Date: Tue, 6 Dec 1994 12:27:32 -0800 (PST) From: "John W. Marvin" <marvinj@elwha.evergreen.edu> To: sth@elwha.evergreen.edu Subject: BS degree

It has been suggested they we take advantage of the current Curriculum Planning process to re-think our BS degree. A number of STH faculty are finding it a bother on the one hand, and more importantly, not a real BS in many cases: e.g., we are granting BS's to people who have had no calculus. So perhaps we should either abandon it or revise the curriculum to strengthen it. The latter implies a lot of changes in the way we teach, so getting rid of it is attractive. The old argument for the BS had to do with hiring practices in the Wash. State government. The BS is still favored, but I don't have any data as to whether our BS grads are experiencing any real advantage in the job market.

John M

Date: Tue, 6 Dec 1994 12:46:07 -0800 (PST) From: Les Wong <wongl@elwha.evergreen.edu> To: "John W. Marvin" <marvinj@elwha.evergreen.edu> Cc: sth@elwha.evergreen.edu Subject: Re: BS degree

I look forward to the discussion. I am not a fan of the B.S. so align me with the proper constellation. Not only is calculus the issue but the absence of agreement on what faculty mean by "upper-division". I mean this to include texts, level of instruction/guidance and lab activities. Les Wong

Date: Tue, 6 Dec 94 12:58:29 -0800 From: Judy Cushing <judyc@elwha.evergreen.edu> To: alleisen@elwha.evergreen.edu, barlowc@elwha.evergreen.edu, beugm@elwha.evergreen.edu, bopegedd@elwha.evergreen.edu, cushja@elwha.evergreen.edu, dimitrof@elwha.evergreen.edu, guttmanb@elwha.evergreen.edu, imamura@elwha.evergreen.edu, judyc@elwha.evergreen.edu, kahanl@elwha.evergreen.edu, kellyj@elwha.evergreen.edu, knappr@elwha.evergreen.edu, kutterb@elwha.evergreen.edu, margolic@elwha.evergreen.edu, marvinj@elwha.evergreen.edu, marvinj@elwha.evergreen.edu, middendd@elwha.evergreen.edu, motleyf@elwha.evergreen.edu, munevarg@elwha.evergreen.edu, nealn@elwha.evergreen.edu, ottt@elwha.evergreen.edu, parsonwl@elwha.evergreen.edu, paulsend@elwha.evergreen.edu, reedj@elwha.evergreen.edu, rideouts@elwha.evergreen.edu, rscole@elwha.evergreen.edu, sherri@elwha.evergreen.edu, stuporg@elwha.evergreen.edu, sugiyama@elwha.evergreen.edu, tabbuttf@elwha.evergreen.edu, tabbuttk@elwha.evergreen.edu, wongl@elwha.evergreen.edu Subject: Re: BS degree

the students certainly perceive there to be a real difference between a BS and BA.

Date: Tue, 6 Dec 1994 14:20:08 -0800 (PST) From: Clyde Barlow <barlowc@elwha.evergreen.edu> To: "John W. Marvin" <marvinj@elwha.evergreen.edu> Cc: sth@elwha.evergreen.edu Subject: Re: BS degree

John-

I am one of those who favors keeping the BS degree but would not be opposed to seeing revisons in the requirements. Obtaining support for advanced offerings in the sciences, those above the junior college level, is a continuing problem and the BS requirements are a small but useful encouragement. Many transfer and continuing students are here because we offer a BS degree and, rightly or wrongly, they feel that it is more significant then the Evergreen BA degree which has no requirements. The case is presented that several academic institutions with prestigious science departments offer only BA degrees. Their BA is fine when backed by national recognition. The national reputation of Evergreen, on the other hand, does not lend similar credibility to a BA for a science student.

On Tue, 6 Dec 1994, John W. Marvin wrote:

> It has been suggested they we take advantage of the current Curriculum > Planning process to re-think our BS degree. A number of STH faculty are > finding it a bother on the one hand, and more importantly, not a real BS > in many cases: e.g., we are granting BS's to people who have had no > calculus. So perhaps we should either abandon it or revise the > curriculum to strengthen it. The latter implies a lot of changes in the > way we teach, so getting rid of it is attractive. The old argument for > the BS had to do with hiring practices in the Wash. State government. > The BS is still favored, but I don't have any data as to whether our BS > grads are experiencing any real advantage in the job market. > John M

Date: Tue, 6 Dec 1994 14:20:51 -0800 (PST)
From: John Cushing <cushja@elwha.evergreen.edu>
To: Judy Cushing <judyc@elwha.evergreen.edu>
Cc: alleisen@elwha.evergreen.edu, barlowc@elwha.evergreen.edu,
 beugm@elwha.evergreen.edu, bopegedd@elwha.evergreen.edu,
 dimitrof@elwha.evergreen.edu, guttmanb@elwha.evergreen.edu,
 imamura@elwha.evergreen.edu, judyc@elwha.evergreen.edu,
 kahanl@elwha.evergreen.edu, kellyj@elwha.evergreen.edu,

knappr@elwha.evergreen.edu, kutterb@elwha.evergreen.edu, margolic@elwha.evergreen.edu, marvinj@elwha.evergreen.edu, marvinj@elwha.evergreen.edu, middendd@elwha.evergreen.edu, motleyf@elwha.evergreen.edu, munevarg@elwha.evergreen.edu, nealn@elwha.evergreen.edu, ottt@elwha.evergreen.edu, parsonwl@elwha.evergreen.edu, paulsend@elwha.evergreen.edu, reedj@elwha.evergreen.edu, rideouts@elwha.evergreen.edu, rscole@elwha.evergreen.edu, sherri@elwha.evergreen.edu, stuporg@elwha.evergreen.edu, sugiyama@elwha.evergreen.edu, tabbuttf@elwha.evergreen.edu, tabbuttk@elwha.evergreen.edu, wongl@elwha.evergreen.edu

yes they do, don't they? It seems to me that we cannot abandon offering the BS degree at this point without either (a) changing the level of what we teach downward, or (b) implying that the BS degrees we have offered in the past were not warranted by the level of what we taught.

The BS degree has (I think) always been seen as just one more thing we do to make what we do at Evergreen seem more "legit" to a (sometimes) skeptical outside world. If you look around the country, you don't see any general agreement on what the BS degree "means" either; or any standard set of topics, etc. Whether the BS degree is "valid" given what is taught at a particular insitution is ultimately a matter for the accrediting authorities: if they don't think there's a problem with our BS degree (and they don't), then there isn't a problem.

If some faculty feel that they are giving upper division credit for lower division work, then that's a different issue. and those faculty should either (a) stop doing so, or (b) beef the work up so they feel better about it.

So, anyway... I'll be glad to participate in the conversation, but I don't see (yet) any persuasive reason to give up the BS degree.

On Tue, 6 Dec 1994, Judy Cushing wrote:

> the students certainly perceive there to be a real difference between > a BS and BA.

Date: Tue, 6 Dec 1994 15:06:14 -0800 (PST) From: Burton Guttman <guttmanb@elwha.evergreen.edu> To: sth@elwha.evergreen.edu Subject: BS Degree

To add to the current discussion here are is an exchange I had with Judy Huntley back in April, when the question arose at an STH meeting:

Burt Guttmanguttmanb@elwha.evergreen.eduThe Evergreen State CollegeVoice: 206-866-6000, x. 6755Olympia, WA 98505FAX: 206-866-6794

>From guttmanb@elwha.evergreen.edu Tue Dec 6 14:59:32 1994
Date: Thu, 7 Apr 1994 13:33:55 -0700 (PDT)
From: Burton Guttman <guttmanb@elwha.evergreen.edu>
To: Judy Huntley <huntleyj@elwha.evergreen.edu>
Subject: B.S. degree

Hi, Judy. At today's meeting of the STH faculty, the question of the B.S. degree arose again. Rob Cole reported to us that the Environmental Studies faculty, on initiative from Jim Stroh, has gone on record as wanting to either eliminate the degree or to put real teeth into it.

The few STH faculty members who were at the meeting have varied opinions about the B.S. degree, and we found ourselves lacking information about a critical point: the awarding of upper-division natural science credit by members of the faculty who are not mathematicians or scientists. Perhaps you could answer some questions for us:

1. How common is it for members of the faculty who are not mathematicians or scientists to award upper-division natural science credit? You might answer this question in various ways, such as "We get about ten evaluations a year in this category," or "Approximately xx quarter hours per year are awarded in this way."

2. Does your office exert any control over this matter? Do you ever, for instance, return an evaluation to a person in humanities and question his/her awarding of science credit?

3. What kinds of work is such credit awarded for? For instance, is it done primarily for internships? for individual contracts? as an equivalency in some coordinated studies or group contract?

4. This is a bit touchy, and you might not want to answer it: Are there any members of the faculty whom you are concerned about because they are not mathematicians or scientists and yet award upper-division credit rather egregiously?

5. Have you ever had discussions with the Deans and/or Provost about this issue?

We would appreciate any additional information you can give us that will help us discuss this issue. Thanks very much, Judy.

Burt Guttman guttmanb@elwha.evergreen.edu

Date: Mon, 11 Apr 1994 15:30:24 -0700 (PDT) From: Judy Huntley <huntleyj@elwha.evergreen.edu> To: guttmanb@elwha.evergreen.edu Subject: Memo of April 7th

Hi Burt! I will try to answer your questions in the same order as asked.1) The only time we have received science credits from a non-science faculty has been when the student is working with someelse who has a

science/math background (subcontractor, course faculty, etc).
2) We have not had a time when anything was turned back to a
non-science faculty. Were such a case to happen I would check with the
Academic Deans first to see of the credit was allowable.
3) We find that credits are seen in the Internship/Contract learning
where there may be a sub-contractor. Occasionaly we have seen it through
the Native American Program, there againg it is usually with a science
faculty - not necessarily in the program - who works with the student and
then determines the equivalencies.

4) My concern has been within the science/math area where the faculty are not always supportive of the B.S. degree and will just give the credit because the student needs it to graduate with a B.S. I'm also concerned about the lack of consistency in awarding upper-division credit; students aren't always told the breakout early enough to make an educated decision on the programs they need to get this particular degree; programs change from year to year making it difficult for students to plan for the degree (i.e. M to O is a program that we have seen change the amount of upper-division over the year and when students talk with each other they find it is not the same)

5) I have talked with the Deans, in the past, about my concerns and the questions that we get when students are going through advising and registration. I've spoken about the lack of genuine support for the degree.

I was looking over the graduation statistics and would be glad to share them with you...let me know if you would like a copy of my stats... the applications for B.S. and B.A.S. are up. This year we are reviewing 139 applications. We get questions from students before they enter Evergreen about pathways for earning the B.S. degree.

Please let me know if there is more that I can share or if there are statistics I can pull together. I hope this has helped!

Judy

Date: Wed, 7 Dec 1994 11:25:53 -0800 (PST) From: Masao Sugiyama <sugiyama@elwha.evergreen.edu> To: sth@elwha.evergreen.edu Subject: the BS degree

I would like the BS degree to mean something more than it does. A calculus requirement is essential. It seems to me that we would need some way to regulate what is the requirements were in general.

Since we do not, as a school, believe in requirements, the only other alternative would be to eliminate it.

Masao

Date: Thu, 8 Dec 1994 12:05:45 -0800 (PST) From: Dharshi Bopegedera <bopegedd@elwha.evergreen.edu> To: "John W. Marvin" <marvinj@elwha.evergreen.edu> Cc: sth@elwha.evergreen.edu

Subject: Re: BS degree I do not want to do away with the BS degree. When students apply to graduate schools, having a BS degree becomes important to them. This is specially so because we do not have grades, GPA etc. Also it encourages our best students to take upper division science programs. There are some jobs that require a BS degree (a BA will not do for some reason). So I vote for keeping the BS degree. Dharshi Bopegedera On Tue, 6 Dec 1994, John W. Marvin wrote: > It has been suggested they we take advantage of the current Curriculum > Planning process to re-think our BS degree. A number of STH faculty are > finding it a bother on the one hand, and more importantly, not a real ΒS > in many cases: e.g., we are granting BS's to people who have had no > calculus. So perhaps we should either abandon it or revise the > curriculum to strengthen it. The latter implies a lot of changes in the > way we teach, so getting rid of it is attractive. The old argument for > the BS had to do with hiring practices in the Wash. State government. > The BS is still favored, but I don't have any data as to whether our BS > grads are experiencing any real advantage in the job market. > > John M _____

Date: Thu, 8 Dec 94 20:58:05 -0800
From: Betty Kutter <kutterb@elwha.evergreen.edu>
To: marvinj@elwha.evergreen.edu, wongl@elwha.evergreen.edu
Cc: sth@elwha.evergreen.edu
Subject: Re: BS degree

I think the BS degree is still appropriate here. To me, the most important aspect of "upper division" is relatively independent, critical analysis of the actual journals/literature of a field -- showing understanding of the fundamentals, the ability to clearly distinguish what one understands from what one doesn't, the ability to formulate fairly sophisticated, research-related questions. It is more a matter of how the student relates to the material than only of what the professor tries to present. When I was in college, there were courses where some students got grad, some undergrad credit, or some upper,

some lower division -- there, they registered for one or the other in advance, but I see the principle as the same as giving some students upper, some lower in the same program -- where those getting upper have demonstrated a depth of understanding of at least that particular topic through independent work in the literature and/or a project, in addition to doing appropriately well on the basic "text" work. It is good to discuss whether there is any one particular piece of knowledge that should be common to everyone with a BS, whatever their specialty. Tho having my BS in math, I would say that an understanding of the fundamentals of chemistry, atomic structure, etc. is at least as important as any math course to most of the sciences... Thanks, Burt, for the data you solicited for us -- seeming to dispel a few widespread myths...

Betty Kutter

Date: Fri, 9 Dec 1994 09:18:37 -0800 (PST)
From: Burton Guttman <guttmanb@elwha.evergreen.edu>
To: Betty Kutter <kutterb@elwha.evergreen.edu>
Cc: marvinj@elwha.evergreen.edu, wongl@elwha.evergreen.edu,
 sth@elwha.evergreen.edu
Subject: Re: BS degree

On Thu, 8 Dec 1994, Betty Kutter wrote:

> I think the BS degree is still appropriate here. To me, the most > important aspect of "upper division" is relatively independent, critical > analysis of the actual journals/literature of a field -- showing > understanding of the fundamentals, the ability to clearly distinguish > what one understands from what one doesn't, the ability to formulate > fairly sophisticated, research-related questions. It is more a matter > of how the student relates to the material than only of what the > professor tries to present.

While I agree with Betty that we should retain the B.S. degree (but make it a meaningful degree, with some standards), I think her standards for upper-division work are too ambitious and restrictive. When I teach things like genetics and cell biology in M2O, I'm sure it's at a level at least equal to what juniors and seniors at other good colleges would be doing, with lots of emphasis on demonstrating real understanding and solving problems. But the students are certainly not analyzing the actual literature in the field and most of them are nowhere near formulating sophisticated, research-oriented questions. (Very few of them are likely to get into any research in these subjects, but all of them need to understand the subjects for their other work in biology, medicine, etc.)

> It is good to discuss whether there is any one particular piece of > knowledge that should be common to everyone with a BS, whatever their > specialty. Tho having my BS in math, I would say that an understanding > of the fundamentals of chemistry, atomic structure, etc. is at least as > important as any math course to most of the sciences.

I would support some kind of math standard, something beyond college algebra, but not necessarily calculus. Statistics at a rather sophisticated level might be best for many students. Someone who claims a B.S. degree ought to have his/her thinking informed by a certain mathematical sophistication; for instance, something important happens to your ability to see the world and think about it when you see it through the eyes of the major ideas of calculus, and I think we want our graduates to have that kind of world-view. I'd like our mathematics (and Philosophy, David!) colleagues to suggest some math "packages" that might provide that sophistication.

Burt Gu	ıttman		guttmanb@elwha.evergreen.edu				
The Eve	ergreer	n State	College	Voice:	206-866-6000,	х.	6755
Olympia	a, WA	98505		FAX: 206	-866-6794		

Date: Fri, 9 Dec 1994 11:27:54 -0800 (PST) From: Rob Knapp <knappr@elwha.evergreen.edu> To: "John W. Marvin" <marvinj@elwha.evergreen.edu> Cc: sth@elwha.evergreen.edu Subject: Re: BS degree

Well, it's certainly time to update our images and assumptions about what the world out there requires/desires re BS, and just as much re subject content of what we offer that is supposed to prepare people. Research! (At least a little.)

Rob

On Tue, 6 Dec 1994, John W. Marvin wrote:

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> Planning process to re-think our BS degree. A number of STH faculty
are
> finding it a bother on the one hand, and more importantly, not a real
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> calculus. So perhaps we should either abandon it or revise the
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> way we teach, so getting rid of it is attractive. The old argument for > the BS had to do with hiring practices in the Wash. State government. > The BS is still favored, but I don't have any data as to whether our BS > grads are experiencing any real advantage in the job market. > > John M

Date: Wed, 7 Dec 1994 14:32:25 -0800 (PST)
From: Burton Guttman <guttmanb@elwha.evergreen.edu>
To: STH Faculty <sth@elwha.evergreen.edu>
Subject: Re: BS degree (fwd)

The following message from David Paulsen doesn't have any smilles in it, but I'm imagining him writing it with a smile on his face. I want to forward it to STH people, with a reply, just in case anyone who read my message to Judy Huntley might be seriously offended by my question about "non-scientists."

The teaching of science is pretty darn serious stuff, of course, and those of us who have _real science_ degrees have all taken sacred oaths to guard the portals with our lives. But if people like David and Gonzalo behave themselves and are properly humble before the Gods of Science, I think we could all agree that logic, analytic philosophy, philosophy of science, and all of cognitive science count as _real_ science when it comes to handing out B. S. degrees. ;-) Just don't try to pass of none of that wishy-washy philosophy stuff! Remember, we're all gonna be watching you pretty closely.

Burt

----- Forwarded message -----Date: Wed, 7 Dec 1994 14:02:52 -0800 (PST) From: David Paulsen <paulsend@elwha.evergreen.edu> To: Burton Guttman <guttmanb@elwha.evergreen.edu> Subject: Re: BS degree

Burt, I don't know how you count me or Gonzalo in your question. I typically give some upper division computer science credit for portions of Computability and Cognition I teach (albeit with Al the mathematician) and portions of Science of Mind (albeit with Linda Kahan the biologist). Do we count as the "moral equivalent" of scientists in this context?

Date: Thu, 15 Dec 1994 14:40:44 -0800 (PST) From: Burton Guttman <guttmanb@elwha.evergreen.edu> To: STH Faculty <sth@elwha.evergreen.edu> Subject: BS Degree

My apologies to John Cushing and others for omitting computer science and

cognitive science in general from my comments. Yes, computer science is really science! Let me remove chemistry from my list of suggest topics, but let me hold onto physics for a while. Don't you (you-all, "youse") feel that there is something fundamental about physics that should make it a part of every student's preparation and outlook on the world? So I'm going to suggest, in addition to the math, at least 10 credits of physics plus 10 credits of a second science (chem, computer science, biology, ???) as lower-division preparation, plus some number to be determined of upper-division science.

Burt Guttmanguttmanb@elwha.evergreen.eduThe Evergreen State CollegeVoice: 206-866-6000, x. 6755Olympia, WA 98505FAX: 206-866-6794

Date: Fri, 16 Dec 1994 08:28:44 -0800 (PST)
From: Michael Beug <beugm@elwha.evergreen.edu>
To: Burton Guttman <guttmanb@elwha.evergreen.edu>
Cc: wongl@elwha.evergreen.edu, sth@elwha.evergreen.edu
Subject: Re: BS degree

Burt, I would modify your list to say 8 credits of chemistry and 8 credits of either physics or biology (with a strong recommendation that all students do at least 8 credits of physics even if they also take biology). I would also wish to be clear that what is generally called precalculus math does not fill part of the expectation that all students do one year of math.

Date: Fri, 16 Dec 1994 08:34:36 -0800 (PST)
From: Michael Beug <beugm@elwha.evergreen.edu>
To: John Cushing <cushja@elwha.evergreen.edu>
Cc: Burton Guttman <guttmanb@elwha.evergreen.edu>,
wongl@elwha.evergreen.edu,
 sth@elwha.evergreen.edu
Subject: Re: BS degree

John, if you reread my list, I had included computer science of one year of either physics, chemistry, biology or (some appropriate computer science course). I simply was not certain what to make the computer requirement.

Date: Fri, 16 Dec 1994 10:25:29 -0800 (PST) From: Michael Beug <beugm@elwha.evergreen.edu> To: Burton Guttman <guttmanb@elwha.evergreen.edu> Cc: STH Faculty <sth@elwha.evergreen.edu> Subject: Re: BS Degree

Sorry Burt, you cannot drop chemistry and not drop physics. Why would chemistry be called the central science? Students need both

chemistry and physics and that is what we should encourage. As to what we require, that is a different matter. I believe it should be one of several science choices totaling one year (or better yet 4 quarters), but not necessarily one full year of any one science subject.

Date: Fri, 16 Dec 94 11:48:43 -0800 From: Judy Cushing <judyc@elwha.evergreen.edu> To: alleisen@elwha.evergreen.edu, barlowc@elwha.evergreen.edu, beugm@elwha.evergreen.edu, bopegedd@elwha.evergreen.edu, cushja@elwha.evergreen.edu, dimitrof@elwha.evergreen.edu, guttmanb@elwha.evergreen.edu, guttmanb@elwha.evergreen.edu, imamura@elwha.evergreen.edu, judyc@elwha.evergreen.edu, kahanl@elwha.evergreen.edu, kellyj@elwha.evergreen.edu, knappr@elwha.evergreen.edu, kutterb@elwha.evergreen.edu, margolic@elwha.evergreen.edu, marvinj@elwha.evergreen.edu, middendd@elwha.evergreen.edu, motleyf@elwha.evergreen.edu, munevarg@elwha.evergreen.edu, nealn@elwha.evergreen.edu, ottt@elwha.evergreen.edu, parsonwl@elwha.evergreen.edu, paulsend@elwha.evergreen.edu, reedj@elwha.evergreen.edu, rideouts@elwha.evergreen.edu, rscole@elwha.evergreen.edu, sherri@elwha.evergreen.edu, stuporg@elwha.evergreen.edu, sugiyama@elwha.evergreen.edu, tabbuttf@elwha.evergreen.edu, tabbuttk@elwha.evergreen.edu, wongl@elwha.evergreen.edu Subject: Re: BS Degree hm.... is there something special about physics that makes it "fundamental i don't think so, not necessarily. IF there were going to be a "natural sciene" requirement for the BS, why couldn't it be simply to take some natural science? it could be physics, or chemistry, or biology, or environmental science, or (psychology???).... seems like it should be that physics students might need to take some science or math other thanphysics.... what i think i'd care about would be the student having some idea of what experimental (physical/natural) science is about....

if we were to require 10 credits of physics, then we'd have to provide a way for students to get that....

-judy

Date: Fri, 16 Dec 1994 12:13:51 -0800 (PST)
From: Les Wong <wongl@elwha.evergreen.edu>
To: Burton Guttman <guttmanb@elwha.evergreen.edu>
Cc: Michael Beug <beugm@elwha.evergreen.edu>, sth@elwha.evergreen.edu

Subject: Re: BS degree

note: I am on the sth list.

I am struck by the incredibly traditional tone this discussion is having. Much of the dialogue appears to be a "content" driven discussion of what comprises sufficient grist for a b.s. And unfortunately, we use traditional discipline names. Lest I assume otherwise, I am assuming that these content areas will be within current programs.

The questions for me remain: 1) Does the B.S. degree have utility above and beyond a B.A. which would deliver the same content area? I think the answer is no.

2) Are there scientific experiences (coursework + lab+ field exp) which would clearly communicate the scientific achievements of those students? I think the question of scientific experiences compels me to think of whether the current path through STH needs some review and thinking. Particularly in light of computer technologies, and especially since technologies still demand higher level reading and writing.

I hope someone is keeping all these postings. I am reminded of my own technical training which I found scienterrific (even in psychology).

Les Wong

Date: Fri, 16 Dec 1994 14:06:34 -0800 (PST) From: George Dimitroff <dimitrof@elwha.evergreen.edu> To: Burton Guttman <guttmanb@elwha.evergreen.edu> Cc: STH Faculty <sth@elwha.evergreen.edu> Subject: Re: BS Degree

There is no ideal curriculum that is suitable for all. The idea that calculus or discrete mathematics is essential for a BS degree is ludicrous. Burt suggests mathematics and physics because he won't have to teach the dunderheads who think they need a BS degree to get a job, and who clammer for courses they really have no interest in. I think our present system of letting students plan their own curriculums is best. We minimize the numbers of students with little interest in what we are teaching, and I believe that in the long run, the students get a better education.

Adding all these menus of courses from which the students should choose makes us look more and more like Podunk College, and I do not think that it adds to the education of our students. We should substitute sound and strong advice for required courses.

I think our BS degree is as meaningful as anybody else's. At the University of Oregon several years ago, the difference between a BA and a BS was that students had to take at least one year of a foreign language for a BA degree.

I do not think that all these lists of required courses will improve anything. On Thu, 15 Dec 1994, Burton Guttman wrote: > My apologies to John Cushing and others for omitting computer science and > cognitive science in general from my comments. Yes, computer science is > really science! Let me remove chemistry from my list of suggest topics, > but let me hold onto physics for a while. Don't you (you-all, "youse") > feel that there is something fundamental about physics that should make > it a part of every student's preparation and outlook on the world? So > I'm going to suggest, in addition to the math, at least 10 credits of > physics plus 10 credits of a second science (chem, computer science, > biology, ???) as lower-division preparation, plus some number to be > determined of upper-division science. >> Burt Guttman guttmanb@elwha.evergreen.edu > The Evergreen State College Voice: 206-866-6000, x. 6755 > Olympia, WA 98505 FAX: 206-866-6794 _____ Date: Fri, 16 Dec 94 15:04:48 -0800 From: David Paulsen <paulsend@elwha.evergreen.edu> To: dimitrof@elwha.evergreen.edu, guttmanb@elwha.evergreen.edu Subject: Re: BS Degree The foreign language for the BA (statistics or some computer language for the BS) was true at Nebraska as well. _____ Date: Sat, 17 Dec 1994 09:36:56 -0800 (PST) From: Rob Knapp <knappr@elwha.evergreen.edu> To: Michael Beug <beugm@elwha.evergreen.edu> Cc: John Cushing <cushja@elwha.evergreen.edu>, Burton Guttman <quttmanb@elwha.evergreen.edu>, Betty Kutter <kutterb@elwha.evergreen.edu>,

marvinj@elwha.evergreen.edu,

wongl@elwha.evergreen.edu, sth@elwha.evergreen.edu
Subject: Re: BS degree

Folks -- I have just finished a round of evaluations with FONS students where it was apparent that for quite a number, especially the less thoughtful, completing a BS was a way of structuring their education here that was substituting for thinking hard about what they wanted and what it takes to get it. I'm scared that making more detailed requirements for the degree will reinforce that substitution -- I don't have to figure out what I need, the college has already figured it out for me. I would rather we used our wisdom about what students do need to structure our offerings so that they get what they need when they sign up for what they want. Rob Knapp

On Tue, 13 Dec 1994, Michael Beug wrote: > I am reluctantly coming around to agreeing with the need to keep the B.S. > degree. It makes students think more about their science education and > results in them taking some important courses they would otherwise > avoid. I do favor strengthening the requirements for the B.S. through some > broad area prerequisites (or corequisites) of lower division material. > > In thinking about the diverse needs of computer, math, physical science, > biological science and environmental studies students, it is very hard ± 0 > come up with any specific requirements. However, could we have some > broad classes of requirements coupled with some strong recommendations? > To make certain that all students have competency in mathematics, how > about a requirement that all students must complete one year in any > combination of the following: discrete math, calculus, statistics and > university physics. >> To assure general science competency all students should have one year in > any combination of the following: general biology, general chemistry, > organic chemistry, general physics, (some parallel in computer science?). > The recommendation for all students should be one year of calculus or > discrete mathematics; a course in statistics; one year of general > chemistry; one year of physics. For biology and environmental studies > science majors, include one year of general biology and one term of organic > chemistry. _____

Date: Sat, 17 Dec 1994 09:44:55 -0800 (PST) From: Rob Knapp <knappr@elwha.evergreen.edu> To: Dharshi Bopegedera <bopegedd@elwha.evergreen.edu> Cc: sth@elwha.evergreen.edu Subject: Re: BS degree

Dharshi -- Well, yes and no. I don't think students are mainly taking AMR because they are forced to. I think they sign up because they heard it was a good program -- full of substance, taught in a lively, authoritative, supportive way.

I think our responsibility is to get students to understand what they should have as part of a good undergraduate training, and to make it available, but I don't think it should be our responsibility to ensure

that they have it. I think they will learn better and make better future use of what they learn if they have needed (and been able) to decide what main pieces to assemble into their degree. Rob _____ Date: Mon, 19 Dec 94 07:10:09 -0800 From: Betty Kutter <kutterb@elwha.evergreen.edu> To: guttmanb@elwha.evergreen.edu Cc: STH@elwha.evergreen.edu Subject: Re: BS Degree I share the concerns about getting ourselves into inappropriate places too much like "brand X" by trying to put in a specific set of requirements that all students have to meet -- and worse yet, having our curriculum too much driven by our having to help them meet them! I'd rather have, I think, lists of strong recommendations for people with various kinds of future goals and a requirement for some sort of "senior thesis" -- with in effect whichever science faculty signs off on that saying that this person has the requisite intellectual tools to not inappropriately be awarded a "BS" degree -however they have managed to get them! (We then need to have some trust in our science faculty colleagues' judgement.) This should, by the way, give all of us both the excuse and the mandate to be involved with a few students doing truly advanced work for their theses, which can be quite exciting! By the way, how real/extensive a problem are we talking about? Are many students getting BSs without basic math skills, or at least one strong course in basic science concepts? Didn't sound like that was too likely, from the registrar data you were citing on who was giving the upper-division science credit... Best wishes, Betty