## **UNIVERSITY FACULTY SENATE FORMS**

#### Academic Program Approval

This form is a routing document for the approval of new and revised academic programs. Proposing department should complete this form. For more information, call the Faculty Senate Office at 831-2921.

| Submitted by: Fred T. Hofstetter  | phone number               | x8164          |  |  |
|---|----------------------------|----------------|--|--|
| Department:School of Education  | email address _            | _fth@udel.edu  |  |  |
| Date:October 12, 2009   |                            |                |  |  |
| Action:Add Minor  |                            |                |  |  |
| (Example: add major/minor/concentration, delete major major/minor/concentration, academic unit name change, request |                            |                |  |  |
| Effective term:10F  |                            |                |  |  |
| (use format 04F, 05W)   |                            |                |  |  |
| Current degree  |                            |                |  |  |
| (Example: BA, BACH, BACJ, HBA, EDD, MA, MB  | A, etc.)                   |                |  |  |
| Proposed change leads to the degree of:   |                            |                |  |  |
| (Example: BA, BACH, BACJ, HBA, EDD, MA, MBA, etc.)  |                            |                |  |  |
| Proposed name:Minor of Educational Technology (MNET)  |                            |                |  |  |
| Proposed new name for revised or new major / minor / concentration / academic unit<br>(if applicable)               |                            |                |  |  |
| Revising or Deleting:   |                            |                |  |  |
| Undergraduate major / Concentration:  |                            |                |  |  |
| (Example: Applied N   | Music – Instrumental de    | egree BMAS)    |  |  |
| Undergraduate minor:  |                            |                |  |  |
| (Example: African Studies, Business Ad  | ministration, English, Lea | dership, etc.) |  |  |
| Graduate Program Policy statement change:   |                            |                |  |  |
| ( <b>Must attach</b> your Gr  | aduate Program Policy Sta  | tement)        |  |  |
| Graduate Program of Study:  |                            |                |  |  |
| (Example: Animal Science: MS Animal Science: PH   |                            |                |  |  |
| Graduate minor / concentration:   |                            |                |  |  |

Note: all graduate studies proposals must include an electronic copy of the Graduate Program Policy Document, highlighting the changes made to the original policy document.

# List new courses required for the new or revised curriculum. How do they support the overall program objectives of the major/minor/concentrations?

(Be aware that approval of the curriculum is dependent upon these courses successfully passing through the Course Challenge list. If there are no new courses enter "None")

The following seven courses are going through the Course Challenge process. Of these, EDUC 411, EDUC 429 and EDUC 469 are new, and the other four are assigning permanent numbers to courses that have been offered several times as Special Topics in Educational Technology.

- EDUC 411: Introduction to Educational Technology. Comprehensive overview of the field of educational technology. Aligns the principles of how people learn with technological tools proven effective in achieving results across the disciplines. Includes techniques for influencing student interaction, content presentation and visualization, community building, and assessment. Identifies and compares national and international standards frameworks and introduces the knowledge base of educational technology. Surveys the field's instructional design and development tools and gets the student started creating a Web portfolio containing the student's plans for using technology to meet national standards, workplace needs, and/or professional development goals.
- EDUC 421: Internet Technologies. Presents the Internet from a dynamic workplace perspective that considers how the network is evolving and reflects on how emerging technologies will empower society to do more with the Internet. Provides the conceptual background and the online skills needed for students to understand the core Internet technologies, Web page design and authoring, and networking fundamentals. Provides a rich array of labs and optional assignments with which students can tailor this course to meet particular needs and develop technology plans.
- EDUC 438: Learning Technologies Across the Curriculum. Develops a deep understanding of technology integration across the various content areas. Defines the concept of technological pedagogical content knowledge (TPACK) and negotiates the relationships between technology, pedagogy, and content. Builds an understanding of how technology can support active and constructive learning. Provides the opportunity to explore a variety of technological tools and discuss their applications across the disciplines of literacy, mathematics, science, arts, humanities, and social studies. Incorporates current trends toward interdisciplinary instruction and provides readings and examples that cross discipline boundaries. Considers societal issues related to the use of technology in educational settings, such as the digital divide, gender and technology, and other socioeconomic factors. Enables participants to develop technology-enhanced curriculum units for use in the students' classrooms or workplaces.
- EDUC 450: Technology and Cognition. Presents major theories of learning and instruction and discusses their relationship to the use of computers in education. Emphasizes learning sciences theories, such as cognitive and socio-cognitive theories, and considers their role in the design and use of educational technology in real world settings. Introduces computer-based learning environments and instructional interventions developed within a learning sciences framework. Enables participants to apply learning sciences theories in the design of technology enhanced instruction. Readings include theoretical expositions, empirical studies reported in the scholarly literature, and case studies from the complex world of the classroom.
- EDUC 469: eLearning. Surveys the field of eLearning, identifies the leading learning management systems, and reviews the major trends and issues related to using eLearning to improve educational results. Reflects on the role of eLearning in the National Education Technology Plan. Identifies interoperability standards used in K-12, post-secondary, government, and industrial

applications. Provides design and development experience creating online learning modules for a major open source eLearning system.

- EDUC 492: Educational Technology Capstone. A service learning practicum in which participants form teams to design and develop an educational technology solution to an authentic problem in an actual school or workplace. Models metacognitive assessment by having each team member log project contributions in an online reflective blog used for grading purposes. Forms a learning community in online discussion forums and a wiki in which participants create a shared knowledge base of best practices and tools of Web design.
- EDUC 439: Topics in Educational Technology. In-depth study of a major problem in educational technology. Problems to be studied will vary with each offering. In the past, topics have included Internet Technologies, Technology and Cognition, Learning Technologies Across the Curriculum, ePortfolio Web Design, Technology Planning, K-12 Technology Integration, Introduction to Networking in Education, Data-Driven Web Design, and Applications of Computers in Teaching Writing to K-12 Students. Students may take EDUC 439 more than once as long as the topic is different each time.

# Explain, when appropriate, how this new/revised curriculum supports the 10 goals of undergraduate education: <u>http://www.ugs.udel.edu/gened/</u>

The Minor in Educational Technology supports the 10 goals of undergraduate education in the following ways:

- Goal #1 is to "attain effective skills in oral and written communication, quantitative reasoning, and the use of information technology." As articulated in the national educational technology standards, the minor in educational technology aligns with Goal #1 by having students create multimedia learning modules that use technology to communicate effectively through onscreen text and graphics with appropriately designed uses of interactive audio and video. (AECT 2.4, ISTE 2.a)
- Goal #2 is to "Learn to think critically to solve problems." Students learn to analyze contexts (AECT 1.1.1) and plan strategically (ISTE 1.b) when using technology to solve educational problems. In the project-based capstone course in service learning with technology, students apply what they learn in their coursework to solving real-life problems. (ISTE 3.d)
- Goal #3 is to "be able to work and learn both independently and collaboratively." In the Educational Technology Minor, students work independently to learn and master the educational technology methods and techniques that each student will contribute as a member of a service learning team in the capstone course. The course environment is rich in tools for independent learning (e.g., online tutorials and just-in-time videos) and collaboration (e.g., forums, blogs, and wikis). (AECT 4, ISTE 3.b)
- Goal #4 is to "engage questions of ethics and recognize responsibilities to self, community, and society at large." Copyright, fair use, and accessibility are among the societal issues addressed by coursework in the Educational Technology Minor. (AECT 3.4, ISTE 4.a)
- Goal #5 is to "understand the diverse ways of thinking that underlie the search for knowledge in the arts, humanities, sciences and social sciences." The field of educational is rich in its diversity of approaches. Students learn about the diversity of these approaches and study the conditions under which they have been proven to work. (AECT 1.1.1, AECT 1.4, ISTE 4.b)
- Goal #6 is to "develop the intellectual curiosity, confidence, and engagement that will lead to lifelong learning." Due to the fast pace of technological change, professional development is critically important in the field of educational technology. The Minor in Educational Technology will engage students with the field's professional resources and motivate students to remain

current by using the technology itself to keep up with new developments and techniques for improving educational results. (AECT 5.4, ISTE 5.c)

- Goal #7 is to "develop the ability to integrate academic knowledge with experiences that extend the boundaries of the classroom." This is the field's current theme and nationwide trend as the United States integrates eLearning into the educational infrastructure. Educational Technology minors experience these techniques throughout the coursework and apply them in the capstone courses. (AECT 3.2, ISTE 3.a)
- Goal #8 is to "expand understanding and appreciation of human creativity and diverse forms of aesthetic and intellectual expression." As exemplified by the popularity of YouTube, the Internet has emerged as a worldwide medium for multimedia expression. The courses in Internet Technologies and Multimedia Literacy enable educational technology minors to become creators, not just consumers, of media on the Internet. (AECT 1.4, ISTE 2.6)
- Goal #9 is to "understand the foundations of United States society including the significance of its cultural diversity." By studying the national plan for educational technology, students learn how eLearning has emerged as a key component of the educational infrastructure in the United States. Socioeconomic issues of equity and the digital divide are important topics covered in the coursework. Students learn about U.S. laws mandating Web accessibility for learners with special needs. (AECT 3.4, ISTE 4.c)
- Goal #10 is to "develop an international perspective in order to live and work effectively in an
  increasingly global society." The Internet has no borders. Through the social networking tools
  integrated throughout the coursework, educational technology minors learn to make use of
  technologies developed globally and experience how communally developed tools, such as
  Sakai, emerge from collaboration of the international community. Students will understand the
  impact of educational technology across a broad spectrum of education and training locally,
  nationally, and globally. (AECT 3.2, ISTE 4.d)

#### Identify other units affected by the proposed changes:

(Attach permission from the affected units. If no other unit is affected, enter "None")

None.

#### Describe the rationale for the proposed program change(s):

(Explain your reasons for creating, revising, or deleting the curriculum or program.)

As technology pervades the mass market and grows in importance in virtually every field, learning how to use technology to improve results has become strategically important across all sectors of education and training. By being open to all students enrolled in Bachelor's degree programs at the University of Delaware, the Minor in Educational Technology provides career opportunities for students to specialize in using new media and the Internet to have a positive effect on teaching and learning. The coursework provides students with a theoretical grounding and practical experience using technology to improve teaching and learning across a broad spectrum of education and training. Although the courses are technologically rich, the program extends beyond tools by aligning with the national educational technology standards and immersing students in the knowledge base of researched best practices for improving results. Thus, the program not only teaches technological methods and techniques, but in addition, it emphasizes theories of teaching and learning that support these methods. Students learn to assess needs, define problems, design solutions, develop environments, plan implementations, track student progress, and evaluate results. In the service-learning capstone course, students form teams to develop a solution to a real-world educational problem in a local school or workplace. Throughout the program, students create and add to their Web portfolio artifacts demonstrating the manner in which students meet the national educational technology standards.

#### **Program Requirements:**

(Show the new or revised curriculum as it should appear in the Course Catalog. If this is a revision, be sure to indicate the changes being made to the current curriculum and **include a side-by-side comparison** of the credit distribution before and after the proposed change.)

<u>Minor in Educational Technology</u>: Learning how to use technology to improve results has become strategically important across all sectors of education and training. Therefore, this Minor in Educational Technology is open to all students in any University bachelor's degree program by completing the courses listed below. This coursework provides students with a theoretical grounding and practical experience using technology to improve teaching and learning in real-world situations. Although the courses are technologically rich, they extend beyond tools by immersing students in the knowledge base of researched best practices for improving results. In the service-learning capstone course, students form teams to develop a solution to a real-world educational problem in a local school or workplace. By the end of the Minor, students will have created a Web portfolio demonstrating the manner in which they meet the national educational technology standards. In order to be eligible to add the Minor, students must have completed 28 credits at the University of Delaware.

EDUC 411: Introduction to Educational Technology EDUC 421: Internet Technologies EDUC 469: eLearning EDUC 492: Educational Technology Capstone

Electives (choose 2) ..... 6 credits

EDUC 438: Learning Technologies Across the Curriculum EDUC 450: Technology and Cognition EDUC 485: Multimedia Literacy EDUC 439: Special Topics in Educational Technology

### **ROUTING AND AUTHORIZATION:** (Please do not remove supporting documentation.)

| Department Chairperson                          |              | Date                 |
|---|--------------|----------------------|
| Dean of College                                 |              | Date                 |
| Chairperson, College Curriculum Committee       |              | _Date                |
| Chairperson, Senate Com. on UG or GR Studies    | ;            | Date                 |
| Chairperson, Senate Coordinating Com            |              | Date                 |
| Secretary, Faculty Senate                       |              | Date                 |
| Date of Senate Resolution                       |              | Date to be Effective |
| Registrar                                       | Program Code | Date                 |
| Vice Provost for Academic Affairs & Internation | nal Programs | Date                 |
| Provost   |              | Date                 |
| Board of Trustee Notification                   |              | Date                 |
| Revised 02/09/2009 /khs                         |              |                      |

## Audience

There are two audiences for the Minor in Educational Technology. First are undergraduates preparing for careers as educational professionals and teachers in K-12 schools. Second is the broader community of students preparing for careers in government, business, and industry for which eLearning has become the primary mechanism for continuing education and ongoing professional development. In all of these settings, employers need candidates who can improve results and make the workplace more effective. Students who complete this Minor may have an advantage when seeking employment in schools or companies that value the candidate's ability to apply the principles of how people learn to design effective learning environments.

As noted above, the Minor in Educational Technology is open to all students enrolled in University of Delaware Bachelor's degree programs. Please note, however, that completion of the minor does not lead to teacher certification. A minimum grade of C- is required in all courses.

### **National Standards**

The Minor in Educational Technology aligns with national standards of two specialty program associations. For students planning careers in K-12, the program aligns with International Society for Technology in Education (ISTE) standards. For the broader community of students planning careers in higher education, government, and industry, the program aligns with Association for Educational Communications and Technology (AECT) standards. During the program, each student creates a portfolio consisting of artifacts and reflections exemplifying how the student aligns with the standards appropriate for the student's career track. This portfolio not only demonstrates what the student experienced in the program, but upon graduation, it may prove useful when the student applies for jobs. As reported by the National Survey of Student Engagement (NSSE), employers are more persuaded by examples of projects than scores on exams. NSSE also found that employers rated teamwork higher than tests. That is why the program's capstone course has students form teams and learn to work well with others when cooperating on educational improvement projects.

## Eligibility

The Educational Technology Minor may be requested by any full-time, matriculated student who has completed 28 credits at the University of Delaware prior to applying.

#### **Recommended Course Sequencing**

Students minoring in educational technology should take the introductory course (EDUC 411) first and the capstone (EDUC 492) last. In between, the courses can be taken in any order. The rationale is that in the introductory course, students become grounded in the national educational technology standards and create a portfolio framework for accumulating standards-based artifacts throughout the coursework. In the capstone course, students form teams to apply their educational technology knowledge and skills to solving an educational problem in their intended workplace. In this project-based capstone course, students practice the community building and teamwork skills rated so highly by employers in the National Survey of Student Engagement.

# **Hybrid Course Format**

The Educational Technology Minor offers all of its courses in a hybrid format. Hybrid means that a course uses both online and face-to-face instruction. According to the U.S. Department of Education, there is considerable research suggesting that hybrid courses produce more effective learning than either online or classroom instruction alone (see www.ed.gov/rschstat/eval/tech/evidence-based-practices/finalreport.pdf).

In the hybrid environment created for the Educational Technology Minor, each course has a public Web site and a password-protected Sakai site. The public site provides access to resources that are publicly available, such as videos, reports, tutorials, and best practices. The Sakai site hosts blogs, forums, wikis, and assignments that students submit for grading purposes. During each academic term, all students must attend an educational technology forum. Typically held on Monday evenings, the forum features guest speakers followed by refreshments and an "open forum" for students to bring up any program-wide issues needing to be discussed.

## **Portfolio Assessment**

Throughout the Minor in Educational Technology, assessment is project based. From the first course (EDUC 411) in which students create their standards-based portfolio framework, to the capstone course (EDUC 492) in which students form teams to solve real-world problems in a local school or workplace, students are judged not on how much they can memorize, but rather, assessment is based on what students actually do in the projects they accumulate into their portfolio throughout the coursework. Students begin creating the portfolio when they enter the program, which culminates in the capstone project at the end.

Students have a wide choice of tools with which to create their portfolio. Students may create it as a blog or wiki, or students can author it with PowerPoint, Nvu, Dreamweaver, or any tool capable of creating Web-based interactive multimedia. Students can also choose to author their portfolio as a Sakai Project site. For all of these options, just-in-time videos are available at the program's Web site, which students can use to learn the tool of their choice.

Completion of the portfolio is a requirement of the capstone course (EDUC 492) in which the instructor assesses the portfolios to ensure that students align the artifacts with the framework and adequately reflect on what they learned and experienced.

## **Facilities and Resources**

The University of Delaware offers its faculty and students one of the nation's finest technological infrastructures. As winner of the 1994 CAUSE Excellence in Networking Award, UD was an early adopter of networking technology. From that early position of prominence, UD has continued to improve and expand its award-winning network. All classrooms are wired for high-speed Internet access and are equipped for multimedia computer projection. Wireless hotspots cover the campus, and state-of-the-art computer labs make computer access ubiquitous. The Morris Library, which belongs to the Association of Research Libraries (ARL) that comprises the 124 research libraries of North America, houses one of the country's richest print and electronic research collections enhanced by a state-of-the-art multimedia

production facility to which all faculty and students have access. During their coursework, students minoring in educational technology learn how to search the Morris Library databases and read scholarly reports of researched best practices that inform the design of effective learning environments. Copyright, fair use, and accessibility are important themes reinforced by Morris Library policies and staff.

The University of Delaware houses Macintosh, PC, and Sun Ray computer labs that are freely available to students and teachers. An increasing number of students, however, are acquiring laptops to use in lieu of desktop computers in the campus labs. Students with laptops appreciate the UD network registration infrastructure, which enables the laptop's MAC address to be registered for use on campus with the same level of network access as computers in the labs. Through MAGPI, the UD network connects to Internet 2.

Powering the campus e-learning infrastructure is Sakai, which is open source software obtained from sakaiproject.org. The University of Delaware was one of the founding members of Sakai and the IMS project that preceded it. The UD Sakai server is housed in the University of Delaware's Chapel Street Computing Center, where the files are backed up frequently and religiously by an infrastructure designed to survive power outages and recover from natural disasters we hope will never happen. The Sakai server hosts the eLearning site for students minoring in educational technology. In addition, UD provides each student with a computer account including the Web space in which students publish projects to the Web. Students have access to the Student Multimedia Design Center, which makes available state-of-the-art hardware, software, editing, and recording facilities, including portable equipment that the SMDC can loan including cameras, microphones, and lighting kits.

#### **Relationship to Other Programs**

In the Educational Technology Minor, courses are dual-listed at the 400 and 600 levels. Undergraduates take the sequence of courses at the 400 level and have their assignments evaluated based on the field's entry-level rubrics. The graduate version of the Multimedia Literacy course (EDUC 485/685) is an elective in the Master of Instruction and the Master of Health Promotion. The undergraduate version of the Multimedia Literacy course is also offered as COMM 486, which is an elective in the Minor in Interactive Media and a requirement in the Minor in Advertising. We do not believe there is any other overlap or conflict with any other programs. As noted above, completion of this minor does not lead to teacher certification. ETE majors who add this minor will need to take all of its 18 credits in addition to the rest of their ETE program requirements. *Note:* Unlike many other states, the State of Delaware does not require nor provide certification in educational technology.

# Scheduling

The schedule below demonstrates the feasibility of offering the Minor in Educational Technology without needing to hire additional faculty.

| Fall   | EDUC 411/611 | Mouza/Hofstetter    |
|--------|--------------|---------------------|
|        | EDUC 438/638 | Mouza               |
|        | EDUC 485/685 | Hofstetter          |
|        | EDUC 469/669 | Cavalier/Hofstetter |
| Winter | EDUC 439/639 | Hofstetter          |
| Spring | EDUC 421/621 | Hofstetter          |
|        | EDUC 450/650 | Mouza               |
|        | EDUC 485/685 | Hofstetter          |
|        | EDUC 492/692 | Mouza/Hofstetter    |
|        | EDUC 439/639 | Klein               |
| Summer | EDUC 421/621 | Hofstetter          |
|        | EDUC 439/639 | Klein or Mouza      |

## **Letters of Support**

The proposal concludes with letters of support from the Morris Library, Information Technology, Arts & Sciences, Secondary Education, Teacher Education, Medical Technology, Accounting & Information Systems, and the College of Earth, Ocean, and Environment.



UNIVERSITY OF DELAWARE LIBRARY

OFFICE OF THE VICE PROVOST AND MAY MORRIS DIRECTOR OF LIBRARIES University of Delaware Newark, Delaware 19717-5267 Phone: 302/831-2231 Fax: 302/831-1046 Library Web: www.udel.edu/library

October 23, 2009

#### Memorandum

From:

To: Fred T. Hofstetter Professor School of Education

Auran Byntison Susan Brynteson

Vice Provost and May Morris Director of Libraries

I am responding to your request to provide a statement about your proposal to create a minor in Educational Technology.

The University of Delaware Library is a member of the Association of Research Libraries which means its collections are broadly based and comprehensive. Both the collections and electronic resources are well able to support the new undergraduate minor. The University of Delaware Library is home to a superb print and electronic research collection that is enhanced by a state-of-the-art multimedia production center available to all faculty and students.

I would be pleased to respond to any questions.

SB/nb

From: Carl Jacobson: University of Delaware [mailto:cwj000@gmail.com]
Sent: Friday, October 23, 2009 4:42 PM
To: Fred Hofstetter
Subject: Re: Fred Requests Brief Statement of Support

Fred, I wish to offer my strongest statement of support for your proposed Minor in Educational Technology. Your proposal outlines a well-crafted offering that is long overdue. I started my own career as a K-12 mathematics teacher and saw computing technology find its way to the classroom in the early '70s. The progress we've witnessed since then has been astounding. And, in recent years, the technology impact has actually been overwhelming.

When I got my start, the dream was the application of technology to assist the teaching effort. Today, nearly everyone is using technology on a daily basis as a key to learning. Whether is learning how to cook a meal, or manage personal finances or solve quadratic equations. Most of us take the role of multimedia, the Internet and the Web for granted and don't dwell on the realization that we have at our fingertips incredible learning resources... and we're all becoming active learners.

Its easy to see the value of this offering to those in teacher training programs, but I'm particularly excited about the prospect of opening this to all undergrads. We'll all continue to feel the impact of technology on our own learning experiences, but aren't we all "educators" at one time or another, at work or at home as we travel through life?

Your plan is thoughtful and comprehensive and shows the touch of a true master in the field. If your hard work, commitment and research over many years leads to successful adoption of this minor, you will be proud of the many students who advance their knowledge.

Good job. cj

From: Doren, Douglas J. [mailto:doren@art-sci.udel.edu]
Sent: Friday, October 23, 2009 5:14 PM
To: 'Fred Hofstetter'
Cc: Watson, George H.
Subject: RE: Fred Requests Brief Statement of Support

Dear Fred,

I am writing to express my support for the Minor in Educational Technology. As technology has become widely available in K-12 education, it is critical to develop a cadre of people specifically trained in the effective use of technology in these settings. By giving students a broad understanding of the available technologies, and training them to understand the research literature on effectiveness of different approaches, this major will give students from other majors valuable skills to foster student success.

Sincerely,

Doug

Doug Doren

Associate Dean for Research, College of Arts & Sciences Interim Associate Dean for the Natural Sciences Professor, Department of Chemistry and Biochemistry University of Delaware From: Jack Baroudi [mailto:baroudi@lerner.udel.edu]
Sent: Monday, October 26, 2009 10:50 AM
To: Fred Hofstetter
Cc: Diane Wright
Subject: Re: Fred Requests Brief Statement of Support

Hi Fred-

I am pleased to offer my support of the Educational Technologies minor. This minor will have broad appeal and I would certainly recommend it to our students in the MIS major as well as for any Business student. The delivery of efficient and effective training and development is a major corporate concern and more and more companies are turning to e-learning as a solution. This minor will help prepare our students to enter careers in this speciality area as well as provide them with a broader understanding of the various ways technology can be used to impact organizations.

Please let me know if I can provide anything additional.

Thanks JB ------

Jack Baroudi, Ph.D. Professor of Management Information Systems

Lerner College of Business and Economics University of Delaware 213 Purnell Hall Newark DE, 19716

phone: 302-528-1505

baroudi@udel.edu

From: Pika, Joseph [mailto:jpika@art-sci.udel.edu]
Sent: Monday, October 26, 2009 11:20 AM
To: 'fth@UDel.Edu'
Subject: Minor in Educational Technology

Fred,

I heartily support the proposed minor in Educational Technology. Secondary Education students, whose programs I directly oversee, could certainly benefit from broader and deeper exposure to instructional technology than they now receive in their programs. Responses from both cooperating teachers and students to surveys assessing the programs indicate that technology is an area where our programs need improvement. I'm confident that creating a minor will put us on the path to making progress.

Thanks for taking this initiative.

Joseph A. Pika James R. Soles Professor Interim Associate Dean for Social Sciences College of Arts & Sciences University of Delaware 302-831-3647 From: Vukelich, Carol [mailto:vukelich@UDel.Edu] Sent: Monday, October 26, 2009 1:17 PM To: fth@UDel.Edu Subject: Minor in Education Technology.

I write to express my strong support for the Minor in Educational Technology. With the growth in technology, it's very important for every teachers to know about what's available –and what's effective with which children/students. It will be very helpful for schools to have a cadre of teachers, as opposed to one education technology expert, specifically trained in the effective use of technology in classroom settings. I see this minor being very attractive to candidates in a variety of programs. They will exit the minor with a rich understanding of the available technologies and know the research literature on each technology's effectiveness as a tool to enhance child/student learning. The minor provides an exciting new option not only for School of Education professional education candidates but also for candidates in professional education programs across the University.

Carol Vukelich Hammonds Professor in Teacher Education Director, Delaware Center for Teacher Education 200 Academy Street | Newark, DE 19716

Office Phone: 302.831.1657

From: Newton, Franklin A. [mailto:fanewt@UDel.Edu]
Sent: Monday, October 26, 2009 1:01 PM
To: Fred Hofstetter
Subject: Minor in Educational Technology-Statement of Support

Fred-

I write in support of the proposal for an undergraduate minor in Educational Technology. I have reviewed the checklist for the proposed minor and think that it will serve our students well.

In the College of Earth, Ocean, and Environment, we have undergraduates training to be Earth Science teachers and Geography teachers, this minor will assist them in giving them skills that many entering the teaching field presently lack. While they are currently highly sought after candidates, this skill set will make them even more marketable.

Additionally, our students in Geography, Geology, Environmental Studies and Environmental Science will also benefit from the minor in Educational Technology. These students are entering fields that are highly technical and globally situated. It is not uncommon for our students to need to connect with colleagues and classmates in various locations throughout the globe and share information and get training on projects and equipment through online, asynchronous learning. The minor assists them both through the hybrid course delivery method as well as providing the technical understanding of developing elearning methods along with the theoretical understanding of the benefit and effectiveness of new technologies as educational delivery systems.

I look forward to seeing the minor up and running. If you need additional information from me, please do not hesitate to ask.

Franklin A. Newton Assistant Dean College of Earth, Ocean, and Environment <u>www.ceoe.udel.edu</u> 111 Robinson Hall 302.831.6295 (ph) 302.831.4389 (fx)

CEOE is dedicated to advancing the knowledge, wise use, and understanding of earth, ocean, and atmospheric resources.

**DISCOVER OUR WORLD!** 

From: Don Lehman [mailto:dlehman@UDel.Edu] Sent: Sunday, October 25, 2009 10:02 AM To: Fred Hofstetter Subject: Education technology minor

Fred, I strongly support and endorse the development of an undergraduate minor in educational technology. The application of technology is important in any curriculum. When used appropriately, technology can aid student learning and interaction with instructors and peers. The minor will be of benefit to the students' education.

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Don Lehman Ed.D., MT(ASCP), SM(NRM) Dept. of Medical Technology University of Delaware From: Tom Johnston [mailto:johtom@gmail.com]
Sent: Friday, October 23, 2009 10:42 PM
To: Fred Hofstetter
Cc: Cihan Cobanoglu; Laura Glass; Pika, Joseph; Nancy Brickhouse; John Madsen; havidan@UDel.Edu; Vukelich, Carol; David Saunders; Don Lehman; doren@art-sci.udel.edu; baroudi@lerner.udel.edu
Subject: Re: Fred Requests Brief Statement of Support

#### Dr. Hofstetter:

Thank you for the privilege of providing input to this late, but much needed Minor. This proposed Minor demonstrates the wise and comprehensive convergence of Emerging Educational Technology. I have worked with emerging technologies for over 40 years in the Information Technology and Management Information Systems. [The last 15 years I have encouraged and embraced this same Educational Technology in my classroom. The Educational Technology Minor will cause an "Ah Hah" and "What If" explosion of ideas from the creative minds of our teachers and future teachers. I have experienced in an advisory capacity, the use of Educational Technology while working as paraprofessional in Red Clay School District, New Castle County, Delaware! Unlike we dinosaurs, the last five or more classes of matriculated teachers have embraced this technology in the same way we embraced the invention of television. I wish you and your colleagues great success and fun with this new Minor!

Tom Johnston,

Accounting and Information Systems, 302-388-9971, johnstont@lerner.udel.edu