. Formative and/or summative assessments are not always used systematically, regularly, or appropriately. Feedback to students is timely. Candidate modifies instruction in response to assessment results.
U	Candidate rarely conducts formative and summative assessments to measure students' mathematical understanding and monitor students' progress. Candidate does not use assessment information to inform planning and instruction.
7.	Plan and create developmentally appropriate, sequential, and challenging learning opportunities grounded in mathematics education research in which students are actively engaged in building new knowledge from prior knowledge and experiences. (NCTM NCATE/CAEP 4b)
D	Candidate consistently plans and creates developmentally appropriate, sequential, and challenging learning opportunities grounded in mathematics education research. Students are actively engaged in building new knowledge from prior knowledge and experiences. Candidate consistently leads classes in mathematical problem solving and in developing in-depth conceptual understanding and to help students develop and test generalizations. Candidate consistently provides opportunities for students to build new mathematical knowledge through problem solving. Candidate integrates reasoning and proof as fundamental aspects of mathematics. Candidate consistently provides opportunities for students to make and investigate mathematical conjectures. Candidate consistently provides opportunities for students to select and use various types of reasoning and methods of proof.
B	Candidate plans and creates developmentally appropriate, sequential, and challenging learning opportunities grounded in mathematics education research in which students are actively engaged in building new knowledge from prior knowledge and experiences. Candidate provides some opportunities for students to apply and adapt a variety of appropriate strategies to solve problems. Candidate provides some opportunities for students to build new mathematical knowledge through problem solving. Candidate includes reasoning and proof as aspects of mathematics.

	Candidate provides some opportunities for students to make and investigate mathematical conjectures. Candidate provides some opportunities for students to select and use various types of reasoning and methods of proof.
U	Candidate does not plan developmentally appropriate, sequential, and challenging learning opportunities grounded in mathematics education research in which students are actively engaged in building new knowledge from prior knowledge and experiences. Candidate provides few or no opportunities for students to apply and adapt a variety of appropriate strategies to solve problems. Candidate provides few or no opportunities for students to solve problems that arise in mathematics and those involving mathematics in other contexts. Candidate provides few or no opportunities for students to build new mathematical knowledge through problem solving. Candidate does not include reasoning and proof as fundamental aspects of mathematics. Candidate provides few or no opportunities for students to make and investigate mathematical conjectures. Candidate provides few or no opportunities for students to select and use various types of reasoning and methods of proof.
8.	Apply mathematical content and pedagogical knowledge to select and use instructional tools such as manipulatives and physical models, drawings, virtual environments, spreadsheets, presentation tools, and mathematics-specific technologies (e.g., graphing tools, interactive geometry software, computer algebra systems, and statistical packages); and make sound decisions about when such tools enhance teaching and learning, recognizing both the insights to be gained and possible limitations of such tools. (NCTM NCATE/CAEP 4e)
D	Candidate seamlessly integrates various teaching tools including technology. Candidate uses knowledge of mathematics and pedagogy to select and seamlessly integrate appropriate technological tools, such as but not limited to, spreadsheets, dynamic graphing tools, computer algebra systems, dynamic statistical packages, graphing calculators, data-collection devices and presentation software. Candidate develops lessons that seamlessly integrate technology's potential for building understanding of mathematical concepts and developing important mathematical ideas. Candidate selects and integrates seamlessly appropriate concrete materials for learning mathematics. Candidate articulates advantages and disadvantages of using particular instructional tools.
B	Candidate uses various teaching tools including technology. Candidate uses knowledge of mathematics and pedagogy to select and use appropriate technological tools, such as, but not limited to, spreadsheets, dynamic graphing tools, computer algebra systems, dynamic statistical packages, graphing calculators, data-collection devices and presentation software. Candidate develops lessons that use technology's potential for building understanding of mathematical concepts and developing important mathematical ideas. Candidate selects and uses appropriate concrete materials for learning mathematics. Candidate articulates advantages and disadvantages of using particular instructional tools.
U	Candidate does not use various teaching tools including technology. Candidate does not use knowledge of mathematics and pedagogy to select and use appropriate technological tools. Candidate does not develop lessons that use technology's potential for building understanding of mathematical concepts and developing important mathematical ideas. Candidate does not use appropriate concrete materials for learning mathematics.
9.	Verify that secondary students demonstrate conceptual understanding; procedural fluency; the ability to formulate, represent, and solve problems; logical reasoning and continuous reflection on that reasoning; productive disposition toward mathematics; and the application of mathematics in a variety of contexts within major mathematical domains. ((NCTM NCATE/CAEP 5a)
D	Candidate consistently verifies that that secondary students demonstrate: • conceptual understanding; • procedural fluency; • the ability to formulate, represent, and solve problems; • logical reasoning and continuous reflection on that reasoning; • productive disposition toward mathematics; and • the application of mathematics in a variety of contexts within major mathematical domains.

B	Candidate demonstrates the ability to verify that that secondary students demonstrate at least 5 of the following: • conceptual understanding; • procedural fluency; • the ability to formulate, represent, and solve problems; • logical reasoning and continuous reflection on that reasoning; • productive disposition toward mathematics; and • the application of mathematics in a variety of contexts within major mathematical domains.
U	Candidate demonstrates the ability to verify that that secondary students demonstrate fewer than 5 of the following: • conceptual understanding; • procedural fluency; • the ability to formulate, represent, and solve problems; • logical reasoning and continuous reflection on that reasoning; • productive disposition toward mathematics; and • the application of mathematics in a variety of contexts within major mathematical domains.
10. Collect, organize, analyze, and reflect on diagnostic, formative, and summative assessment evidence and determine the extent to which students' mathematical proficiencies have increased as a result of their instruction. (NCTM NCATE/CAEP 5c)	
D	Candidate consistently enacts a coherent system for collecting, organizing, analyzing, and reflecting on diagnostic, formative, and summative assessment evidence and determining the extent to which students' mathematical proficiencies have increased as a result of their instruction.
B	For at least one unit of study, the candidate demonstrates the ability to collect, organize, analyze, and reflect on diagnostic, formative, and summative assessment evidence and determine the extent to which students' mathematical proficiencies have increased as a result of their instruction.
U	The candidate is unable to demonstrate the ability to collect, organize, analyze, and reflect on diagnostic, formative, and summative assessment evidence and determine the extent to which students' mathematical proficiencies have increased as a result of their instruction for at least one unit of study.
11. Take an active role in their professional growth by participating in professional development experiences that directly relate to the learning and teaching of mathematics. (6a)	
D	Candidate regularly seeks out, attends, participates in, and reports out on multiple professional development experiences directly related to the learning and teaching of mathematics. Candidate consistently integrates what s/he learned into planning, instruction, and assessment in ways that enhance learning for all students.
B	Candidate attends and participates in several professional development experiences directly related to the learning and teaching of mathematics. Candidate integrates what s/he learned into planning, instruction, and assessment in ways that enhance student learning.
U	Candidate either does not attend or does not participates in several professional development experiences directly related to the learning and teaching of mathematics. Candidate seldom integrates what s/he learned into planning, instruction, and assessment in ways that enhance student learning.
12. Engage in continuous and collaborative learning that draws upon research in mathematics education to inform practice; enhances learning opportunities for all students' mathematical knowledge development; involves colleagues, other school professionals, families, and various stakeholders; and advances their development as a reflective practitioner. (NCTM NCATE/CAEP 6b)	
D	Candidate takes a <i>lead</i> role in continuous and collaborative learning that draws upon research in mathematics education to inform practice and enhances learning opportunities for <i>all</i> students' mathematical knowledge development.
	Candidate regularly seeks out and involves <i>multiple different</i> stakeholders in enhancing learning opportunities for <i>all</i> students' mathematical development and shows evidence of a positive effect on student learning due to this involvement. Candidate advances own development as a reflective practitioner through engagement in reflective writing and professional discussions around their own teaching <i>beyond reflections for and feedback from field supervisor</i> .
B	Candidate participates in continuous and collaborative learning that draws upon research in mathematics education to inform practice and enhances learning opportunities for all students' mathematical knowledge development. Candidate involves <i>at least two different</i> stakeholders in enhancing learning opportunities for students' mathematical development and shows evidence of a positive effect on student learning due to this involvement. Candidate advances own development as a reflective practitioner through engagement in reflective writing and professional discussions around their own teaching.

U	Candidate does not participate in <u>continuous</u> and <u>collaborative</u> learning that draws upon research in mathematics education to inform practice and enhances learning opportunities for all students' mathematical knowledge development. Candidate does not involve stakeholders to enhance learning opportunities for students' mathematical development. Candidate does not advance own development as a reflective practitioner.
13.	Examine the nature of mathematics, how mathematics should be taught, and how students learn mathematics; and observe and analyze a range of approaches to mathematics teaching and learning, focusing on tasks, discourse, environment, and assessment. (NCTM NCATE/CAEP 7c)
D	Candidate seeks and engages systematically in purposeful observations of others' teaching that enable her/him to examine the nature of mathematics, how mathematics should be taught, and how students learn mathematics, with particular attentions to tasks, discourse, environment, <i>and</i> assessment. Candidate engages in careful, sophisticated analysis of observations, articulates findings, and applies what s/he learns to improve student learning of mathematics.
B	Candidate engages in observations of others' teaching that enable her/him to examine the nature of mathematics, how mathematics should be taught, and how students learn mathematics, with particular attention on tasks, discourse, environment, <i>and</i> assessment. Candidate demonstrates the ability to analyze observations and apply what s/he learns to improve student learning of mathematics, with attention to tasks, discourse, environment, <i>and</i> assessment.
U	Candidate does not engage in observations of others' teaching that enable her/him to examine the nature of mathematics, how mathematics should be taught, and how students learn mathematics, with particular attention to tasks, discourse, environment, <i>and</i> assessment. Candidate engages in observations but does not analyze observations and/or apply what s/he learns to improve student learning of mathematics.

APPENDIX H

NSTA/ CAEP SCIENCE SPA ADDENDUM INDICATORS SPECIFIC TO THE SCIENCE EDUCATION PROGRAM ROWAN UNIVERSITY COLLEGE OF EDUCATION SUBJECT-MATTER EDUCATION

Candidate: _____

Signature: _____

Supervisor: _____

Signature: _____

Date: _____

Date: _____

Instructions: Rate the candidate on each of the components using the given rubric. For ratings of *Distinguished*, a description of evidence to support the rating must be included in the “Rationale for Rating” section. For ratings of *Basic* or *Unsatisfactory*, clear recommendations for growth must be included in the comments section. **In order to be recommended for certification, the candidate must receive at least a *Basic* rating for all indicators.**

1. Content Area (NSTA 1a) (INTASC 4); K.K.1g; Candidate’s understanding of major concepts, principles, theories, laws, and interrelationships in their content area.		Rating
U	Candidate’s teaching shows an inaccurate understanding	
B	Candidate’s teaching shows an accurate general understanding but conveys occasional misconceptions	
P	Candidate’s teaching shows an accurate in-depth understanding	
D	Candidate’s teaching shows an accurate in-depth understanding, which is demonstrated with relevant real-life examples to students.	
Rationale for Rating		
2. Integrated Content Area (NSTA 1b) (INTASC 5); K.S.4.g Candidate’s understanding of central concepts of supporting disciplines (ex: math, biology etc.)		Rating
U	Candidate’s teaching shows an inaccurate understanding	
B	Candidate’s teaching shows an accurate general understanding but conveys occasional misconceptions	
P	Candidate’s teaching shows an accurate in-depth understanding	
D	Candidate’s teaching shows an accurate in-depth understanding and demonstrates this with relevant real life examples to students.	
Rationale for Rating		
3. NGSS Standard Based Teaching (NSTA 1c) (INTASC 7) Candidate’s teaching alignment with NGSS		Rating
U	Candidate’s teaching does not demonstrate alignment with NGSS standards	
B	Candidate’s teaching demonstrates some alignment with NGSS standards	
P	Candidate’s teaching demonstrates complete alignment with NGSS standards, and this is shared with students (ex: listing standard based outcomes on board)	
D	Candidate’s teaching <i>and</i> assessment demonstrate complete alignment with NGSS standards, and this is shared with students (ex: identified in feedback given to students and listed outcomes)	
Rationale for Rating		
4. Content Pedagogy - Philosophical Foundations (INTASC 5) D.K.4.g Candidate’s teaching is grounded in a philosophical framework		Rating
U	Candidate’s teaching is not grounded in any form of constructivism	
B	Candidate’s teaching is generally grounded in constructivism, although some aspects of teaching do not demonstrate this philosophy	
P	Candidate’s teaching and questioning during class engagement are grounded in constructivism	
D	Candidate’s teaching, questioning, and self-assessment of their instruction are grounded in constructivism	

Rationale for Rating		
5. Content Pedagogy - Inquiry Approaches (NSTA 2a) (INTASC 4); K.D.2g; K.S.3.g Candidates use of inquiry approaches in their teaching		Rating
U	Candidate's teaching where contextually relevant is not inquiry based	
B	Candidate's teaching where contextually relevant is generally inquiry based	
P	Candidate's teaching where contextually relevant demonstrates specific inquiry based approaches (ex: guided, structured, full), and can articulate rationale for approach	
D	Candidate's teaching where contextually relevant follows specific inquiry based models (ex: Learning Cycle, POGIL etc...)	
Rationale for Rating		
6. Content Pedagogy - Empirical Science and Engineering Practices (NSTA 2b) (INTASC 5); K.K.2g Candidate engages students in empirical experiences and science and engineering practices (ex: data collection, interpretation, analysis, conclusion and argumentation)		Rating
U	Candidate's teaching, where contextually relevant, does not engage students in empirical experiences	
B	Candidate's teaching, where contextually relevant, generally engages students in empirical experiences, although missing some aspect of interpretation, analysis, conclusion, or argumentation	
P	Candidate's teaching, where contextually relevant, specifically engages students in empirical experiences by targeting general NGSS based science and engineering practices	
D	Candidate's teaching, where contextually relevant, specifically engages students in empirical experiences by identifying AND assessing specific NGSS based science and engineering practices	
Rationale for Rating		
7. Content Pedagogy-HOS/NOS/SSI/Culture/Technology (NSTA 2a and 2c) (INTASC 4 and 5); T.S.8.g; D.K.3.g; Candidate engages students in History of Science, Nature of Science, Socio-scientific Issues, Cultural and Technological connections		Rating
U	Candidate's teaching where contextually relevant does not engage students in any of the noted 5 themes throughout their residency experience.	
B	Candidate's teaching where contextually relevant generally engages students in at least two of the 5 noted themes throughout their residency experience	
P	Candidate's teaching where contextually relevant engages students in at least three of the 5 noted themes throughout their residency experience	
D	Candidate's teaching where contextually relevant engages students in all 5 of the noted themes throughout their residency experience	
Rationale for Rating		
8. Safety Practices for Student Welfare (NSTA 3d) (INTASC 9); T.S.6.g Candidate addresses student's welfare		Rating
U	Candidate does not present, display and practice safety rules with students where contextually relevant	
B	Candidate presents, displays and practices safety rules with students where contextually relevant.	
P	Candidate presents, displays and practices safety rules with students AND discusses reasons for such rules with students where contextually relevant	
D	Candidate presents, displays and practices safety rules with students AND discusses reasons for such rules with students where contextually relevant AND promotes consistency in science department safety protocol within the school.	
Rationale for Rating		

9. Professional Knowledge and Skills in Content Field (NSTA 6a) (INTASC 9)		Rating
Candidate engages in professional development specific to their content field for the betterment of their teaching (ex: talks, symposiums, research opportunities or projects within the community)		
U	Candidate does not engage in specific professional development in their content discipline	
B	Only once does the candidate engage in specific professional development in their content discipline	
P	Candidate engages more than once in specific professional development in their content discipline AND provides evidence of such engagement	
D	Candidate engages more than once in specific professional development in their content discipline AND provides evidence of such engagement AND transitions such knowledge and skills in their teaching practice.	
Rationale for Rating		
10. Professional Knowledge and Skills in Community (NSTA 6b) (INTASC 10)		Rating
Candidate engages in professional development in education for the betterment of their teaching (ex: talks, symposiums, research opportunities or projects within the community)		
U	Candidate does not engage in specific professional development for science teachers	
B	Only once does the candidate engage in specific professional development for science teachers	
P	Candidate engages more than once in specific professional development for science teachers AND provide evidence of such engagement	
D	Candidate engages more than once in specific professional development for science teachers AND provides evidence of such engagement AND transitions such knowledge and skills in their teaching practice.	
Rationale for Rating		

APPENDIX I

ROWAN UNIVERSITY ITP KEY ASSESSMENT: IMPACT ON STUDENT LEARNING

This key assessment, designed to be administered during Clinical Practice 2 or full-time clinical residency, enables candidates to demonstrate their impact on student learning, analyze the relationship between teaching and learning, and use reflection to improve professional practice and enhance student learning.

During this Performance-Based Key Assessment, the candidate will:

- Consider context in planning instruction/making instructional decisions
- Identify key objectives, standards, and content for targeted learning
- Plan and implement at least 1 lesson plan
- Analyze evidence of student learning

**This assessment consists of 3 parts. For parts 1 and 3, the candidate may choose how to present the information, provided the information is clearly communicated and addresses all required prompts. Suggestions include:*

- 2-3 page written reflection*
- VoiceThread or some other type of PowerPoint presentation (with or without narration)*
- Charts, bulleted lists, graphic organizers, tables and graphs*
- Video presentation*
- Podcast*
- Other format not listed – discuss with your instructor*

Part 1: Planning for Instruction (*See asterisked instructions in blue above for what to turn in*)

1. Consider **one** of your classes/sections/courses during CP2. Take some time to think about the context and composition of this class, looking at students' strengths/interests and areas of need/challenge. Provide an overview of this class, describing the most salient features as you see them. You may want to consider the following (though you do NOT need to address all of the bullets):

- Ethnic/cultural background of students
- Students' linguistic backgrounds
- Identified student learning needs (both formally documented and informally observed)
- Available school resources
- Available community resources
- Any other classroom elements that may impact your delivery of instruction (e.g., you are following a mandated curriculum, your CT requires you include specific elements in your lesson plan, etc.)
- Student learning needs, preferences, and styles of learning based on your observations and work with the students

2. Consider the learning outcomes on which you want to focus (can be for one lesson or a series of lessons). Answer ALL of the following questions:

- What are these learning outcomes?
- What standards do they address?
- Why are these learning outcomes appropriate for your students' current development and interests?
- What do you know about students' prior knowledge, understanding, misconceptions, and skills regarding the learning outcomes and content planned for this lesson [pre-assessment] from observational data, pre-assessments, formative assessments, class discussions, students' reflections]?
- How are these learning outcomes aligned with your cooperating teacher's long-range instructional goals?
- How can you draw on students' strengths/interests to meet these learning outcomes?

Part 2: Implementing Instruction (Turn in: At least 1 lesson plan, including formal post-assessment of learning)

1. Using the information from Part 1 and the **lesson plan template recommended/approved by your program, design a lesson plan** for your targeted key objectives, standards, and content. Be certain to include accommodations and adaptations for specific learning needs *and* to draw on Universal Design for Learning throughout your entire lesson. Each lesson should have opportunities for you to formatively assess student learning.

2. Be sure to have a formal post-assessment of learning to administer at the end of the lesson/series of lessons.

Part 3 Analysis of Student Learning and Reflection (*See asterisked instructions in blue above for what to turn in*)

Address the following three key areas of information:

1. After teaching the lesson and administering the post-assessment, share the students' data from the formative and summative assessments in an easy-to-understand format. * Describe any adaptations or accommodations made during the lesson in response to formative assessments. *

2. Include an analysis of student learning in this instructional lesson[s]. * What did students achieve related to the targeted objectives, standards, and content? Be specific and explain how you can determine what they learned. * Consider the following questions:

- What strategies seemed to have the most impact – how do you know?
- Were there methods or strategies that were less impactful? How do you know?
- How did you use the formative assessments **during** instruction to determine student understanding/progress and to make adjustments?
- Were there any obstacles or barriers that inhibited students' learning? Explain. How did you try to address these obstacles/barriers? What was successful? What wasn't successful?

3. If you were to teach this again, provide a description of what the next lesson's objectives and content could include based on the feedback and data from this lesson[s]- were students ready to progress and if so, to what? * If not, in what areas do the students need more instruction? What did you learn about your teaching from this process? *

Emerging	Proficient/Meets Expectations	Exceeds Expectations	Score
1. Identifies and analyzes classroom context. NJPST 1,2,3 INTASC 1,2,3 Danielson Domain 1b, 2a N/ANot applicable	2 Considers some aspects of the classroom composition: culture, ethnicity, learning needs, interests, prior to instruction and may use several factors to engage students in lesson. Considers some aspects of the classroom composition: culture, ethnicity, learning needs, interests, prior to instruction and may use several factors to engage students in lesson.	3 Thoughtfully considers multiple elements that constitute classroom context, culture and available resources prior to instruction and deliberately considers/uses these to plan instruction and engage students. Thoughtfully considers multiple elements that constitute classroom context, culture and available resources prior to instruction and deliberately considers/uses these to plan instruction and engage students.	
2. Pre-Assessment, Data Analysis NJPST 6 INTASC 1,2,6 Danielson Domain 1e, 1f, 3d, 3e N/ANot applicable	2 Considers students' prior learning, understanding, beliefs, to determine readiness for instruction. Some insight into student readiness for learning based on pre-assessment, observational data, prior assessments, etc. is used in lesson planning. Considers students' prior learning, understanding, beliefs, to determine readiness for instruction. Some insight into student readiness for learning based on pre-assessment, observational data, prior assessments, etc. is used in lesson planning.	3 Use of pre-assessments, observational data, prior assessments, class work, interest surveys/inventories, etc. provide information used in planning to aid in engaging students, targeting students' levels & areas of understanding / misunderstanding, prior knowledge, content relevancy, etc. Use of pre-assessments, observational data, prior assessments, class work, interest surveys/inventories, etc. provide information used in planning to aid in engaging students, targeting students' levels & areas of understanding / misunderstanding, prior knowledge, content relevancy, etc.	
3. Planning Instruction NJPST 1,2,3,4,5,6,7,8 INTAC 1,2,3,4,6,7,8 Danielson Domains 1a, 1c, 1d, 1e N/ANot applicable	2 Using Program-approved format, Lesson Plan[s] were created for targeted objectives, standard, content which demonstrated some relevance to the students in the targeted class/ context. Using Program-approved format, Lesson Plan[s] were created for targeted objectives, standard, content which demonstrated some relevance to the students in the targeted class/ context.	3 Using Program-approved format, Lesson Plan[s] were created for targeted objectives, standard, content which have effectively used the contextual analysis and pre-assessment data to make explicit instructional decisions for the entire class and for individual/targeted learners. Using Program-approved format, Lesson Plan[s] were created for targeted objectives, standard, content which have effectively used the contextual analysis and pre-assessment data to make explicit instructional decisions for the entire class and for individual/targeted learners.	

A lesson plan was appropriated from the internet and not adapted for the contextualized learning environment/targeted objectives, standards, content OR Using Program-approved format, Lesson Plan[s] were created for targeted objectives, standard, content which have very little connection to the context of the identified class or the pre-assessment data presented.

4. Implementing Instruction
NJPST 1,2,3,4,5,6,8
INTAC 4,5,6,8
Danielson Domains
2a, 2b, 2c, 2d, 2e, 3a, 3b, 3c, 3d, 3e
 NANA not applicable

1 Implements instruction as written in the lesson plan.
 Implements instruction as written in the lesson plan.

2 Implements instruction primarily as written in the lesson plan – uses formative assessments to determine progress and pace of lesson.
 Implements instruction primarily as written in the lesson plan – uses formative assessments to determine progress and pace of lesson.

3 Implements instruction as planned though adapts lesson plan as needed, responding to student feedback, misunderstanding, learning needs, formative feedback, etc. Pacing is determined by student needs, understanding and progress.
 Implements instruction as planned though adapts lesson plan as needed, responding to student feedback, misunderstanding, learning needs, formative feedback, etc. Pacing is determined by student needs, understanding and progress.

5. Using Formative Assessment
NJPST 6
INTASC 6
Danielson Domains
1f, 3d
 NANA not applicable

1 May or may not implement formative assessments during instruction. May not change instruction based upon results of formative assessment feedback – sticks to lesson plan regardless of students' understanding/misunderstanding.
 May or may not implement formative assessments during instruction. May not change instruction based upon results of formative assessment feedback – sticks to lesson plan regardless of students' understanding/misunderstanding.

2 Implements at least several formative assessments during instruction which provide feedback on student understanding of lesson material/content. Minor lesson adjustments are made based on formative assessments.
 Implements at least several formative assessments during instruction which provide feedback on student understanding of lesson material/content. Minor lesson adjustments are made based on formative assessments.

3 Implements multiple formative assessments during instruction which provide feedback on student understanding of lesson content. Adjusts instruction through accommodations and modifications that address the whole class and individual students' progress and needs.
 Implements multiple formative assessments during instruction which provide feedback on student understanding of lesson content. Adjusts instruction through accommodations and modifications that address the whole class and individual students' progress and needs.

6. Post-Assessment and Data
NJPST 6

1 Uses a post-assessment and provides student data.

2 Creates a post-assessment [may be same as pre-assessment] aligned to target objectives, standards, content and presents

3 Creates a post-assessment aligned to target objectives, standards, content and effectively presents data results for the whole class and for targeted students that convey who has met learning outcomes and

Emerging	Proficient/Meets Expectations	Exceeds Expectations	Score
INTASC 6 Danielson Domains 1f, 3d NANot applicable	Uses a post-assessment and provides student data.	data results clearly. Creates a post-assessment [may be same as pre-assessment] aligned to target objectives, standards, content and presents data results clearly.	who has not. Creates a post-assessment aligned to target objectives, standards, content and effectively presents data results for the whole class and for targeted students that convey who has met learning outcomes and who has not.
7. Analysis of Student Learning NJPST 6, 7, 9 INTASC 6, 2, 9 Danielson Domains 3d, 3e, 4b NANot applicable	1 Little discussion of what students actually learned. Students are discussed collectively. Little ownership/responsibility is assumed by the teacher for student learning/achievement. Little discussion of what students actually learned. Students are discussed collectively. Little ownership/responsibility is assumed by the teacher for student learning/achievement.	2 Discussion of student learning includes general concepts/identification of ideas of what students achieved during instruction, impact on students' learning, identification of strategies/methods used, and a barrier/obstacle for learning. Discussion of student learning includes general concepts/identification of ideas of what students achieved during instruction, impact on students' learning, identification of strategies/methods used, and a barrier/obstacle for learning.	3 Analysis of student learning includes what students achieved during instruction, their impact on students' learning, analysis of strategies/methods used, and barriers/obstacles for learning. Focus is on the impact the teacher had on student learning with examples cited from the lesson. Analysis of student learning includes what students achieved during instruction, their impact on students' learning, analysis of strategies/methods used, and barriers/obstacles for learning. Focus is on the impact the teacher had on student learning with examples cited from the lesson.
8. Planning for Future Learning NJPST 7, 8, 9, 1, 2, 7, 8 Danielson Domain 1b, 1c, 1e, 1f NANot applicable	1 Provides general ideas for future lessons with little reference to formative and summative data. Provides general ideas for future lessons with little reference to formative and summative data.	2 Vague plans for future learning are provided by reflecting on formative and summative assessment data and student engagement in learning. Vague plans for future learning are provided by reflecting on formative and summative assessment data and student engagement in learning.	3 Develops future learning goals for the whole class and a targeted student [groups] by reflecting on multiple forms of formative and summative assessment data including students' prior knowledge, misconceptions, mastery, and interests. Develops future learning goals for the whole class and a targeted student [groups] by reflecting on multiple forms of formative and summative assessment data including students' prior knowledge, misconceptions, mastery, and interests.
9. Reflection NJPST 9, INTASC 9 Danielson Domain 4a, 4e NANot applicable	1 Provides little to no reflection and/or assumes little responsibility for student learning. Provides little to no reflection and/or assumes little responsibility for student learning.	2 Global reflects on what students have learned and the effectiveness of his/her instructional practice. Global reflects on what students have learned and the effectiveness of his/her instructional practice.	3 Specific reflections on his/her impact on student learning – holistically for class and for particular targeted high and low performing students. Sets goals for improving his/her teaching. Specific reflections on his/her impact on student learning – holistically for class and for particular targeted high and low performing students. Sets goals for improving his/her teaching.
Rubric Score:			
Rubric Mean:			