CONSULTANT RECOMMENDATION REPORT
Planning and Review Committee
Consultant Recommendation

I. Degree: BS in Technology Education

Date of Review: February 2010

Program Director: Sylvia Tiala

PRC Consultant(s): Alexander Basyrov, Marlann Patterson

Purpose of the Review: check progress of degree program

Committee Findings: The PRC recommends continuation of this program through the next scheduled review in 2017 and that the recommendations made by the committee be implemented.

II. Abstract: The B.S. in Technology Education prepares students for careers in Technology Education. Technology education careers include teachers in junior and senior high schools. The UW-Stout program is well known nationally and there is a continued strong demand for graduates from the program. The program requires 128 credits, 44 in general education, 46 credits in professional education, and 38 credits of technical requirements. This degree was first offered in 1967; consequently, this program was most recently reviewed in 2003-04, with a Status Report in 2005-06. The technology education field is in a period of rapid growth, change and redefinition. Stout's program is designed to meet the need of students entering this expanding and changing field. The program has an active Professional Advisory Committee. It received accreditation from Wisconsin Department of Public Instruction (under review in 2009), and is currently under review by National Council for the Accreditation of Teacher Education. Graduates of the program have experienced 93% or better employment rates, with at least 73% of graduates finding positions related to their major. The mean initial salaries reported are in the $35,000 range. The emphasis of the degree, like that of UW-Stout's special mission, is career-focused learning. Due to rapid changes in the field, recent realignment of UW-Stout, Tech Ed faculty, the program was going through a prolonged transition period, which has demonstrably affected students, faculty, and the perceived image of the program. The consultants believe this can be remedied, with support from existing faculty and UW-Stout administration.

III. Process Followed for Current Review:

The PRC Chair met with the dean, program director and chair of the primary department to discuss the review process. The PRC consultants also met with the program director to review the procedures and offer assistance. Data regarding several aspects of the program were collected from students, key instructors within and outside the department, program committee members and program graduates through surveys. The data were analyzed and returned to the program directors and PRC members. The program director then completed the self-study report and presented the report to the PRC. The consultants then wrote the recommendation report. This report was forwarded to the dean for his response. The PRC reviewed the dean’s response, approved the recommendation report and forwarded the report to the Faculty Senate.
IV. Previous Review (April 6, 2004):

The previous PRC review of the B.S. in Technology Education program was conducted during academic year 2003-04. That report was written by Jonna Gjevre and Brian Finder. The committee’s recommendations as well as the applicable responses are submitted below:

Previous Recommendations for Program Director

1. Create a new advisory committee with on-campus technical faculty and good representation of high-school teachers. This committee must meet every semester and be charged with setting goals and achieving results.

   **Response from Program Director:**
   A new advisory committee was formed during the summer of 2003 and 7 meetings were conducted. This committee will be reduced in size and few meetings will be held in an attempt of bringing more formality to the advisory committee process. Once again, these meetings will be held in conjunction with state conference (October and March) to ensure the participation of public school teachers. The program director will invest more time and effort in formalizing the agenda and documenting proceedings.

   **2010 Summation of Consultants:**
   Program Director report indicates that advisory committee consisting of 15 members with a good representation of professionals in the field meets every semester. The concern seems to be fully addressed with every meeting following a general agenda plan, and advisory committee providing crucial input for the program.

2. Prompt the advisory committee to initiate dialogue that addresses uncertainties/conflicts regarding content priorities, high school based delivery methodologies and the philosophy of the field.

   **Response from Program Director:**
   The program director will continue to update the on-campus advisory committee members on the national standards for the study of technology, DPI regulations for teacher licensure and program approval, and NCATE accreditation requirements be continued into the 2004-05 school year. The program director will also begin to share information about current research on effective instruction on current practices in technology education at the middle and high school levels. The dissemination process will make greater use of e-mail to ensure everyone receives this kind of information in small and more frequent intervals. In addition to discussing these issues during advisory committee meetings, the committee members will be informed about other forums where these topics are discussed in depth.

   **2010 Summation of Consultants:**
   Program Director self-study indicates that the concern was fully addressed.

3. Address advisement concerns by raising the number of program advisors and/or increasing the availability of current advisors. One option of addressing this issue would be to extend advisement roles to faculty who are teaching technology-based courses.

   **Response from Program Director:**
   The program director invested at least 93.5 hours during more than 187 one-on-one advisement meetings with technology education majors during the 2003-04 academic year. This figure is down from last year due to the introduction of a Freshman advisor in the fall of 2003. A new technology education faculty member was hired in the spring of 2004 and he will be assigned approximately 60 advisees. Both the Dean and the Coordinating Chair will solicit additional advisors from the pool of education faculty that teach foundations courses and have few, if any, undergraduate advisees. Furthermore, with Dr. Carol Mooney’s help, a second attempt will be made to solicit additional advisors from technical faculty. Lastly, Mr. Byron Anderson’s need to be off campus
supervising student teachers has been reduced for the fall of 2004. Therefore, he should be able to advise students on-campus. Once these new assignments have been made, a member of the clerical staff in the School of Education will update the student advisors on e-scholar.

**2010 Summation of Consultants:**
Program Director self-study indicates that advising responsibilities are now distributed across the faculty, large-group advisement meetings with mandatory attendance during the advisement days. The concern seems to be fully addressed.

4. Continuously maintain open lines of communication with key internal instructors as well as those who are outside of the department. The program director should consider actively soliciting feedback on stakeholder concerns and respond to such concerns in a timely manner through public meetings and/or correspondence.  

**Response from Program Director:**
The program director invested 15.5 hours in face-to-face communication with technical faculty regarding the goals and objectives of the program in light of new expectations from the Department of Public Instruction during the 2003-04 school year. This effort will be continued with during the 2004-05 school year. Furthermore, the program director will make much greater use of e-mail to keep advisory committee members, lead instructors, and program stakeholders informed.

**2010 Summation of Consultants:**
Program Director self-study indicates that "conflicts of opinion about priorities and objectives are endemic" in the field of Technical Education. The Program Director has held advisory board meetings, solicited feedback from various stakeholders, and initiated dialogue regarding program goals, curriculum choices, DPI requirements, and national trends [direct quote from Program Director self-study]. Program Director conducted an impressive data-collection project in order to make data-driven decisions regarding the Program. Connections with professionals in high schools, technical colleges, and other UW-System campuses were reestablished by Program Director.

5. Identify the basis of and subsequently address concerns about curriculum overlap both internal to the program and in relation to the courses from the school of education.  

**Response from Program Director:**
The technical education program, along with all of the other teacher education programs on campus, is preparing for an evaluation by the Department of Public Instruction in the fall of 2004. This effort involves defining and sequencing all of the outcomes that are addressed in all professional and technical courses in the program. This on-going process will uncover any redundancies across classes. The results of this articulation process will be shared with the members of the advisory committee for review.

**2010 Summation of Consultants:**
The concern seems to be partially addressed through revisions to the program curriculum. Student surveys still indicate perceived overlap in content of some courses, both internal and external to the program. Some students view course overlap as beneficial to their learning, while others view the overlap as a weakness of the program.

6. Address stakeholder concerns regarding the minimal rigor of the program, particularly as it relates to the need for core-skill lab competencies (equipment operation and maintenance, welding, fluid power, and wood skills, electronics, safety) and math/physics abilities.  

**Response from Program Director:**
The program director will ask the advisory committee to review the standards for technology education, technology teacher certification, and program accreditation in relation to the topics listed above. This discussion will also include data gathered from student assessments (e.g., student teacher evaluations by cooperating teachers, Praxis II scores). The advisory committee will be asked to inform, evaluate, and ultimately,
approve a revision of the technology education program that they believe best addresses these issues within the context of certification regulations, accreditation standards, university policies, and resource constraints.

**2010 Summation of Consultants:**
The concern is being addressed through course revisions, increase in mathematics/science requirements, and introduction of new courses.

7. Follow up with program web-master to ensure that the Technology Education program plan sheet listed on the Stout website is current.

**Response from Program Director:**
The website for the Technology Education program was reviewed at the time of this report. The program plan sheet in question is the official program plan sheet for the program and it is current. When the program revision that is scheduled for this fall is completed, a new program plan sheet and eight-semester sequence will be posted.

**2010 Summation of Consultants:**
The concern is fully addressed. Program website has current program plan sheets for all students.

8. Consider reducing the number of students enrolled in the program to minimize advisement-related stress as well as competition for available core education/technology courses.

**Response from Program Director:**
According to the Registration and Records Office, enrollment in the program is down to 358 students as of February 25, 2004. Furthermore, due to additional prerequisite requirements imposed on students by the School of Education, competition for core classes has been dramatically reduced. There are still open seats in all the professional courses for those students who fulfill their prerequisite requirements for the summer (e.g., pass all three sections of the Pre Professional Skills Test, establish 2.75 minimum grade point average). The backlog in technical courses was reduced this year due to additional sections being added to the Fall 2004 schedule (e.g., AEC-172, RD-205, INMGT-314). The advisory committee will be asked to review the enrollment in the program relative to school and university resources (e.g., advisors, supply and demand of required classes).

**2010 Summation of Consultants:**
Due to declining enrollment pattern in the program, the concern is no longer relevant.

9. Continue dialog with the CET Department Chair/faculty to resolve course updating-based issues specific to TEC-103.

**Response from Program Director:**
The course in question, TCS-103 Communication and Information Technology, is not currently required in the program. However, CET has revised the course with input from the program director for Technology Education. The next step will be to discuss the status of TCS-304 Communication and Information Systems, its relationship with TCS-103, and the potential of these courses to address both certification and accreditation requirements. Either one or both of these classes will be included in the program revision schedule for Fall 2004. The revision of these courses, along with the program revision, should bring closure to this issue.

**2010 Summation of Consultants:**
The indicated concern has been addressed.

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**Previous Recommendations for Department Chair**

1. Assess the need for increased clerical support for Technology Education program faculty.

**Response from Department Chair:**
There is a shortage of clerical support for all instructional faculty and staff in the School of Education and for program directors, due both to the fact that there is one person serving over thirty instructional faculty/staff, five graduate program directors, and seven undergraduate program directors and SOE faculty and staff being housed in four different buildings. We did restructure that position to be a PA 3 position/person. Additionally SOE will be supporting a part-time LTE to provide additional support. Hopefully, the need for additional classified support will be identified through the review of classified support in the academic division that is being conducted by the provost.

2010 Summation of Consultants: It is not clear that the need for clerical support was assessed in a manner useful to the Technology Education Program.

2. Prompt involvement by all faculty within the Technology Education discipline as well as the SOE to address scheduling concerns.

Response from Department Chair:
There is no known backlog of TECED students unable to get into courses this next year due to insufficient offerings. An analysis of enrollment was done this past year to plan the number of courses needed each term. There are students unable to proceed in the program due to courses restricted to students admitted to education programs. Beginning freshman year, students are advised about the education benchmarks that they must meet to continue in education.

2010 Summation of Consultants: These concerns may have come up again, in the form of student complaints about regular availability of advisors (source: student surveys). Therefore, the freshman advising solution does not seem to have addressed this concern.

Previous Recommendations for Dean

1. Hold the program director accountable for performing administrative responsibilities, including securing adequate student advisement and holding advisory committee meetings.

Response from Dean:
The program director will be requested to submit advisory committee member names by October 1st of each year with established dates of meetings and tentative agenda items for discussion/action. The SOE Coordinating Chair will work with the dean and the program director in distributing advisees among the Technology Education faculty (a new faculty member was hired in Spring 2004) and professional education faculty. This past year, freshman advising was done by the Advisement Office, consequently reducing the number of students needing faculty advisement. In addition, and if needed, technology education content faculty will be asked if they would assist in advising technology education students. The dean will hold regular meetings with the program director to be certain administrative responsibilities are being performed.

2010 Summation of Consultants: A new program director (as of summer 2007) has solved this problem by performing required administrative responsibilities since her appointment as director.

2. Prompt the department chair/faculty to continue the search and screen process for qualified staff, and as needed, provide resource support for staffing needs.

Response from Dean:
The numbers of students enrolled in the program appears to have stabilized. Requirements of new licensing rules have affected the number of students being admitted into teacher education. A new staff member was hired and the chair/faculty have the go ahead to hire another in 2004-05 if needed.

2010 Summation of Consultants: This appears to have been followed successfully. A .5 FTE hire was made in '06, and seems to have fulfilled the staffing needs.
Prompt the department chair/technology education faculty to specifically identify SOE facility deficiencies and, as needed, provide resource support to improve such physical areas.

**Response from Dean:**
Facility and space needs are being worked on by the dean, chair, and technology education faculty. An SOE Access to Learning Laboratory/E-Portfolio Coordinator position for the Technology Education laboratory is under consideration by the provost and SSA Chair. If possible, LTE support for faculty/staff in this area will be in place for next year. The Chair will work with Technology Education faculty to continually monitor space and equipment needs to bring forth to the dean.

**2010 Summation of Consultants:** A funded Lab Mod proposal significantly upgraded the TE facilities, both classroom and lab environments. Some E-Portfolio assistance was added by the SoE. This concern appears to have been addressed.

3. Work with the CTEM Dean to identify strategies that promote effective inter-college faculty involvement as well as curriculum refinement.

**Response from Dean:**
Meetings with the CTEM Dean to identify strategies that promote effective inter-college faculty involvement and curriculum refinement will be held.

**2010 Summation of Consultants:** The current program director has achieved significant inter-college collaborations. This concern has been addressed.

Work with the program director and chair(s) to ensure that stakeholders continue dialog addressing the uncertainties/conflicts regarding content priorities, high school-based delivery methodologies, and the philosophy of the field.

**Response from Dean:**
The program director will be asked to have technical faculty, public school teachers and administrators, and business and industry personnel on the program committee. These meetings must have a time for discussion of current needs, trends, philosophies, and content priorities of the field to keep our program current and on target with the technology education field. Meetings will be a means of keeping all informed and of seeking input from committee members.

**2010 Summation of Consultants:** This was a very difficult concern to address, but its solution is in progress. The current program director has amassed significant data on these topics and they are being used to inform future directions for the program.

V. Current Year (2009-2010) Program Review:

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<tr>
<th>Program Strengths</th>
<th>Source</th>
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<tbody>
<tr>
<td>1. Recently upgraded facilities</td>
<td>PD self-study</td>
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<td>2. All faculty have PhD in the field, with diverse educational backgrounds and perspectives</td>
<td>PD self-study, student surveys</td>
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<td>3. Active student organization in the program that in particular works on bringing various events to UW-Stout campus</td>
<td>PD self-study</td>
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<td>4. Productive collaboration with various UW-System campuses, technical colleges, and other institutions</td>
<td>PD self-study</td>
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<td>5. Dual certification in Technology and Science Education (offered since Fall 2009)</td>
<td>PD self-study</td>
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7. The program is recognized as an Institutional Leader in the Field

8. Dr. Sylvia Tiala, program director, accomplishes transformative work in a few years, with limited resources.

9. More than half of surveyed students agree that instructors in the program are accessible, provide current and relevant information.

10. Almost 2/3 of surveyed students agree that library has adequate resources, and coursework enhances their written communication skills

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<th>Issues of Concern</th>
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<td>1. About 1/3 of student respondents doubt that they would choose the program if they have to do it over again. About 1/3 of student respondents believe that their adviser is not accessible on a regular basis. Only 7% of 2006 graduates rate Academic Advising in their program at 4 or above level out of 5, which is a significant drop from 67% of 2000 graduates giving the same 4 or above rating.</td>
<td>Student Surveys, Follow-up surveys</td>
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<td>2. Clerical Support needed for the program (Project Lead the Way assistance, ePortfolio support for students, and faculty, etc)</td>
<td>PD self-study, Student Surveys</td>
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<td>3. There is a need for maintenance and support plan for lab equipment and facilities, as well as a sustainable plan for replacement of obsolete equipment.</td>
<td>PD self-study, student surveys</td>
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<td>4. Funds for travel, professional meetings, and for professional development are needed</td>
<td>PD self-study</td>
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<td>5. Students would like more pedagogy training, in order to successfully blend lab work, understanding of concepts, and skills development in their future teaching.</td>
<td>Student Surveys</td>
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<td>6. Unprofessionally negative (and often inappropriate) student attitudes towards faculty in the program</td>
<td>Student Surveys</td>
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<td>7. Due to Stout’s history, recent radical changes in the Technical Education field, and the breadth of Tech Ed field itself, there is an ambiguity as to what the program is and what the program is not. This ambiguity is further amplified by lack of support for the effective marketing of the program.</td>
<td>PD self-study, student surveys, advisory committee surveys, key instructor surveys</td>
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</table>
8. Lack of effective collaboration between program faculty members in presenting Technical Education program image, and in building networking relations with professionals in the state, organizations, and stakeholders

| PD self-study, student surveys, advisory committee surveys |

9. Project Lead The Way is a national program with the ultimate goal to increase the quantity and quality of graduating engineers. UW-Stout, as a polytechnic institution, is a natural place to train future engineers, while Technical Education program is a natural place to train High School teachers who would implement Project Lead the Way courses. As an institutional leader in technical education, Stout has to seriously consider committing funds or raising funds in order to provide a long-term support for faculty and student participation in the Project Lead the Way Wisconsin initiative.

| PD self-study, Student Surveys |

10. Due to ever changing nature of technical education field, there seems to be a constant need for course revisions and adjustments to program requirements. While those changes are necessary to keep the program relevant, the current process for program revision seems to cause quite a bit of frustration and confusion among students. Program requirements were modified in 2005, 2007, and 2009, with yet another revision on its way.

| Student surveys, PD self study |

**Recommendations for the Program Director**

Sylvia Tiala, Program Director

1. Regarding issue of concern #1, work with the Director of the School of Education and with the Dean of the College of Education and Health and Human Services to improve and clarify the student perception of the program (e.g., displaying success stories of recent Technology Education students, quotes from student exit interviews, visits of recent program graduates, etc.).

2. Regarding issue of concern #2, work with the Director of the School of Education and with the Dean of the College of Education and Health and Human Services to identify any possible ways to get adequate clerical support for the program.

3. Regarding issue of concern #3, work with the Director of the School of Education and with the Dean of the College of Education and Health and Human Services to develop a maintenance and support plan, and the plan to replace obsolete lab equipment.

4. Regarding issue of concern #4, work with the Director of the School of Education and with the Dean of the College of Education and Health and Human Services to identify and find any additional sources of funds for travel and professional development of the faculty.

5. Regarding issue of concern #5, work with the Faculty and the Director of School of Education to identify and implement any necessary changes to curriculum.
6. Regarding issue of concern #6, work with Faculty and with Director of the School of Education to promote professional behavior and critical thinking skills in students.

7. Regarding issue of concern #7, work with the Director of the School of Education and with the Dean of the College of Education and Health and Human Studies to seek the funds and other resources necessary for effective marketing of the program that sends a clear message about the program to the potential students.

8. Regarding issue of concern #8, work with the Faculty, with the Director of the School of Education and with the Dean of the College of Education and Health and Human Studies to create and maintain networking relations with professionals in the field, and stakeholders; work with the faculty and students on making clear the sources and reasons behind the changes in policies implemented within the program.

9. Regarding issue of concern #9, work with the Director of the School of Education and with the Dean of the College of Education and Health and Human Studies to find an adequate support for Project Lead the Way implementation. Travel funds for faculty to attend retraining and other conferences might be required. Stipends (or release time) for faculty to review, assess, and document student progress towards Project Lead the Way certification. If it is not possible to support the project, considering eliminating Project Lead the Way from program requirements could be an option.

10. Regarding issue of concern #10, work with the Director of the School of Education and with the Dean of the College of Education and Health and Human Studies to find a more streamlined way to update program requirements.

**Recommendations for the Director of the School of Education**

*Dr. Jacalyn Weissenburger, Ph.D.*

*Director, School of Education*

1. Regarding issue of concern #1, work with Program Director and with the Dean of the College of Education and Health and Human Services to improve and clarify the student perception of the program (e.g., displaying success stories of recent Technology Education students, quotes from student exit interviews, visits of recent program graduates, etc.).

2. Regarding issue of concern #2, work with Program Director and with the Dean of the College of Education and Health and Human Services to identify any possible ways to get adequate clerical support for the program.

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5. Regarding issue of concern #5, work with the Faculty and Program Director to identify and implement any necessary changes to curriculum.

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10. Regarding issue of concern #10, work with Program Director and with the Dean of the College of Education and Health and Human Services to find a more streamlined way to update program requirements.

**Recommendations for the Dean of the College of Education and Health and Human Studies**

Mary Hopkins-Best, Dean

1. Regarding issue of concern #1, work with the Program Director and with the Director of the School of Education to improve and clarify the student perception of the program (e.g., displaying success stories of recent Technology Education students, quotes from student exit interviews, visits of recent program graduates, etc.).

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