



University of Nevada, Reno  
Statewide • Worldwide

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## Memorandum

**TO:** Friedwardt Winterberg  
Chair of the Personnel Committee

**FROM:** Radu Presura  
Personnel Committee

**CC:** W. Patrick Arnott

**SUBJECT:** Peer visit to the ATMS 749 class taught by Dr. W. Patrick Arnott

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This memorandum reports on my observation of the ATMS 749 class taught by Dr. W. Patrick Arnott on Monday, October 30, 2008 at 11:00 a.m. in the Computer Lab. The class began on time, with 7 students present.

The first part of the class focused on MATLAB training for homework that require intensive calculations. One student presented very clearly a brief *introduction to MATLAB*. During this introduction and throughout the training Dr. Arnott guided the discussions and set the rhythm and the emphasis. The presenting student continued by presenting the use of MATLAB to solve a homework problem. Dr. Arnott helped students individually and encouraged them to help each other. The class continued in a very interactive mode with all students asking questions and the presenter and the instructor answering. After demonstrating the use of MATLAB, the presenting student created a simple tutorial program. The other students followed the explanation and reproduced the calculations on their computers. The instructor and the presenter assisted the other students in creating and correcting their code.

During the remainder of the class, Dr. Arnott walked the students through the homework. He demonstrated the use of a spectral calculator ([spectralcalc.com](http://spectralcalc.com)) required for the following complex homework, akin to a miniature team research project. Before presenting the code, he reviewed theoretical concepts involved in the propagation of light through the atmosphere. The students asked questions throughout the presentation. To make sure that the concepts and the use of the code were clear, Dr. Arnott concluded by asking questions. A few students were able to answer all questions. Before ending the class, Dr. Arnott made sure that all students were aware of their duties to the project.

## Memorandum

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**DATE:** Jan 12, 2007

**TO:** Ron Phaneuf  
Chair of Physics Personnel Committee

**FROM:** Bruno Bauer  
Associate Professor of Physics *Bruno Bauer*  
Physics Personnel Committee

**CC:** Friedwardt Winterberg, Physics Personnel Committee  
Katherine McCall, Chair  
Pat Arnott

**SUBJECT:** Peer visit to ATMS 749 class of Dr. Pat Arnott

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This memorandum reports on my observation of the ATMS 749 class of Dr. Pat Arnott, Thursday, November 16, 2006, 2:30-3:45 pm in LP 300. I visited the class from 2:30-3:20 pm.

- ✓ The class began on time, with 5 students present, all in the first 3 rows. Dr. Arnott had a jar of milk, a jar of water, a laser, and other props on the front table. He discussed atmospheric measurements with the students and asked if they had questions from last time.
- ✓ Dr. Arnott communicated the material very clearly.
  - The instructor spoke clearly.
  - Much of the instruction was done in conjunction with practical demonstrations. The students came to the front of the class and participated in the demonstrations, making observations and answering questions.
  - The instructor wrote clearly in large print on the board. His writing was visible despite the lights being off for the demonstration.
- ✓ The class was well organized.
  - Dr. Arnott started by informing the students that the day's topic was scattering and multiple scattering.
  - He displayed the next homework assignment (from an elaborate class web site) and indicated that this class meeting would provide information with which to do the homework problem.
  - The instructor interleaved writing notes on the board with practical demonstration activity involving the students.

# COLLEGE OF SCIENCE UNIFORM TEACHING EVALUATION FORM

**Course ID** ATMS 794 R001 <sup>749</sup>

**Instructor** Pat Arnott

**Semester/Year** Fall 2006

**Overall Score** 4.000 **100%**  
(Questions 5-9) LOWEST 1 SCALE 4 HIGHEST

1. What is your class standing?

a. Freshman (fewer than 30 credits)	0	0%
b. Sophomore (30-59 credits)	0	0%
c. Junior (60-89 credits)	0	0%
d. Senior (90 credits or more)	0	0%
e. Graduate Student	4	100%
f. Other	0	0%

2. What grade do you expect to receive in this course?

F	0	0%
D	0	0%
C	0	0%
B	2	50%
A	2	50%

3. The following most closely describes my assessment of this class relative to other college classes I have taken.

a. Among the least difficult.	0	0%
b. Less difficult than average.	0	0%
c. About average	1	25%
d. More difficult than average.	3	75%
e. Among the most difficult.	0	0%

4. The instructor was always present in class or arranged a substitute presentation or assignment.

YES	4	100%
NO	0	0%

5. The instructor communicated the material clearly.

a. Never	0	0%
b. Seldom	0	0%
c. Usually	0	0%
d. Always	4	100%

6. The course was well organized.

a. Never	0	0%
b. Seldom	0	0%
c. Usually	0	0%
d. Always	4	100%

# COLLEGE OF SCIENCE UNIFORM TEACHING EVALUATION FORM

Course ID

ATMS 794.R001

Instructor

Pat Arnott

7. The instructor was fair.

a. Never

0 0%

b. Seldom

0 0%

c. Usually

0 0%

d. Always

4 100%

8. The instructor was open to students' ideas and comments.

a. Never

0 0%

b. Seldom

0 0%

c. Usually

0 0%

d. Always

4 100%

9. The instructor was concerned that students learn the course material.

a. Never

0 0%

b. Seldom

0 0%

c. Usually

0 0%

d. Always

4 100%

10. Would you recommend this instructor to a friend?

YES

4 100%

NO

0 0%

## STUDENTS' COMMENTS

1. What did you like most about this course and/or instructor?

that it was a challenge

It was clearly very important to the instructor that every student really understand and learn the material.

The feedback and dialogue, both in class and on homework and tests was very helpful and effective. Great demonstrations and connection of material to the world outside the classroom.

The instructor's clear /concise teaching methods greatly assisted in the understanding of advanced subject matter. Dr Arnott's lecture's made the learning environment a pleasurable experience.

Plenty of Course materials to refer to. Instructor uses simple lab experiments in class during lecture periods that really helps make life easier for students to understand the material more efficiently. Instructor's webpage is handy and with lots of source links in that you don't have to stress out yourself googling in the outside internet world

# COLLEGE OF SCIENCE UNIFORM TEACHING EVALUATION FORM

Course ID

ATMS 794.R001

Instructor

Pat Arnott

2. What did you like least about this course and/or instructor?

nothing
NA

3. What suggestions, if any, do you have about how this course might be improved?

none
NA

4. Write any additional comments you may have.

none
Best class I have taken at UNR.
NA



# COLLEGE OF SCIENCE UNIFORM TEACHING EVALUATION FORM

<b>Course ID</b>	<b>ATMS 749R</b>	<b>Instructor</b>	<b>Arnott, Patrick</b>
<b>Semester/Year</b>	<b>Fall 08</b>	<b>Overall Score</b>	<b>4.000 100%</b>
		<b>(Questions 5-9)</b>	

1. What is your class standing?

a. Freshman (fewer than 30 credits)	0	0%
b. Sophomore (30-59 credits)	0	0%
c. Junior (60-89 credits)	0	0%
d. Senior (90 credits or more)	0	0%
e. Graduate Student	7	100%
f. Other	0	0%

2. What grade do you expect to receive in this course?

F	0	0%
D	0	0%
C	0	0%
B	2	29%
A	5	71%

3. The following most closely describes my assessment of this class relative to other college classes I have taken.

a. Among the least difficult.	0	0%
b. Less difficult than average.	1	17%
c. About average	3	50%
d. More difficult than average.	2	33%
e. Among the most difficult.	0	0%

4. The instructor was always present in class or arranged a substitute presentation or assignment.

YES	7	100%
NO	0	0%

5. The instructor communicated the material clearly.

a. Never	0	0%
b. Seldom	0	0%
c. Usually	0	0%
d. Always	7	100%

6. The course was well organized.

a. Never	0	0%
b. Seldom	0	0%
c. Usually	0	0%
d. Always	7	100%

# COLLEGE OF SCIENCE UNIFORM TEACHING EVALUATION FORM

Course ID ATMS 749R

Instructor Arnott, Patrick

7. The instructor was fair.

a. Never	0	0%
b. Seldom	0	0%
c. Usually	0	0%
d. Always	7	100%

8. The instructor was open to students' ideas and comments.

a. Never	0	0%
b. Seldom	0	0%
c. Usually	0	0%
d. Always	7	100%

9. The instructor was concerned that students learn the course material.

a. Never	0	0%
b. Seldom	0	0%
c. Usually	0	0%
d. Always	7	100%

10. Would you recommend this instructor to a friend?

YES	7	100%
NO	0	0%

## STUDENTS' COMMENTS

1. What did you like most about this course and/or instructor?

Pat can teach us a lot of things by explain a very simple phenomenon, and connect the theory and experiment very well.

Pat is always patient and kind to everyone.

Really helpful to the students, Encouraging and always ready to accept comments. I like his excellent teaching style. This is the best class I ever had. He has all quality to being a excellent instructor.

Interesting. Instructor's style of presentation is good.

very clear presentation.

The oppurtunity to learn and use new Homework skills

2. What did you like least about this course and/or instructor?

Sometimes, he gave us a homework which would take a lot of time, his homework si good, maybe he can simplify it for us.

His homeworks are always a little difficult.

## COLLEGE OF SCIENCE UNIFORM TEACHING EVALUATION FORM

**Course ID**

**ATMS 749R**

**Instructor**

**Arnott, Patrick**

Nothing much as I can say. Should also give more problem from Text, beside the excellent giving from research paper and web.

**3. What suggestions, if any, do you have about how this course might be improved?**

Simplify the homework.

I think, instructor is doing good job on it.

perhaps, the textbook.

**4. Write any additional comments you may have.**





College of Science  
University of Nevada, Reno

Katherine R. McCall  
Director

5 January 2009

Mr. Narayan Adhikari  
Mr. Madhu Gyawali  
Mr. Yi Li  
Mr. Stephen Noble  
Mr. Yadab Paudel  
Mr. Guoxun Tian  
Department of Physics  
University of Nevada, Reno/0220

Dear ATMS 749 class members,

Thank you for providing an outstanding experience for the members of the Women in Science & Engineering (WISE) program during your radiation transfer class (ATMS 749) on November 6, 2008. You had obviously spent many hours setting up equipment and monitoring measurements. You showed extraordinary patience and did an excellent job explaining your measurement processes. The members of WISE truly appreciated your efforts, as evidenced by at least one change of major to Atmospheric Science!

The syllabus for SCI 110 (First Year Experience: Science, Mathematics, & Engineering) will continue to include regular fieldtrips in the fall semester. Please let me know if you have any suggestions for other fieldtrips or ways in which these experiences could be improved. I hope you will continue to nurture your talent for science outreach while in graduate school and wherever your career takes you.

Sincerely,

Katherine R. McCall

Cc: Dr. Roberto Mancini  
Dr. W. Patrick Arnott

**Women in Science & Engineering (WISE)**  
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# COLLEGE OF SCIENCE UNIFORM TEACHING EVALUATION FORM

Course Title and Number/Section ATMS 411/611

Instructor ARNOTT, W. Pat

Semester/Year Fall

2005

Overall Score 3.885714 97%

(Questions 5-9)

1. What is your class standing?

a. Senior	<u>0</u>	0%
b. Junior	<u>0</u>	0%
c. Sophomore	<u>0</u>	0%
d. Freshman	<u>0</u>	0%
e. Graduate Student	<u>7</u>	100%
f. Other	<u>0</u>	0%
Total	<u>7</u>	

2. What grade do you expect to receive in this course?

A	<u>5</u>	71%
B	<u>1</u>	14%
C	<u>1</u>	14%
D	<u>0</u>	0%
F	<u>0</u>	0%
Total	<u>7</u>	

3. The following most closely describes my assessment of this class relative to other college classes I have taken.

a. Among the most difficult	<u>3</u>	43%
b. More difficult than average	<u>3</u>	43%
c. About average	<u>0</u>	0%
d. Less difficult than average	<u>0</u>	0%
e. Among the least difficult	<u>1</u>	14%
Total	<u>7</u>	

4. The instructor was always present in class or arranged a substitute presentation or assignment.

YES	<u>7</u>	100%
NO	<u>0</u>	0%
Total	<u>7</u>	

5. The instructor communicated the material clearly.

Always	<u>4</u>	57%	2.2857
Usually	<u>3</u>	43%	1.2857
Seldom	<u>0</u>	0%	0
Never	<u>0</u>	0%	0
Total	<u>7</u>		3.5714 89%

6. The course was well organized.

Always	<u>6</u>	86%	3.43	
Usually	<u>1</u>	14%	0.43	
Seldom	<u>0</u>	0%	0.00	
Never	<u>0</u>	0%	0.00	
Total	<u>7</u>		3.86	96%

7. The instructor was fair

Always	<u>7</u>	100%	4.00	
Usually	<u>0</u>	0%	0.00	
Seldom	<u>0</u>	0%	0.00	
Never	<u>0</u>	0%	0.00	
Total	<u>7</u>		4.00	100%

8. The instructor was open to students' ideas and comments

Always	<u>7</u>	100%	4.00	
Usually	<u>0</u>	0%	0.00	
Seldom	<u>0</u>	0%	0.00	
Never	<u>0</u>	0%	0.00	
Total	<u>7</u>		4.00	100%

9. The instructor was concerned that students learn the course material.

Always	<u>7</u>	100%	4.00	
Usually	<u>0</u>	0%	0.00	
Seldom	<u>0</u>	0%	0.00	
Never	<u>0</u>	0%	0.00	
Total	<u>7</u>		4.00	100%

10. Would you recommend this instructor to a friend?

YES	<u>7</u>	100%
NO	<u>0</u>	0%
Total	<u>7</u>	

## Evaluation Comments

ATMS

411/611.001

Instructor

Fall 2005

ARNOTT, W. Pat

### 1. What did you like most about this course and/or instructor?

- The thing I like most about the course was the different backgrounds the students have on how the instructor tried to incorporate each discipline into the lectures.
- The descriptive teaching ability. Hands on experience of the instructor.
- It was understandable. The prof took into account that even though this was a graduate level course, I had never had a course in atmospheres before. The course was advanced but not so far out there that it was impossible.
- The way in which he presented things.
- I liked the material covered, and the instructor's enthusiasm for that material.
- Very organized, friendly atmosphere
- 

### 2. What did you like least about this course and/or instructor?

- I don't have any major concerns about the class.
- Textbook. Have found better Atmospheric Science Survey Examples. The instructor did make a good effort to supplement text.
- Nothing.
- Not much to say here
- 

### 3. What suggestions, if any, do you have about how this course might be improved?

- The class was fine the way that it is.
- Field trip to related sites (course material). For example, National weather service tour/trip, Balloon launch.
- The exam wasn't over what was emphasized in the lecture. There was a lot covered in lecture & the exam didn't cover the majority of it. Maybe emphasize what will be on the exam. i.e.: how much detail is covered or you're only going to be tested on this aspect of something.
- Nothing
- Infrequently, the instructor would be talking a little over my head – ie jumping from basics to complex material a little too quickly.
-

#### 4. Other comments?

- Dr. Arnott is an asset for the physics department. His teaching ability is above average, and appears to be constantly improving. He is one of the best University professors I have encountered.
- Otherwise, I am very impressed with this instructor and his commitment to finding ways to transmit his knowledge to the class, rather than just lecturing from a text.
-

# COLLEGE OF SCIENCE UNIFORM TEACHING EVALUATION FORM

Course Title and Number/Section PHYS 425/625.001

Instructor ARNOTT, W. Pat Semester/Year Fall 2005

Overall Score 3.66 92%

(Questions 5-9)

1. What is your class standing?

a. Senior	<u>5</u>	50%
b. Junior	<u>2</u>	20%
c. Sophomore	<u>0</u>	0%
d. Freshman	<u>0</u>	0%
e. Graduate Student	<u>3</u>	30%
f. Other	<u>0</u>	0%
Total	<u>10</u>	

2. What grade do you expect to receive in this course?

A	<u>5</u>	50%
B	<u>3</u>	30%
C	<u>2</u>	20%
D	<u>0</u>	0%
F	<u>0</u>	0%
Total	<u>10</u>	

3. The following most closely describes my assessment of this class relative to other college classes I have taken.

a. Among the most difficult	<u>4</u>	40%
b. More difficult than average	<u>5</u>	50%
c. About average	<u>1</u>	10%
d. Less difficult than average	<u>0</u>	0%
e. Among the least difficult	<u>0</u>	0%
Total	<u>10</u>	

4. The instructor was always present in class or arranged a substitute presentation or assignment.

YES	<u>10</u>	100%
NO	<u>0</u>	0%
Total	<u>10</u>	

5. The instructor communicated the material clearly.

Always	<u>3</u>	30%	1.2
Usually	<u>6</u>	60%	1.8
Seldom	<u>1</u>	10%	0.2
Never	<u>0</u>	0%	0
Total	<u>10</u>		3.2 80%

6. The course was well organized.

Always	<u>5</u>	50%	2.00	
Usually	<u>5</u>	50%	1.50	
Seldom	<u>0</u>	0%	0.00	
Never	<u>0</u>	0%	0.00	
Total	10		3.50	88%

7. The instructor was fair

Always	<u>9</u>	90%	3.60	
Usually	<u>1</u>	10%	0.30	
Seldom	<u>0</u>	0%	0.00	
Never	<u>0</u>	0%	0.00	
Total	10		3.90	98%

8. The instructor was open to students' ideas and comments

Always	<u>9</u>	90%	3.60	
Usually	<u>1</u>	10%	0.30	
Seldom	<u>0</u>	0%	0.00	
Never	<u>0</u>	0%	0.00	
Total	10		3.90	98%

9. The instructor was concerned that students learn the course material.

Always	<u>8</u>	80%	3.20	
Usually	<u>2</u>	20%	0.60	
Seldom	<u>0</u>	0%	0.00	
Never	<u>0</u>	0%	0.00	
Total	10		3.80	95%

10. Would you recommend this instructor to a friend?

YES	<u>10</u>	100%	
NO	<u>0</u>	0%	
Total	10		

## Evaluation Comments

Fall 2005

Physics 425/625.001

Instructor

ARNOTT, W. Pat

### 1. What did you like most about this course and/or instructor?

- We consistently progressed . . . didn't get stuck on any one topic for too long.
- Course: extra credit quizzes. Instructor: Good attitude/sense of humor
- I liked the material most, it is very interesting stuff and I really liked the fact that the instructor tried to tie in the material with experiments
- The thermodynamics aspect of the course.
- The instructor was a hoot. I enjoyed the homework problems, believe it or not. The class gave me an idea of what goes on "out there".
- Dr. Arnott is an excellent teacher. His lectures are very organized. He wants everybody to understand the concepts & receive good grades.
- The lectures were interesting to listen to
- Instructor was enthusiastic. Course covered critical material with broad application.

### 2. What did you like least about this course and/or instructor?

- -- Too much lecture material come directly out of the text.
- -- insanely long and hard homework
- I believe the instructor needs to make his lectures more clear. (as in show all the steps in a process) -- he did not post solutions to h.w.
- A lot of the homework was assigned and due prior to ever review the material in class. Instructor taught straight out of the book, no extra examples.
- Further example problems, book has few, and none are ever done in class.
- Thermal is a dense subject, and I don't blame the instructor for me not understanding the lectures. Just conceptually a difficult subject.
- I didn't like the book that much.
- It was time consuming, The book didn't offer any examples.
- -- The text book wasn't a good choice, it is old 1965 and much of S. M. specially in the Using Model is (unintelligible). – The instructor focus in a way too much on the quantity of material that he covers instead of focusing on quality of teaching.



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**3. What suggestions, if any, do you have about how this course might be improved?**

- I would suggest that you stray from the text during lecture . . . particularly when working examples. It is nice when lecture presents concepts from a slightly different point of view from the text.
- Lessen the homework load or difficulty
- Solve many more problems in class -- post solutions to h.w
- -- Change Text book. -- The Instructor should, in my opinion, focus on being systematic in going through (unintelligible) rather than focusing on quantity of material covered.

•

**4. Other comments?**

- Mainly a very good course.
- Unsure there was any difference between Grad and Undergrad as there should be.
- Honestly good teacher.