TU: PRESIDENT ALBERT W. BROWN
FROM: THE FACULTY SENATE
RE: X I. Formal Resolution (Act of Determination) 
     II. Recommendation (Urging the fitness of) 
     III. Other (Notice, Request, Report, etc.)

SUBJECT: C.B.T.E. Program in Sciences 7-12

(See attached)

TO: THE FACULTY SENATE
FROM: PRESIDENT ALBERT W. BROWN
RE: I. DECISION AND ACTION TAKEN ON FORMAL RESOLUTION
   a. Accepted. Effective Date Upon Vice President's Approval
   b. Deferred for discussion with the Faculty Senate on
   c. Unacceptable for the reasons contained in the attached explanation

II, III. a. Received and acknowledged
       b. Comment:

DISTRIBUTION: Vice Presidents:
               Others as identified:

Distribution Date:________________
Signed:________________________
(President of the College)
Date Received by the Senate:______
Date Sent:______________________
TO: Albert W. Brown, President
FROM: Richard A. Terry, Vice President
RE: Final review of: (1) CBTE Program in Science 7-12 and (2) Program for Permanent Elementary Certification
DATE: July 9, 1976

I have now had an opportunity to review the two education programs which were given provisional approval at the last Administrative Council meeting, and find them to be consistent with prevailing curriculum requirements of the College.

RAT: keh
Cover Sheet

A. Date: June 1, 1975

B. Name of Submitter: STANTS Trial Project

C. Participating Agencies:
   1. Colleges:
      a. SUNY Brockport
      b. SUNY Geneseo
   2. School Districts:
      a. Fairport Central School
      b. Greece Central School
      c. Phelps-Clifton Springs Central School
      d. Red Jacket Central School, Shortsville
      e. Waterloo Central School
      f. Wayne Central School
   3. Others
      Rochester Council of Scientific Societies

D. Title of N.Y.S. Certificates
   Biology: 7-12
   Chemistry: 7-12
   Earth Science: 7-12
   Physics: 7-12
   General Science: 7-9

E. Level of Certificate
   Permanent

F. Degree(s): Permanent – M.S., M.A.

G. Anticipated date of Program Implementation:
   Permanent: September 1, 1978

F. Anticipated date of Program Completion by initial entrants:
   Permanent: June 1, 1983
Table of Contents

Permanent Certification Program, Secondary Science

Section I  Cover Sheet

Section II Program ................................. 2
   A. Statement of Program ..................... 2
   B. Entrance Requirement .................... 4
   C. Expected Knowledges, Skills, and Attitudes.. 4
   D. Assessment ................................. 4
   E. Student Guidance .......................... 12
   F. Program Evaluation and Management ...... 12
Comparison of Proposed New Program with Existing Program
Program leading to Permanent certification in Secondary Science Areas 7-12

<table>
<thead>
<tr>
<th>FROM</th>
<th>TO</th>
<th>RATIONALE</th>
</tr>
</thead>
<tbody>
<tr>
<td>College staff developed and implemented</td>
<td>Cooperatively developed through participation in STANYS Trial Project. Implementation of program to be responsibility of SUNY Brockport with annual reviews of Policy Board.</td>
<td>Meet requirements of 1972 Regents Plan for the development of post secondary education</td>
</tr>
<tr>
<td>Programs based solely on hours/degree</td>
<td>Competency based core (however, specific competencies are assigned to courses) in education</td>
<td>&quot;</td>
</tr>
<tr>
<td>Granting of certification based solely on hours of study beyond the Bachelors degree by Bureau of Teacher Certification in Albany</td>
<td>Certification to be granted by institution offering appropriate programs</td>
<td>&quot;</td>
</tr>
<tr>
<td>College centered course work</td>
<td>Greater emphasis on field experiences included in the competency core</td>
<td>&quot;</td>
</tr>
</tbody>
</table>
Section B – Program

1. This program is designed to prepare secondary science teachers for permanent certification in the State of New York. A key factor in the proposed program is our recognition of, and responsiveness to, the fact of variations of role expectations for the secondary science teacher. Specific expectations differ from school to school and are influenced by such factors as administrator preference, organizational structure, community and parental aspirations, nature of the student body, and the perceptions of individual teachers. Such wide variations in expectations, we believe, mandates a permanent certification program which, though rigorous, responds to the reality of those variations.

The applicant will be required to meet the following criteria: (1) The applicant will possess a New York State provisional teaching certificate which meets current standards. (2) The applicant will satisfactorily complete the required competency core in Education. (3) The applicant will satisfactorily complete the required additional hours in Science at the level established by the Faculty of Natural and Mathematical Sciences for graduate students.

The preceding requirements can be satisfied in the following ways:
(1) Applying as a candidate for an M.S. in Education with an appropriate science concentration. Acceptance will be based on current standards at the time of application. Such a program can be diagrammatically represented as:

![Diagram](image-url)
The applicant who selects a Master's of Science in Education degree will take at least twelve semester hours in science. The determination of those hours would be made by the student with advisement from both the Faculty of Education and the faculty of the appropriate field of Science in relation to the students' needs and interests. These courses will be taught by the Faculty of Natural and Mathematical Science and will be assessed according to their standards. This program also implements the theme of individualization by allowing variable hours of open electives depending upon the applicants' needs and background. (2) Applying as a candidate for an M.S. in a field of science. Acceptance will be based on current standards as established by the Faculty of Natural and Mathematical Sciences at the time of application. Such applicant who elects to take a Master's degree in a science field will be expected to meet the academic assessment procedures designed and implemented by the Faculty of Natural and Mathematical Sciences in addition to the permanent certification core of competencies in the Field of Education. (3) Applying as an applicant for certification only. This program would be similar to the M.S. in Education with the exception that the applicant does not need to meet degree entrance requirements but would need to possess a New York State provisional certificate in an appropriate science area. The total required hours for this Program would be thirty hours instead of the thirty-three hours required for the Masters' program.

In each of the three possible routes to permanent certification, the competency-based core remains the same. The candidate will have the opportunity to demonstrate an acceptable level of performance on stipulated competencies in lieu of formal attendance and instructional involvement in the competency-based core. Because of the objective nature of graduate level science courses, completion of such courses under the standards established by the science faculty will be considered as evidence of competency in the science area.
We view permanent certification as the writ that a person possesses the necessary knowledge and skills to be an effective teacher, not that he/she does teach well on a day by day and month by month basis. The latter attestation is, we believe, a function of the evaluation process of the school district rather than a certifying process.

The process of acquiring permanent certification should provide opportunities for the teacher to refine the basic skills and knowledge previously acquired. We believe that the program described with its strong emphasis on personal advisement can provide the applicant with such opportunities.

2. Requirements for Entrance

The requirements for entrance into the secondary science permanent certification program will be the possession of a baccalaureate degree and New York State provisional secondary science certificate. In addition, for acceptance into a master's degree program as noted in Section A, the applicant would have to meet current requirements at the time of application.

3. Expected Knowledge, Skills, Attitudes

See following pages.

4. Assessment

See following pages.

5. Student Guidance

Applicants for Permanent Certification at SUNY Brockport will receive counselling and program advisement. While these two functions are closely related, it is convenient to separate them for descriptive purposes.

Program advisement refers to the more formal and structured aspect of student guidance. When a student has been admitted to the SUNY Brockport Permanent Certification Program, she or he will make an appointment with the Advisement Coordinator of the Department of Curriculum and Instruction. The Advisement Coordinator will explain the completion requirements of the Program, and the options available within the Program requirements. The
5. Student Guidance (continued)

Advisement Coordinator and the applicant will consider the expressed interests and needs of the applicant. The Advisement Coordinator will initially counsel the candidate concerning the selection of appropriate coursework during the first semester of graduate work taken at SUC Brockport. As soon as feasible, the applicant with the guidance of the Advisement Coordinator will select a Program Advisor from among the SUC Brockport faculty members designated as secondary science Permanent Certification program Advisors. In addition, the applicant will be advised to seek an advisor in the particular area of science applicable to his/her program.

The role of the Program Advisor is to assist the applicant with career development planning and the selection and scheduling of appropriate academic learning experiences. If the applicant or the initial Program Advisor feels that the applicant's career development would be better facilitated by a different Program Advisor, such changes would be made by the Advisement Coordinator. The Applicant, the Program Advisor, and the Advisement Coordinator will at all times have an up-to-date record of the applicant's progress in the Program.

The Advisement Coordinator will be responsible for maintaining the records which provide the warrant to recommend permanent certification for the applicant. The applicant, consequently, always has at least two faculty members who are familiar with his progress in the Program and to whom he can turn for guidance.

Program Goal

We believe that in order to increase the competency of the science teacher so as to continue upgrading the education of secondary school science students, the education of teachers should be an ongoing process in all areas. In writing this program, we have tried to ensure that
teacher applicants for permanent certification increase their knowledge, skills and attitudes in both the basic science and pedagogical areas. In the area of the sciences, we are requiring additional work, at the graduate level, in the science area of certification. In the area of pedagogical understandings, we are requiring a basic core of competencies in the following areas:

Curricular development
Economics
Reading and Communication skills
Learning conditions
Behavioral problems

We further believe that it is necessary for a teacher to be able to evaluate his/her own performance as a teacher and how such performance affects secondary school students. Teachers prepared under this program should also be able to evaluate their performance as teachers in an ever-changing world.

By meeting these goals, we believe we can assist teacher-applicants to be able to demonstrate to their students the technique of assessing environmental and sociological conditions, make appropriate value judgments and adapt to current situations by the example they set in their classroom. It is our contention that through such a program, the ten goal statements of the Regents can best be attained.
1. Competency completed:

2. How long did it take you to complete this competency? (approximation is fine)

3. Were the materials needed to complete this competency easily available to you?
   YES ______ NO ______ Other comments:

4. Did there appear to be a clear relationship between this competency and your present duties or roles?
   YES ______ NO ______ Other comments:

5. If no to 4 above, how would you rate the value of this competency to your growth as a professional?
   No Value ________ Some Value ______ Great Value ______
   Other comments:

6. If this competency involves the use of the classroom and school facilities, would you please check the appropriate items noted below:

   A. Time and availability of equipment and supplies

      ___ Competency was realistic in terms of time and equipment needed.
      ___ Competency was not realistic in terms of time and equipment needed.
      Comments:

   B. Competency requirements and school policy

      ___ Not applicable.
      ___ Completion of competency was in keeping with school policy.
      ___ Completion of competency was not in keeping with school policy and it was necessary to secure special permission to complete.
B. Competency requirements and school policy (cont.)

Completion of competency was not in keeping with school policy and it was necessary to substitute alternative activity.

C. Competency requirements and ongoing instruction.

Not applicable.
Completion of competency facilitated ongoing instruction.
Completion of competency had no effect on the ongoing instruction.
Completion of competency hindered ongoing instruction.
Please explain.

Other comments:

7. Would you suggest that this competency be changed? YES ______ NO ______

If yes, to the above, what changes would you suggest?

Thank you for your time and effort in completing this form. We are following a policy of continual evaluation of the competency requirements and your input is extremely important to us.
CORRECTIONS AND ADDENDA

STANYS PERMANENT CERTIFICATION

Page 2 - Box under Education block reading "3 - 6 hours electives" should read "3 - 9 hours electives."

Page 3 - "(3) Applying as an applicant for certification only." should be clarified to read as follows:

(3) Applying as an applicant for certification only. This program is similar in many respects to the M.S. in Education degree. The similarities are: (a) The applicant will be required to complete the nine hour competency core. (b) The applicant will be required to complete twelve to eighteen hours in education. (c) The applicant will be required to complete twelve to eighteen hours in the science area in which he/she holds provisional certification. (d) The selection of appropriate courses will be made through the same advisement channels as exist for the matriculated graduate student. The point of departure lies in the fact that the applicant (a) will not be required to meet the current entrance requirements for the graduate degree and (b) will be required to complete thirty hours instead of the thirty-three hours noted in the degree program.

Page 12 - "Program Goal" and following paragraph should be transferred to Page 2 under the heading "Section B - Program" material in this section then has added heading of "Program Description."

Page 12 - Section to be added.

6. Program Evaluation and Management.

a. Program effectiveness will be an ongoing effort and will be reviewed by the Policy Board bimannually. Considerations will be:

(1) Are the competencies meeting the needs of the applicants?
(2) Are the stated program goals being attained? Instruments will be constructed or appropriate ones utilized to measure this component as applicants complete the program.

b. Information concerning the applicability of the knowledge, skills and attitudes to the school setting will be collected through the assessment form noted in a (1.) above which all applicants will be asked to complete for each required competency. In order to secure as candid evaluations as possible, the applicant will not sign the form and these forms will be kept on file at SBC Brockport. In addition,
upon completion of the Certification program, each applicant will be asked to evaluate the total program and this information will be utilized in monitoring the College program.

c. The competency core will be continually evaluated as noted in sections a and b above. Any recommended modifications will be made during the following semester and such modification/change again subject to monitoring. The overall program may be modified on the basis of the Policy Board recommendations but only upon approval of the appropriate college agencies both at the local and state level.

Page 15 - The listing of areas following the statement "In the area of pedagogical understandings, we are requiring a basic core of competencies in the following areas:"

"Economics" should read "Economics of science instruction"

A sixth topic should be added "Science and Values"