Nomination Portfolio

FY 2002 Regents' Teaching Excellence Awards for Faculty/Staff

Submitted by Dr. Timothy Rhoads

South Georgia College

Department of Natural Science and Mathematics

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January 11, 2002

Dr. Dorothy Zinsmeister Senior Associate for Academic Affairs Board of Regents 270 Washington Street S.W. Atlanta, GA 30334-1450

Dear Dr. Zinsmeister:

It is my pleasure to recommend Dr. Timothy Lynn Rhoads for the Regents' Teaching Excellence Award for the two-year sector for 2002. As evidenced by his thorough portfolio, he is eminently qualified for this award. He always receives excellent student evaluations, and we often get letters from former students when they transfer that attest to his proficiency as a teacher and his positive influence through interaction with students outside the classroom.

Dr. Rhoads uses a variety of teaching methods in order to reach the myriad learning styles of our students. He has documented in this report an array of distinctive efforts he has made to foster student learning. He is on the cutting edge of the use of technology in his classroom but never lets this expertise overshadow the traditional teaching methods he employs.

Besides his stellar efforts in the classroom, Dr. Rhoads finds time to share his enthusiasm and interest in science by advising the Environmental Awareness Club and co-chairing the district Science Olympiad for Middle School Students each year. He represents the Math/Science Division on College committees and has successfully written several grants that have provided much needed equipment for the science division.

While South Georgia College prides itself in employing excellent teachers in all divisions, Dr. Rhoads is a superlative teacher and is committed to his role as a teacher and mentor. He is extremely deserving of the Regents' Teaching Excellence Award.

Sincerely,

Grace M. James Vice President for Academic Affairs

condensed CURRICULUM VITAE

NAME: Timothy Lynn Rhoads

BIRTH DATE: 1/17/63

FAMILY: married, one child

ADDRESS: 109 Rebecca Waldron rd. Douglas, GA 31535 (912) 383-9086

CYBER INFO:

e-mail: trhoads@mail.sgc.peachnet.edu webpage:sgc.peachnet.edu/users/trhoads/WWW/index.html

EDUCATION

Ph. D. Biology 8/97, University of Mississippi

Dissertation subject: Bacterial membrane potential and Mn⁺² lithotrophy

M.S. Biology 10/91, University of Alabama in Huntsville

Thesis subject: Screening for bacterial ligninases

B.S. Microbiology 12/86, Auburn University

PROFESSIONAL AFFILIATIONS

Sigma Xi Scientific Research Society American Society for Microbiology (ASM) Georgia Academy of Science Phi Theta Kappa Honor Society Gamma Sigma Delta Honor Society Institute for the Advancement of Space Life Support

PROFESSIONAL EMPLOYMENT summary - complete description available upon request 8/97 - present. Science and Mathematics Division, South Georgia College. Assistant Professor of Biology.

8/93 - 8/97. Department of Biology, University of Mississippi. Graduate student, GTA/RA, instructor.

11/91 - 8/93. Baxter Health Care Corp., IV Division, Cleveland, MS. Q.A / Q.C. Microbiologist

10/89 - 11/91. University of Alabama in Huntsville. Lead Microbiologist - Space Life Sciences/ JRC

2/88 - 10/89. Department of Botany/Microbiology, Auburn University, Auburn, AL. Research technician

4/87 - 2/88. Tyson foods, Greenville, AR. Quality control supervisor.

TEACHING EXPERIENCE

*South Georgia College (SGC)

Courses/labs: Principles of Biology (both semesters) Microbiology Human Anatomy and Physiology Environmental Science (I developed this course)

*University of Mississippi

Courses/labs: General Microbiology Guest lecturer: General Microbiology Microbial Physiology Microbial Energetics General Microbiology lab director Lab instructor and culture curator: Microbial Physiology, Aquatic Microbiology, Bacterial Genetics

TEACHING HONORS

Twice nominated for Who's Who Among America's College Teachers 2001 Georgia Governor's Teaching Fellow

SERVICE ACTIVITIES

University System of Georgia-Biology Academic Advisory Council member Chairman, SGC Student Retention Taskforce Director, SGC Science Olympiad, 1998-present Faculty Advisor, SGC Environmental Awareness club Secretary, SGC Student Affairs committee Secretary, SGC Discipline committee Member, SGC Academic Council Member, SGC Student Activity Budget Committee Science/Biology "teacher" in GA PREP (post-secondary readiness enrichment program) Sigma Xi Young Scientist Mentoring program Chairperson and judge, Junior Life Sciences division, regional science fair, 1998-present Ad hoc reviewer, Canadian Journal of Microbiology, 1995 to present

RESEARCH, GRANT and CONTRACT SUPPORT since 1995 (chronological)

Army Corps of Engineers: use of physical/chemical and microbial parameters to determine extent of hydrostatic relief well biofouling prior to and following well reclamation efforts.

Alford, Rogers, Cullimore Concepts: evaluation of experimental techniques/equipment for use in abatement and prevention of hydrostatic relief well biofouling.

Mississippi Mineral Resources Institute: recover and characterize bacterial residents of deep sea FeMn nodules from the Blake plateau and consider possible role of bacteria in their generation.

NASA Space Grant program: efficacy and microbial characterization of an experimental plant/microbial wastewater treatment system 1995, 1997.

Sigma Xi Grants-in-Aid of Research Program, 1996-1997: bacterial electron transport components potentially involved in energy-linked manganese oxidation.

University system of Georgia (USG), Teaching and learning grant, 1997: Acquire equipment and supplies, and organize Microbiology advisory board for the purpose of improving the Microbiology course/lab.

USG Teaching and learning grant, 1998: Microbiology course/lab improvement effort - phase II.

USG Teaching and learning grant, 1999: System consisting of integrated computer/scientific equipment to demonstrate and/or perform experiments (oxidant pulse) on cellular respiration.

USG Faculty Development/Technology in Instruction grants, 2000: for the purchase of supplies and equipment used to infuse technology into course and laboratory teaching.

PUBLICATIONS and MANUSCRIPTS - available upon request

PROFESSIONAL REFERENCES - available upon request

Reflective statement about teaching and learning:

For each of the links referred to below please see the "Regents Teaching Excellence Awards" link on my homepage at <u>http://www.sgc.peachnet.edu/users/trhoads/WWW/index.html</u>. The order of the links on the webpage agrees with the order in which they are referenced in this document.

Since taking my first college Biology course in 1981 I have wanted to be a college Biology instructor. The instructor of this course inspired my interest in learning and, in doing so, shaped my future in a profound way. My general teaching goal is to inspire this same interest in students and help to prepare them for the future and the work place. I believe that my love of teaching, my desire to see students succeed, and my high level of motivation are paramount in achieving this goal.

I would liken my experiences as an 11 year college student to that of a baseball catcher with the instructor as the pitcher. I came to believe that it was the instructors job to deliver the material clearly and completely, then to evaluate the students objectively. There was one way to pitch and the students would catch it or not. The willingness and ability to "catch it" was what separated the winners from the losers. When I first began teaching as a graduate teaching assistant and part-time instructor of Microbiology at the University of Mississippi I emulated this misconception of what an instructor should be. My superiors were pleased because they shared in the standard misconception.

Over the years I have watched otherwise intelligent people do foolish things. As a result I coined the phrase, "there are all kinds of smarts." Why I didn't equate this idea with the obvious error in my immature teaching philosophy I do not know. Now it seems so obvious. The pitch-catch scenario doesn't work. Just as "there are all kinds of smarts" there are multiple types of learners. One is no better than the other, only different. One is no more deserving of attention. Teachers must do away with their archaic notions of instruction and strive to accommodate the students' various learning styles.

More and more I come to realize that everyone is not like me. Everyone doesn't learn as I do, so why should my teaching method reflect only the way I learn? I have read about the various "learning styles" for the last 10 years but only in the last 5 have I begun to embrace the fact that students learn in different ways. Multiple learning styles demand multiple learning tools. Not only does utilization of multiple learning tools allow some students to connect who were previously lost (as if I had been speaking a foreign language), but all students benefit from considering and processing concepts from multiple perspectives. This is critical to true learning. I tell my students repeatedly that memorizing the definition of a concept is worse than worthless because it limits understanding. They can only see the concept from one perspective. As I explain the concept in several ways, using various visual aids and various analogies (which I believe are the best visual aids for the "minds eye"), I tell the students, "don't write anything in your notes until you see it." I try to create an image of the concept in their mind that they can see as they would see a 3 dimensional picture. Just as you can see a picture from any angle and it looks different yet the same, students using multiple learning tools can see the concept from multiple perspectives allowing them to apply their understanding of the concept to various problems. This, I believe, is approaching the ultimate goal of teaching: to teach students to learn, to understand, and to think. My job is, as Dr. Ron Simpson once said, "to design and facilitate an environment conducive to deeper learning" and "to create circumstance in which learning occurs." Rather than trying to teach the students the material, I have truly accomplished something if I have taught the students how to think about the material in a way that they learn it.

I ensure that students are exposed to a broad range of learning tools. I use traditional methods such as lecture, chalkboard, and visual aids such as handouts and 3 dimensional models. I utilize analogies which allow students to relate scientific concepts to simple everyday ideas. Such analogies help students comprehend the mechanics of a concept, and relating concepts to things they already understand prevents intimidation, which is a problem for some students in science classes. Writing assignments include periodic summaries of concepts written in-class to determine each students level of understanding, synopses of laboratory exercises, and formal laboratory reports written as groups. These and other written assignments are combined in student portfolios which are submitted at midterm and end-of-term (please refer to "rules for lab synopses" and "portfolios" on pages 3 and 4 of the "BIOL 1107 syllabus" link). Library reading assignments involve classic articles or subject assignments in which particular references are not suggested. In either case, students may be asked to prepare written summaries, to prepare oral presentations in groups, or simply be informed that related questions will be included on examinations.

I have integrated a variety of technology learning tools into the classroom setting, not to replace existing learning tools, but rather to accommodate additional learning styles (as discussed above) and to increase opportunities for exposure to the concepts both in and out of class. I developed a second Environmental Science course (SCIE 1121) 2 years ago. The concepts covered in this course are not all included in a single textbook. Consequently, I compiled a series of websites that address each concept covered in class into the SCIE 1121 Virtual textbook (refer to the "SCIE 1121 Virtual Textbook" link). I use on-line weather programs in class as an aid to help students learn about the interaction of factors affecting weather patterns. I pose questions relating to selected concepts from class, divide students into groups, and task these groups with preparing a written summary from current relevant information found on the internet. Students must include internet references in their summaries (refer to "computer projects" on page 3 of the "SCIE 1121 syllabus" link). I assign a second type of current contents internet project which is due at midterm each semester. In this project, Biology students are instructed to find information and write summaries of current information on 5 molecular Biology topics of their choosing (refer to assignment #1 in the "BIOL 1107 SLRC project" link). Similarly, Microbiology students are instructed to use the Centers for Disease Control website and summarize current information on 5 emerging infectious diseases (refer to the "BIOL 2215 SLRC project" link). I require students to generate data tables and graphs using spreadsheet programs such as Excel, Quatro Pro, Lotus or Harvard Graphics. I use Powerpoint presentations which include notes outlines, static images, video clips, and sample problems for class discussion. I use the RASMOL computer imaging program to present 3 dimensional models of biomolecules such as proteins.

I submitted 4 Teaching and Learning grant proposals in academic years 97'- 99' which were funded for approximately \$28,000. The first 3 proposals addressed deficiencies in the Microbiology laboratory course (BIOL 2215) which services nursing students and other pre-allied health students. The course was updated to reflect current methods and technology encountered in the medical field. Funds from the fourth T&L grant proposal were used to assemble a system composed of integrated computer and scientific equipment to demonstrate cellular processes in the class or lab that have been historically difficult for students to master. The system gives students a unique opportunity to relate cellular process theory to "real time" experimental data, which they can manipulate and analyze in class or lab. The system will also be used for undergraduate research. I submitted 3 Campus Faculty Development Initiative proposals in academic year 2000 which were funded for approximately \$3600.00. A multimedia projector and student flex camera for projecting microscope images were purchased with these funds, making it much easier for students to observe cellular characteristics in Microbiology class or lab.

Please refer to the following links for additional student learning tools:

- * Studying/learning/testing tips
- * First day of class
- * How to do well in this class

* Test format

* On-line laboratory exercises for BIOL 1107 and SCIE 1121

A learning environment should be disciplined yet informal. My students know from day 1 that they can ask questions or talk to me anytime. This includes before, during and after class, and even during tests. My students know that anyone is free to respond when questions are asked. Questions are not necessarily directed to me. Students can learn from students if we will only let them, creating a "classroom learning community" environment. A teacher should never assume that there is not a student in the room who has a perspective on a concept that the teacher has not considered. Very often I learn new ways to present ideas from students in my class. **Classroom discipline should not squelch interaction but should foster an environment conducive to effective interaction.**

I promote student interaction in several ways. I strike up conversations with students from day 1 so they will relax. I ask students to come by my office for 5 minutes during the first 2 weeks of class. While there I ask them where they attended high school, what is their major field of study, and other questions for the purpose of breaking the tension between the student and myself. I ask students to turn in "muddy issues notes" at the end of class (see the "first day" link indicated above). As I mentioned above, I will often wait for a student to answer a question posed in class by another student. After a few times the apprehension fades and the students relax and speak out. I assign group projects that students work on during class and lab, as well as outside of class. Sometimes I require the groups to present their findings orally to the class. For all group work, each student is required to evaluate all members of their group using a "peer evaluation form" (refer to "Peer evaluation form" link). I schedule pre-test review sessions

outside of class. The price of admission to these sessions is that a student must present a question at the door, ask the question during the session, and attempt to answer at least one question asked by another student.

Educators must demand a high level of performance from their students. Any marksman knows that smaller targets yield more accurate shots. Similarly, higher expectations yield greater performance. I have a reputation among the students at this institution for being very demanding and holding a high standard. Students know before they register for my classes that a lot of hard work awaits them, yet, my classes fill up fast (if not first). If you are in doubt please confirm this with our registrar. You see the many complimentary comments listed in the student evaluations portion of this portfolio. As you know, it is no simple thing to simultaneously be highly demanding yet highly favored and respected.

One recurring question in teaching involves depth vs breadth of material presented. The optimum mixture, of course, depends upon the students major field of study, among other factors. Obviously a Biology major (lets use Biology as an example) has more need for exposure to specific biological information than does a non-major taking the course for science elective credits. This problem is exacerbated at a small school like South Georgia College (SGC) where Biology majors and non-majors are combined in a single class. How do I handle this? For the non-majors, I must realize that the average student will not remember in 6 months that the Hill reaction occurs in photosystem II during the light reactions of non-cyclic photosynthesis. This student, and perhaps every student, would be better served to have a greater appreciation of the value of plants in the ecosystem. For the Biology major, I must expect the command of those specifics necessary for the students success at the next level. I cannot describe exactly how I do this in a few paragraphs, but in general, it requires that I be familiar with the demands of the next course in the Biology sequence, the courses in the Biology programs where students will transfer, and professional schools to which the Biology majors apply.

After utilizing every hour of scheduled classroom/laboratory time I invariably feel that the majors have not been exposed to some potentially critical concepts. Michaelis Menton enzyme kinetics and enzyme regulation are 2 such concepts. This is just one scenario where multiple learning tools are so important. I make various learning tools relating to these "extra concepts" available to the students outside of class. Such tools include classical articles and other suggested readings, websites of researchers working in these area of science, related information posted on my own website, e-mail discussion groups, and I schedule optional informal class meetings at the students convenience to discuss these topics.

I believe that higher education is not an island, and that educational "gaps" must not exist to serve as obstacles between educational levels, such as between high school and college. For this reason, I believe that my responsibility as an educator extends beyond SGC, or college in general. If I sit comfortably within my boundaries then I have no right to complain about the preparedness of students entering my courses. It is my responsibility to involve myself in the preparedness of pre-college students thus increase their chances of collegiate success. I do this in several ways.

I serve in the Post-secondary Readiness Enrichment (PREP) program. The subjects of my PREP sessions with high school freshman and sophomores thus far have been; 1) science is fun, 2) making the transition to college science, and 3) environmental awareness. As a member of Sigma Xi Scientific Research Society I have participated the last 2 years in the Sigma Xi Young Scientist Mentoring program. I serve in this capacity as a source of information and encouragement for high school and college students involved in research. I serve as the director of the SGC Science Olympiad (S.O.). We host ~20 middle school teams annually. Each year I witness the growth of scientific interest and confidence as the kids participate in the S.O. Please refer to the "Science Olympiad" link for SGC S.O. information. For the last 3 years I have served on the Science Fair, Scientific Review Board for a local elementary school. I have also served as the Supervising Scientist for a particular middle school Science Fair project each of these 3 years. I serve as faculty advisor for the SGC Environmental Awareness Club. Our club membership and scope of participation includes not only SGC students and faculty, but local high school and middle school students.

I believe that my responsibility to SGC students is not limited to the classroom. I take very seriously my role as a student advisor, mentor, career counselor, and college ambassador. As Chairman of the SGC Retention Task Force, I took various measures to improve student advising at SGC, including implementation of a Student Advisor Evaluation form, a two year course schedule to aid in

student course planning, an Academic Advising Worksheet to aid advisors, advisor training workshops, and an enhanced advisement handbook. My superiors will confirm that I have displayed great interest in improving the SGC academic advising process, and in personally becoming more knowledgeable in the area of advisement. I attended the Medical College of Georgia allied health student advisement workshop and the Noel Levitz student advisement and retention workshop. As clearly inferred in the student letters of support, my policy goes beyond "open-door." I supply my advisees and other students with information to help them make career decisions, and I help them find the schools with transfer programs in their area of interest. I serve as advisor, mentor and career counselor for my students long after they leave SGC.

I am actively involved in many SGC student activities on campus. As I said above, I serve as faculty advisor for the Environmental Awareness Club (EAC), a favorite among campus student organizations. A new initiative this year is combined EAC and Phi Theta Kappa (PTK) club activities to involve more students. I served this year as guest speaker for Fellowship of Christian Athletes on the subject of my mission trip to Ukraine, as well as delivering a presentation on the subject of biological weapons for campus students, faculty and staff. The latter event was hosted by EAC and PTK. I participate in SGC club showcases, open house days, and probe fairs. I participate annually in Students Against Illegal Drugs (SAID) field day activities, and Acts of Kindness (A of K) activities for SGC dorm residents welcoming them in the fall and encouraging them during final exams.

No individual can ever arrive at the pinnacle of professional excellence. There is always more to learn, in this case about teaching & learning. There is always room for improvement. There is always need for change. We as teachers must evolve, adapt and improvise to meet the needs of a changing world and its students. As new or improved teaching/learning methods and technology become available the dedicated educator will make the effort to learn, evaluate, and if appropriate, assimilate them into the learning experience of their students. Most educators will avoid this extra work continuing to do only what they must. **I want to learn more about teaching and learning. Learning opportunities that I have taken advantage of include the following.** I attend the annual State of the Art in the Teaching of Biology (SOTAB) conference in January of each year at the continuing education center on the UGA campus. I attended the first annual Teaching of Science, New Approaches, conference at Kennesaw, April 2001. I participated in the Summer 2001 session of the Governors Teaching Fellows Program.

Before returning to a doctoral graduate program I was employed as a Quality Control manager in the pharmaceutical industry. A philosophy that was forever burned into my mind by upper management was the value of listening to the customers. The customer will tell you what you are doing right and what you could improve. If you embrace this philosophy the result is a better product and a customer who respects you. Now I am a teacher and my students are my customers. As Gomer says, "Shazam!" It works here too, maybe more than in industry. Why? Our students are perceptive. They have been exposed to lousy teachers before and have learned how they operate. Students know it is easier to teach one way, the easiest way, than it is to devise additional methods to accommodate those who are not being reached with the standard method. The student knows if you are going further than you must. They know the difference in a teacher who is simply collecting a check and one who is genuinely concerned with their learning and with their success. Again, why does this philosophy work so well in teaching? If you are doing more than you must and giving of yourself to improve the students as people, the students know it. This is a very personal thing. This breeds respect. Now they will listen to you, even if they do hate Biology. I believe my students would tell you that this describes me as a teacher.

I regret that one component of this evaluation process is not interviews with selected students, or better yet, with all former and current students. Of course, this is impossible but it would reveal the overall impression of the students regarding a teacher, which is perhaps the best means of honestly determining teaching excellence. Much of being a great teacher involves intangibles that cannot be easily defined or sufficiently described in a letter, or accurately measured in tables and graphs. They can only be appreciated when expressed, informally and at length, by those who have been impacted; the students. My students know that I teach because I love to teach, and they know that I truly care about their success. I strive to be a great teacher because I believe I have been given an awesome responsibility, and that it is my duty to be the best that I can be. **My methods, efforts and philosophy reflect my estimation of what will best serve the students.** Thank you for considering me for this honor.

January 7, 2002

Regents' Teaching Excellence Award Recommendation for Dr. Timothy L. Rhoads

It would be difficult to find a better candidate for a Regents' Teaching Excellence Award than Dr. Timothy Rhoads. From the moment he began delivery of his sample interview lecture with a gush of laughing enthusiasm it was obvious he would be a teacher able to relate effectively to students, and so he has. His student evaluations are superb, and, it is a common occurrence to see him consulting with students outside of, as well as inside, class.

Dr. Rhoads puts his philosophy of meeting students where they are and employing methods compatible with their learning styles to guide them through the educational process into active practice. He employs traditional methods such as lecture, chalkboard notes, handouts, and writing assignments. He also employs newer methods such as power point presentations, group investigations, peer evaluation, and internet searches. He attempts to create genuine "learning communities" within his classrooms. His teaching efforts are supported by a variety of on-line study aids for students such as study tips, test taking suggestions, and on-line laboratory exercises. As Dr. Rhoads supervisor, I have received several unsolicited letters from students and community members praising his efforts and their results.

As everyone knows, student learning is not confined to classrooms and laboratories. Much important learning takes place in other venues. Dr. Rhoads has become an important player in those other venues. He co-chairs the district Science Olympiad for Middle School Students held annually on the SGC campus. He chaired the campus Retention Task Force which fostered many ideas for improving student success. He has worked actively in providing programs for SGC's PREP program for pre-college students. He serves as faculty advisor for the Environmental Science Club. Those activities are only a few of the ways he fosters education outside of the organized class structure.

I can not end this letter without recognizing Dr. Rhoads efforts in writing proposals for funds to improve our educational program. Funding from those proposals has provided much needed equipment from an autoclave to computer software. That equipment has been a real boon to divisional teaching support. South Georgia College is blessed with a variety of truly excellent teachers and Dr. Timothy Rhoads is surely one of the most effective in that elite corps. It is an honor to recommend him for a Regents' Teaching Excellence Award.

> Sherrill Watts, Chair Natural Sciences and Mathematics

January 4, 2002

Regents' Teaching Excellence Award Recommendation for Dr. Timothy L. Rhoads

I have known Dr. Tim Rhoads for four years and I enthusiastically endorse his nomination for the Regents' Teaching Excellence Award. We have worked closely together on a number of committees and I have seen first hand his dedication and commitment to advancing student learning. In addition, he has a real heart for student retention and goes out of his way to help our students succeed and stay in school.

Dr. Rhoads chaired our Retention Task force, spearheads the Science Olympiad, works closely with our Science Fair, and advises the Environmental Awareness Club. Through these activities, he interacts closely with both faculty and students outside the classroom setting, and I have observed firsthand the mutual respect and comradery he maintains with his students.

The best support for his nomination, however, comes from what students say about Dr. Rhoads "behind his back." In my position as Registrar, I routinely hear what the students have to say about all the professors. The overwhelming consensus about Dr. Rhoads can be summed up in three words: demanding, thorough, and compassionate.

Demanding. Students consistently tell me that Dr. Rhoads is one of the hardest professors they have ever had. He expects them to achieve and sets a very high bar. He actually expects them to synthesize information and understand concepts, not merely memorize facts.

Thorough. Students know that when they finish Dr. Rhoads' class they are more than prepared for the next course in the sequence. The many nursing students who take Dr. Rhoads' microbiology class know without a doubt that they are prepared for that aspect of nursing.

Compassionate. This is perhaps the adjective most often used to describe Dr. Rhoads. Students have described in detail to me his willingness to answer questions, both in and out of the classroom. Students keenly sense that he desires for them to succeed, and that he will help them do so. He works with them on *how* to study, not just *what* to study. While he has indeed set up a very high bar, students tell me that he does everything in his power to help them clear the bar.

Dr. Tim Rhoads is an excellent choice for the Regents' Teaching Excellence Award.

Sincerely,

Randy L. Braswell, Ph.D. Director of Admissions, Records, and Research

University System of Georgia

1509 Golden Road West Tifton, GA 31794 (229) 386 4377 Fax (229) 386 2950

January 7, 2002

Board of Regents University of Georgia System

Gentlepersons;

Dr. Tim Rhoads is a teacher with an almost unheard of commitment to getting his students to think and understand the concepts of biology not just rehash memorized facts. Besides this commitment, he is getting the job done by spelling out his expectations. His philosophy of teaching is clear and it works. I am indebted to him because I am wholeheartedly borrowing from him with his support. He is where I want to be regarding the philosophy of teaching. The kernel of one of these techniques is to have two sets of notes; the first is written during class and the second neatly rewritten after you have answered your own questions. When I puzzled out this simple technique in graduate school in plant science, my grades improved and my studying was much more efficient. That he is thinking beyond the basic material to what is required to understand science shows his dedication to teaching.

When I started teaching I had expectations that the freshman students could do some basic things like writing reports, researching topics, and having some idea how to study. There is a disparity in what is expected in learning between college and high school for many students. Dr. Rhoads knows the challenges that students face and frankly teaches them what they need to succeed in his classes and in assimilating science in general. I was gratified by his clear presentation of this information to his classes. I have had his students tell me that they are truly grateful for his sincerity and common sense. They particularly appreciate that he uses whatever means required to get the information across. Using different technical approaches and techniques is 'multimedia' at its finest and even includes writing on the chalkboard. He definitely is someone that should be emulated by many teachers in the system today.

Dr. Rhoads emphasizes that the students need to learn to learn, learn to understand, and learn to think. He realizes that to gain these things one needs coaching/mentoring more than instructing. This is where he shines in his one-on-one interaction with his students. It is always best when someone can learn on their own but in the real world that doesn't happen to the majority of students. When a teacher can teach learning, the student will have gained something more important than the basic information itself.

Sincerely,

= plutter

Edward L. Lubbers, Ph.D. Plant geneticist

Jennifer Johnson

138 Westwood Heights Circle Douglas, GA 31533

November 7, 2001

Board Of Regents Of The University System Of Georgia 270 Washington Street, S.W. Atlanta, GA 30334-1450

Dear Board Members,

I can think of no one more deserving to receive the "Regents Teaching Excellence Award" than Doctor Tim Rhoads. Dr. Rhoads has always gone out of his way to help his students understand science better. Dr. Rhoads gives his students ample opportunities to learn. He is always willing go the extra step to make sure you understand the subject he is teaching.

Dr. Rhoads seems to have such a compassion for his students in general. Dr. Rhoads wants to see his students succeed. For example, on several occasions, I have stopped by Dr. Rhoads office for help with material we covered in class. Each time Dr. Rhoads made me feel welcome and comfortable as he helped me better understand science. He stresses that his office is always open to anyone.

Dr. Rhoads always approaches his students on a level they can understand. He is able to teach and answer questions on a level all students can learn. During lectures, Dr. Rhoads uses superb analogies to relate ideas to help his students better understand the concept of what he is teaching. As well, Dr. Rhoads always makes it easy for his students to ask questions during class. Some teachers almost make you feel intimidated to ask a question. Dr. Rhoads, however, welcomes inquisitiveness. In fact, he encourages his students to ask questions. He loves for his students to want to learn more about science.

I am a Biology major and Dr. Rhoads has shown so much care in helping me learn as much as possible about Biology. Dr. Rhoads has such a passion for science and he wants to share it with his students. During class, he always makes the statement, "If any of you want to learn more about this or go into greater detail, please come by my office any time."

Not only is Dr. Rhoads a great teacher, but he has also been a super advisor. When I began studying at South Georgia College, I was not sure what area of Biology I wanted to focus on. With Dr. Rhoads guidance, I have been able to narrow my fields of interest. Dr. Rhoads has advised me on numerous occasions about the different areas of Biology I can study. He has given me a wealth of information that is helping me choose the field of Biology that I am most suited for.

Dr. Rhoads would be an excellent choice for the "Regents Teaching Excellence Award". Dr. Rhoads has guided me, and others I am sure, towards a brighter future by being such a caring teacher. I know my future education will be even better because of the opportunities Dr. Rhoads has shown me.

Sincerely,

shran Jennifer Johnson

Jenniter Johns

JJ/bdm

Dear Board of Regents,

I am writing in support of Dr. Timothy Rhoads for the Fiscal Year 2002 Regents Teaching Excellence Award. I have known Dr. Rhoads for roughly 4 and 1/2 yrs. In those years, I've had many excellent professors and advisors. In my mind, Dr. Rhoads stands out among all of them.

My college career began at South Georgia College. I took Dr. Rhoads's Biology 1107 class in my 2nd year at SGC. I found his class challenging yet fun. One could not merely memorize facts and regurgitate them on his tests. His tests forced me to integrate and apply all of the information I learned. This is a very important skill that should be learned by all students. In the classroom, he always encouraged in-class participation and urged students to ask questions. He was always available to students before and after class. He also required his students to do an oral presentation and a research paper, which I feel are important skills for one's academic success.

At SGC, I became a tutor for the Student Support Services. It was then that I realized just how much Dr. Rhoads cared about his students. As a student, I was blessed to have pretty good grades in Dr. Rhoads's class, so I did not really need any additional time from him. However, as a tutor, I worked with many students that struggled in the math and science area. It was then that I realized just how much extra time he invested in his students. Periodically, Dr. Rhoads would sit down with my tutees and I and we all would go over the student's tests to see just what they were having a problem with. He made my job as a tutor much easier.

As I continued my education at SGC, I found myself at a crossroad. I was considering many careers. At that time, I was working with Dr. Rhoads as a lab tech in his microbiology lab. As I conferred with him periodically, I can remember him telling me not to sell myself short and that I was very capable of achieving anything that I set my mind to do. He was very influential in my decision to go to medical school. I have always had good grades, but I sometimes questioned my ability to perform and compete at the higher level expected by those in medical school. It was Dr. Rhoads who helped me realize that I was capable of becoming a doctor.

I concluded my education at SGC with a 3.95 grade point average and then transferred to the University of Georgia to pursue a Bachelor's degree in Biology. At UGA, I realized how rare and valuable it is to have a professor that would actually give his or her "all" to help a student. At a school the size of UGA, a professor's time is stretched to the limit. It seemed that many of the professors were researchers first and teachers second. This is not true of Dr. Rhoads. Even while at UGA, I could still count on Dr. Rhoads for help with anything, even on the weekend. In particular, he was extremely helpful in my microbiology class. He never hesitated to offer his time, advice, and even his personal books.

I was able to maintain a 4.0 at UGA and in my first semester of medical school at the Medical College of Georgia. It seems that Dr. Rhoads was correct. I now have the confidence that I can compete at any educational level. I feel I owe a lot of my accomplishments to the help and support of Dr. Rhoads. Over the years, Dr. Rhoads has served as someone I could look up to, count on, and confide in. Not only is he a great teacher, but he is also a great friend. I feel very confident that Dr. Rhoads has all of the qualities that you are looking for in a recipient for this award.

Sincerely,

ilan A. Tam

Marc A. Tanner

Audrey Williams 300 Home Park Ave Apartment 602 Atlanta, GA 30318

December 14, 2001

Subject: Letter of Recommendation for Dr. Timothy Rhoads

Board of Regents of the University of Georgia System:

I am so very pleased and honored to write this letter for Dr. Rhoads. I had the pleasure of being a student of his from 1998-2000 at South Georgia College. I took Biology Principles and Microbiology under him. He has incredible ways of keeping students motivated by his methods of teaching. When teaching, he draws models on the board to convey exactly what he means. He encourages his students to be vocal and ask a question when material is not thoroughly understood. Throughout my time at South Georgia College, Dr. Rhoads proved continuously to be an excellent professor.

One important aspect of being a professor is being willing to communicate openly and readily with students. When I needed to talk to him about concepts I was having trouble with, his door was always open. His door was even open at 6:30 a.m. when I came in to work on my bacterial unknown project! He really enjoys teaching and I believe that is what sets him apart from other professors.

Challenging students is something that is so very essential to him. He wants students to do their very best, never ignoring their true potential. He expects his students to act like adults, and in return he treats his students as adults. Coming to class, listening, and being a diligent student are all required to meet his expectations. I, personally, think we, as students need more professors who want to challenge us, yet want us to do well at the same time. Dr. Rhoads fosters the need for challenge in his students. After all, where would any of us be without being challenged in life?

Due to Dr. Rhoads' overwhelming encouragement, I grew not only as a student, but also as an individual. I began to feel that I could do anything I wanted as long as I worked hard for it. I maintained a 4.0 the two years I attended South Georgia College, and received numerous awards including Academic Student of the Year and Sophomore of the Year Award. I am currently a senior attending The Georgia Institute of Technology. Georgia Tech is famous for its academic rigors. Dr. Rhoads helped to instill in me the importance of studying hard and believing in myself. With this, I have continued to do well here at Georgia Tech, with the honor of making the Dean's List. I truly believe that professors can have a profound influence on a student's life. In my case, Dr. Rhoads is the professor that has motivated me to be the paramount student I can be. I will always be grateful for having the opportunity to study under such a superb leader.

Respectfully, Show- Williams unless -Audrey Johnson-Williams

Documenting teaching success: a)teaching methods successes b)particular student successes

a)teaching methods successes:

For each of the links referred to below please see the "Regents Teaching Excellence Awards" link on my homepage at <u>http://www.sgc.peachnet.edu/users/trhoads/WWW/index.html</u>. The order of the links on the webpage agrees with the order in which they are referenced in this document.

As every teacher should do, I constantly examine my teaching methods for inadequacies that can be addressed with updates to existing methods and/or implementation of additional methods. Such modifications are numerous. I could write a book on this but never fear. I have limited space and have documented only a few examples below. Most of these apply to the lab, but then, the lab is a wonderful classroom.

1) The Microbiology course (BIOL 2215) at SGC primarily serves nursing and other allied health students. When I came to SGC I felt that the classroom and laboratory components of the course were antiquated, not reflecting the necessary knowledge, methods and concepts that would be encountered by our graduates in modern health care endeavors. To remedy this I did several things. First, I organized an advisory committee of health care professionals in the community and surrounding area, who are willing to serve in an advisory capacity. Collectively, this committee has expertise in pathology, diagnostic methods, nursing, medical technology and hospital administration. All lab and class updates discussed below were proposed to this committee for suggestions, approval, etc. I revamped the lecture portion of the course. I included a new "pathogenic microorganisms" section which included the time-tested gambit of pathogens as well as significant newly emerging pathogens. I added new sections on anti-microbial therapy, immunization, serological diagnostics and immune disorders. For additional exposure to information on newly emerging diseases, and to give the students experience conducting internet research, I implemented a computer project (refer to the "BIOL 2215 SLRC project" link). Students must use the Emerging Infectious Diseases link at the Centers for Disease Control website to find information on 5 emerging infectious diseases, which they must then report on in one fashion or another. I find that computer/internet experience is especially needed in a course such as BIOL 2215 which services largely non-traditional students.

Next, I focused on the lab component. I submitted 2 Teaching and Learning grant proposals in 97' and a third in 98' that addressed this issue (refer to "T&L grant proposals for Microbiology" links). The funds from these proposals were used to purchase equipment and supplies for a number of lab updates which included, but not limited to the following: sterilization and aseptic technique, effects of mutation on living organisms, use of semi-automated and automated microbial identification methods, bacterial antibiotic resistance/susceptibility testing, etc.

Rather than using empirical data to measure the effectiveness of these improvements, I rely on the opinions of the capable advisory committee. As I said above, these individuals have been involved in each update from the beginning, and they are pleased with the outcome. After speaking to the Chairperson of our nursing department, I can also report that our graduating nursing students have an employment rate of practically 100%. Most of these students have procured employment before graduation. Furthermore, our nursing students consistently perform above the national average on the National Council of Licensure Examination.

2) One topic that we study in my Environmental Science (SCIE 1121) course is Meteorology. Perhaps the most difficult meteorological concept for students to comprehend involves the interrelation of factors affecting weather patterns, specifically the interrelation of pressure systems, the jet stream, air temperature and atmospheric moisture. Students had little trouble with these concepts independently, but when required to integrate these ideas to predict weather patterns many students were confounded. Initially, I addressed these interrelations in class using static visual aids such as drawing on the board, use of transparencies, and using static internet weather maps and models. After I dwelled on this problem for some period of time the obvious occurred to me: weather is not a static phenomena. I was trying to use a static medium to convey dynamic phenomena. As has happened many times, I felt stupid, got over it, and came up with a solution. I searched for, and quickly found an on-line weather modeling tool which allows the user to enter values for several weather variables, predict the effect of the selected values on the weather system, then watch as the program displays the calculated track. Students could then see their

error, correct it, and re-run the weather dynamic. The students really enjoy this exceptional learning tool. I used 10 questions in an extended matching set to measure the effectiveness of this on-line learning tool in improving student comprehension. These particular questions were designed to determine the students ability to comprehend the interrelation of various factors affecting weather patterns. I compared the mean score of all SCIE 1121 students on these questions during the term immediately prior to using the on-line tool with the term during which the tool was first used, and was pleased to discover an 8% increase.

3) I intend for laboratory exercises to reinforce understanding of concepts through hands-on application of the theory discussed in class. For this reason, attentiveness in lab is critical. Despite my efforts to stimulate attentiveness, such as by trying to make labs interesting and interactive, I came to realize that some students were getting little benefit from lab. I needed an additional tool to induce mental participation during and after every lab exercise. One can be there without being there mentally, but it is impossible to write without thinking, at least a little bit. My simple yet effective remedy was that each student would write short synopses of each exercise which reflect their comprehension of the concept (refer to "rules for lab synopses" and "portfolios" on pages 3 and 4 of the "BIOL 1107 syllabus" link). These synopses proved especially effective for improving comprehension on exercises covering relatively difficult concepts, such as enzyme kinetics and properties of chlorophylls in photosynthesis. To measure this effectiveness, I used 2 classroom exam and 2 lab exam questions. These were thought questions, requiring a clear understanding of saturation kinetics, enzyme active sites, and the relationship between chlorophyll hydrocarbon chain length, polarity and solubility. Comparing the mean score of all BIOL 1107 students on these 4 questions during the term immediately prior to implementing the lab synopses with the first term during which they were used, I was pleased to see a 13% increase in scores.

4) All students, whether they be science majors or not, benefit from a clear understanding of the "scientific method." It is a systematic way to address practically any question that arises in life. One of my objectives for the laboratory course is to teach students how to use the scientific method. I believe this is best done by exercising their application of the concept in experiments as follows: data is gathered, standard curves are prepared from which more data is gathered, from which conclusions are drawn. The 2 best scientific method-type exercises I used were the enzymes (week 5) and photosynthesis (week 11) labs. Logically, I expected students to exhibit a greater understanding of the scientific method as the semester progressed. However, when I compared the thought processes relating to the scientific method in laboratory reports on these 2 exercises, I was disappointed in the apparent lack of improvement from one report to the next. To correct this, I designed a remedial exercise in which students use the scientific method on a problem relating to diffusion and osmosis (refer to the "scientific method exercise" link), and scheduled this exercise between the enzymes and photosynthesis labs. I did not require the students to write a normal lab report for the remedial exercise, but rather that they summarize in their weekly synopsis exactly how this exercise exemplified the scientific method. I was pleased to find that after students had performed this remedial exercise their comprehension of how the scientific method related to the photosynthesis lab exercise improved by a dramatic 21%! This improvement was measured by comparing the difference in mean scores of the scientific method/discussion component of the enzymes and photosynthesis lab reports before and after implementation of the remedial exercise.

5) Students have difficulty following the mechanics of the 3 genetic processes (replication, transcription and translation) in first semester Biology. They have no great difficulty with the terminology or with understanding and distinguishing the purpose of these processes, but they do have trouble with the progression of steps in their operation. Three years ago, at the suggestion of a non-traditional student who had taught for several years in the Navy, I developed a series of hand-drawn overlay transparencies that could be used to illustrate the processes. This visual aid was moderately effective in improving student comprehension, as measured by improved responses on 4 exam questions (2 class and 2 lab) requiring thorough understanding of the processes. However, I was not satisfied. I soon realized that to grasp something as intricate as these processes would require hands-on experience. What I needed was a model, or puzzle of a sort, that the students could use to simulate the mechanics of (to "build") these processes, and relate this experience to their notes from class. I found no commercial product to accommodate this need so I made one myself. I printed images of nucleotides, codons and other necessary biomolecules on colored paper, generated a document that instructed students what to do with the models, and used this as a learning tool in class and lab meetings (refer to the "molecular genetics exercise" link). The results were encouraging. Using the 4 questions referred to above as an indicator of

comprehension, I compared the mean score of all BIOL 1107 students during the term immediately prior to using the overlay transparencies with the term during which the transparencies were first used, and discovered an 8% increase. When the analysis was repeated, this time comparing the mean scores of all students during the terms immediately before and after the molecular genetics models lab was implemented, I discovered a 36% increase! Obviously, these models are an effective learning tool.

6) Another concept in first semester Biology that students find difficult to comprehend is the generation and consumption of membrane potential arising from the process of cellular respiration. Although this may sound like an obscure topic, it is actually foundational for the understanding of many biological processes. The concept is not only difficult for students to comprehend but also difficult for an instructor to convey to students who have little or no science background; a sort of chicken and egg situation. Students must have some understanding of charged particles (ions) and their behavior, barriers to the movement of charged particles (membranes), and bio-machines that build and utilize gradients of these particles. Prior knowledge of chemistry and physics certainly helps here, an advantage which few first semester Biology students enjoy. I fear that this contributes to low confidence thus low morale. This is only part of the problem. It is easier to comprehend that which you can see. Students cannot see an ion gradient across a biological membrane, consequently, I believe they have trouble actually believing that they truly exist. This surely contributes to a lack of interest. I was faced with the challenge of somehow visually demonstrating these otherwise unseen cellular processes so that students would believe that the theory was not a fairy tale. I submitted a fiscal year 2000 information technology, Teaching and Learning grant to address this problem, and was funded (refer to T&L grant proposals, information technology" link). I proposed the use of a notebook computer linked to pieces of scientific equipment such as a pH meter, dissolved oxygen meter and an oxidation/reduction potential meter. I proposed that this equipment be used to conduct "proton efflux" experiments as demonstrations in the lecture setting or as laboratory exercises conducted by the students. In either case, this system would give students a unique opportunity to relate classical cellular respiration theory to "real time, in their face" experimental data using a computer. I submit that this system will benefit students in several ways. First, it will directly and visually demonstrate cellular respiration to students as discussed above. Second, it will allow students to test the effect of several factors on cellular respiration. Third, students will gain experience in linking "dirty hands" Biology to information technology, something which is fairly uncommon in the lifesciences. Fourth, students will be given an opportunity to use scientific equipment, see the data captured via an RS232 port, and to manipulate data using graphics programs. Fifth, I can present interested students with the opportunity to conduct voluntary, supervised, undergraduate research.

I do not yet have sufficient data to report accurate values on the effectiveness of this project, however, I can already see benefits. Students take the concepts of membrane potential and cellular respiration more seriously now, as I would take aliens more seriously after seeing one. Student interest is growing, and with it, student comprehension. I look forward to reporting the success of this effort in the near future.

b)particular student successes

I cannot take credit for the success of any student. I have no way of knowing if my influence was in any way responsible for a students achievement, even if they credit me for it. However, I am encouraged when students decide to pursue a life-science degree and career track after taking my course and/or being exposed to my advisement, only then realizing that they have found the vocation for which they were destined. It is certainly not my goal to "convert" students to science. I do, however, take great pride in the fact that I have taught science in a way that has inspired their interest in science, just as my first Biology teacher inspired that interest in me. I also realize the value in focus. The greatest of potential can be squandered with a lack of focus. It may be bold to say so, but I believe that I have helped many students achieve focus, and in doing so realize their potential. A few of the students who have indicated that my influence was instrumental in their career decisions are listed below.

*Mark Tanner: Please see the enclosed student letter from Mark. Mark was previously a pre-allied health major pursuing a career as a physicians assistant. After many times encouraging Mark that he was capable of excelling at anything he decided to do, Mark changed his major to Biology and prepare himself for medical school. Since this decision, Mark has maintained a 4.0 grade point average through his sophomore year at SGC, the remainder of his pre-med. curriculum and UGA, and through his first year in medical school at the MCG in Augusta. Mark contacts me often with academic questions or just to chat.

*Audrey Johnson Williams: Please see the enclosed student letter from Audrey. When I met Audrey she was unsure of her ability as well as her career goals. Although she vacillated between science and business, her true desire was clearly the pursuit of a life-science career. After taking my BIOL 1107 and BIOL 2215 courses, and discussing her options at length, Audrey was resolute in her confidence as a student and her decision to pursue a Genetics degree at GA Tech., where she has excelled in her first year.

*Jennifer Johnson: Please see the enclosed student letter from Jennifer. Like Audrey, Jennifer is an extremely capable student. More than Audrey, Jennifer was limited by a lack of self-confidence. It was clear that Jennifer loved livings things, and would love a career in which she worked with living things. After some Biology and some advisement (therapy - ha) Jennifer has deleted the words "I can't" from her vocabulary, and is determined to pursue a career in either veterinary medicine or environmental chemistry.

*Charles Alvarez and Michelle Jordan: Before I met these students both had already decided on careers in secondary education although neither knew which area of emphasis befit them. After taking my class and discussing their options at length, both were absolutely certain in their focus on science education with a primary emphasis in Biology. The transformation was amazing. I was honored as each student relayed to me the basis for their decisions: that I conveyed a love for teaching and personal fulfillment in doing my job. I am sorry if this sounds corny, but it is the truth and it is certainly appropriate in this context. I consider these 2 students to be my greatest success stories. Both have held course and excelled, Charles at Valdosta State and Michelle at Wesleyan. As you know, the state of Georgia is desperately shorthanded in science educators, perhaps most critically at the secondary education level. I am confident that these 2 stars will duplicate themselves as they teach in the future. As a side note, Charles also honored me with my first nomination for Who's Who Among American Teachers.

*Drew Paulk and Mark Day: Drew and Mark are 2 more bright and clearly science-minded students who were searching for direction. Both enjoyed Biology and Chemistry, but wanted to integrate and apply these interests to a common field, rather than study a pure science. Both were also adamant about working in "the field." After taking the Environmental Science course that I developed 2 years ago and researching the various career options offered by schools in the system, both students were clear in their focus: Mark is in the first year of an Environmental Engineering program at UGA, and Drew will begin a program in Environmental Toxicology next fall.

Descriptions of evaluation methods:

I have commented fairly completely on my evaluation methods throughout this portfolio, so I will not bore you with repetition. However, I would like to say a few words about testing. Examinations are certainly a traditional method of evaluation, but we don't have to use traditional types of exams. My exams are not traditional. The students would most definitely agree. I was fortunate that my doctoral major professor was an excellent teacher, and that he took an interest in teaching me how to teach. One of the many things that I learned from him was how to design an exam. He believes, as I do, that a well designed exam should measure the students level of understanding of the concept, as I discussed in the Reflective Statement portion of this portfolio. Of course, there is some amount of simple recall necessary for satisfactory performance on any exam, but memorization should not be the main objective. When I participated in the 2001 Governors Teaching Fellows programs, I was pleased to learn that the National Board of Medical Examiners has spent much time and money determining that the most effective type of exam for measuring understanding are "R-sets." I was pleased because this is the type of test that I have been proctoring since I began teaching. These R-sets are extended matching sections, each one having a particular theme. In such a matching section the tester can include many questions relating to a common concept yet worded in different ways. One question can be worded very similar to a definition stated in class. To answer accurately, the other questions can require students to consider the concept from different perspectives, to integrate ideas, and/or to apply the concept to a problem. In short, the first question requires memory whereas the others require true understanding and thought. Using this type of test, I can not only find out if the student has learned the concepts, but if they have learned how to learn. If not, I can try to help these students "where they are." This is how I test and how I use tests.

Students have heard the old cliché before, "you are not here to take tests." I know that is true and I know why, but do they? If we do not tell them why we say this they have no reason to listen. Worse still, if we do not somehow show them that we mean it by the way we test, we will lose their respect. I tell students exactly the type of tests that I give and why, on the first day of class. I give long tests that cover everything, so they better learn <u>everything</u>. I give challenging tests, so they better <u>learn</u> everything. As I discussed in the paragraph above, I pound the students with the idea that they must learn and understand the material, and that they will be required to THINK on my tests. I hope, after all of this, that my students realize that they are not "here to take tests" but rather, they are here to learn. As a matter of fact, I hope they realize that I am using tests as just one more learning tool.

Data and comments from recent student evaluations

Students rate instructors at South Georgia College each winter or spring term on a scale of 1 (lowest) to 5 (highest). The Department Chairperson, Dr. Sherrill Watts considers a rating of 3 to be acceptable. "Comprehensive average ratings" listed below include student responses on all 12 categories of evaluation which include items such as syllabus, text, handouts, organization, instructor knowledge, grading, expectations, and others. The editorials listed under "student comments" are combined for all classes taught that term unless otherwise indicated. The comments are unedited and copied directly from the student evaluation sheets on file in the Department Chairpersons office.

Academic year 1997-1998

Comprehensive average rating of instructor in BIOL 1107: 4.16 Average rating on question "I have a favorable opinion of this instructor" in BIOL 1107: 4.25

Categories receiving highest ranking: 4.42 on "Instructor tries to make course interesting" 4.42 on "Instructor is friendly and helpful"

Student comments for BIOL 1107, the only class taught this term: I don't think it could be taught any better. He has his act together. He does a great job. Excellent course. The instructor does a very good job of teaching.

Academic year 1998-1999

Comprehensive average rating of instructor: BIOL 1107: 4.25 BIOL 2211: 4.27 BIOL 2215: 4.43 Average rating on question "I have a favorable opinion of this instructor": BIOL 1107: 4.28 BIOL 2211: 4.21 BIOL 2215: 4.5

Categories receiving highest ranking: 4.52 on "Instructor explains student responsibilities" 4.55 on "Instructor relates material to other knowledge areas" 4.50 on "Instructor is friendly and helpful"

Student comments: Dr. Rhoads is a great teacher. This teacher is very well organized. He is always trying to help the students with the material. I believe the instructor does an excellent job. Great teacher. I like the way Dr. Rhoads presents his material: easier to understand that previous instructors I have had.

Academic year 1999-2000 Comprehensive average rating of instructor: SCIE 1121: 4.39

SCIE 1121 lab: 4.67 BIOL 2215: 4.71

Average rating on question "I have a favorable opinion of this instructor": SCIE 1121: 4.5 SCIE 1121 lab: 4.81 BIOL 2215: 4.71

Categories receiving highest ranking: 4.93 on "Instructor explains student responsibilities"

4.87 on "Instructor is friendly and helpful"

4.93 on "Grading is based on course objectives"

4.81 on "Instructor tries to make the course interesting"

Student comments: He is a wonderful teacher. He explains everything completely and clearly. Dr. Rhoads does a great job in the way he teaches his class. Dr. Rhoads is great. This class is by far the interesting and useful of all. He teaches how I like to be taught; conceptually. No suggestions - I like it the way it is. He knows all the ways to teach that are necessary. Dr. Rhoads is great! Very enjoyable. Dr. Rhoads is the best instructor at SGC. His teaching style is unique and easy to comprehend. He's doing a great job. No changes, he teaches this course well. It's a great class

Academic year 2000-2001

Comprehensive average rating of instructor: BIOL 1107: 4.38 BIOL 2215: 4.38 SCIE 1121: 4.55

Average rating on question "I have a favorable opinion of this instructor": BIOL 1107: 4.45 BIOL 2215: 4.33 SCIE 1121: 4.65

Categories receiving highest ranking: 4.81 on "Instructor tries to make the course interesting" 4.8 on "Instructor is friendly and helpful" 4.75 on "Instructor relates material to other knowledge areas"

4.72 on "Instructors presentations are clear and organized"

Student comments: Can't think of any recommendations, he does a great job. I feel Dr. Rhoads is a very good instructor. I enjoyed the class considerably. He is very pleasant. Instructor does an excellent job in teaching. Wouldn't change a thing in his teaching style. Perfect. Keep up the good work. Can tell he enjoys what he does and is a great teacher. No recommendations, just continue doing what you do best! He does a great job explaining the material. He always asks if we have any questions. Great instructor! Stay the same. I really don't have any suggestions, I think he is doing a good job already. He does great. Dr. Rhoads is a great instructor. Dr. Rhoads is excellent and is very knowledgeable. He is very fair. Good instructor.

Please notice the trend of increasing ratings each year on "comprehensive average rating of instructor" and "average rating on the question "I have a favorable opinion of this instructor". The only exception is the decrease in BIOL 2215 ratings from academic year 99-2000 to 2000-2001. I attribute this to the significant changes made in the course that are addressed in the section entitled "documenting teaching success." These changes added rigor to the course. Students don't often appreciate, although it is often what they need.