Faculty associated with the course

**Chairman** Dr. R.G. Thorn 213D B&G 661-2111 ext. 88647

E-mail: rgthorn@uwo.ca

Dr. M. Qaderi 305 B&G 661-2111 ext. 81100

E-mail: mqaderi2@uwo.ca

Course Administrator Irene Krajnyk 254 Staging 661-2111 ext. 86505

E-mail: ikrajnyk@uwo.ca

Course Web-site http://instruct.uwo.ca/biology/285b

Consultation Hours Dr. Thorn - Tuesday, Wednesday, Friday 2 - 3 p.m. or by

appointment

Dr. Qaderi - Tues. & Thurs. 2 - 4 p.m. or by appointment

I. Krajnyk - Hours posted on office door.

Who to contact for:

**Missed exam** ⇒ documentation to Dean's Office and I. Krajnyk **Missed tutorial** ⇒ documentation to Dean's Office and I. Krajnyk

**Missed lecture**  $\Rightarrow$  Dr. Thorn (lectures in January)

Dr. Qaderi (lectures from February to April)

**Tutorial content and choice of papers (See page 2)** 

Jeff Dech Liliana Rios Adam Yates

**Brief description** Biology 285b, Environmental Biology. Two lecture hours per week.

One - 2 hr tutorial period **once every two weeks**.

**Pre-requisite:** Minimum of 60% in Biology 022 or 023.

This course introduces environmental issues from a biological point of view. A global perspective is adopted when examining components of the environment, ecosystem structure and life-support systems and consideration is given to the impact of pollutants on these systems. A study of human population growth follows, investigating its impact on the planet, and the influence of human activity on resource use (soil, water, energy, agriculture, and plant and animal populations). Finally, possible remedial actions are discussed.

*Text* Cunningham, W.P., Cunningham, M.A. and Saigo, B.W. 2003. Environmental Science: A Global Concern. 7<sup>th</sup> ed. WCB/McGraw-Hill Publishers.

Marks allocation Mid-term exam (3 hours) 25%

Final exam (3 hours) 55%

Assignments 20% (see Tutorial #1)

Lectures UW/001 Tuesday & Thursday 1:00 - 2:00 p.m. Social Science 2050

## **Teaching Assistant Contact Information**

Jeff Dech354 B&G661-2111 x81118E-mail: jdech2@uwo.caLiliana Rios104A Collip661-2111 x86798E-mail: lrios@uwo.caAdam Yates104A Collip661-2111 x86798E-mail: ayates@uwo.ca

## Tutorial Sections, Times, and Teaching Assistants

**Location of Tutorials** ⇒ Room 250 Staging Bldg.

# TUTORIAL WEEK ONE (SECTIONS 002 TO 007) $\rightarrow$ BEGIN JANUARY 13<sup>th</sup> TUTORIAL WEEK TWO (SECTIONS 008 TO 013) $\rightarrow$ BEGIN JANUARY 20<sup>th</sup>

Week One			Week Two		
Tuesday	Wednesday	Thursday	Tuesday	Wednesday	Thursday
9-11	9-11	9-11	9-11	9-11	9-11
Section 002	Section 004	Section 007	Section 008	Section 010	Section 013
Adam Yates	Liliana Rios	Jeff Dech	Adam Yates	Liliana Rios	Jeff Dech
2-4	1-3		2-4	1-3	
Section 003	Section 005		Section 009	Section 011	
Adam Yates	Liliana Rios		Liliana Rios	Liliana Rios	
	3-5			3-5	
	Section 006			Section 012	
	Jeff Dech			Jeff Dech	

NOTE: For a complete schedule of Week One and Week Two tutorials refer to pages 6 & 7.

## Lecture Topics

Dr. G. Thorn	January 6 - January 29, 2004
Dr. G. 100ru	January 0 - January 29, 2004

1.	Principles of Environmental Science, Environmental Scientis and Environmentalist, Resource Conservation, Preserving Nature, and Human Development	
2.	Environmental Ethics, Politics, Economics, and the Environment	Chapters 2 & 8
3.	Matter, Energy, and Life	Chapter 3
4.	Biological Communities, Species, and their Interactions	Chapter 4
5.	Biomes, Landscapes, and Restoration	Chapter 5
Dr. M. Qa	nderi Fe	ebruary 3 - April 8, 2004
1.	Populations, Communities, Ecosystems	Chapter 6
	Populations, Communities, Ecosystems  Human Population Growth	_
2.		Chapter 7
2. 3.	Human Population Growth	Chapter 7Chapter 11
2. 3.	Human Population Growth	Chapter 7 Chapter 11 Chapter 14
<ul><li>2.</li><li>3.</li><li>4.</li><li>5.</li></ul>	Human Population Growth	Chapter 7 Chapter 11 Chapter 14 Chapters 19 & 20
<ul><li>2.</li><li>3.</li><li>4.</li><li>5.</li><li>6.</li></ul>	Human Population Growth	Chapter 7 Chapter 11 Chapter 14 Chapters 19 & 20 Chapter 12
<ul><li>2.</li><li>3.</li><li>4.</li><li>5.</li><li>6.</li><li>7.</li></ul>	Human Population Growth	Chapter 7 Chapter 11 Chapter 14 Chapters 19 & 20 Chapter 12 Chapter 13

#### **EXAMINATIONS**

## Mid - term Exam: Saturday, January 31, 2004 9:00 a.m. - 12:00 p.m. (Dr. Thorn)

Location to be announced at a later date. The exam will cover material presented in lectures and assigned readings.

## Final Exam: April 2004 (Dr. Qaderi)

Date, Time and Location to be announced at a later date. The exam will cover material presented in lectures by Dr. Qaderi, assigned readings and lead articles in Tutorials 2, 3, 4, 5, and 6.

## POLICY ON MISSED EXAMS

## Academic accommodations for religious holidays

Effective September 1, 1997 the Faculty of Science will strictly adhere to the University policy on accommodation for students based upon conflicts with religious holidays. (See page 36 in the current UWO Academic Calendar). Accommodation will only be granted for the specified date of the religious holiday. Only holidays appearing on the University-approved list of dates will be accommodated. See the Office of the Dean for the list of approved dates. Students requesting religious accommodation must do so, in writing, to the Office of the Dean, not later than March 1 for Spring (final) examinations.

## Absences due to illness or other reasons

Health or compassionate concerns must be documented with the **Dean's Office within 48 hours** of having missed an exam. Notify I. Krajnyk (also within 48 hours) in person or by phone (leave your name and **phone number**) or by e-mail. A student requesting accommodation in advance of writing the scheduled mid-term exam also must notify Irene Krajnyk at least one week before the scheduled date of the exam.

## Mid-Term Exam

For the mid-term exam there is **one** make-up. Anyone who does not write the original exam or the make-up exam and has a legitimate compelling excuse (**must be approved by the Office of the Dean of Science**) will have the weight of the mid-term (25%) added to the weight of the final exam. Without the authorized approval from the Office of the Dean of Science, a grade of 0% will be awarded.

## Final Exam

For those who have a legitimate reason for missing the final examination, there will be **one** written make-up examination given within one month of the final. Anyone who does not write the final exam or the written make-up exam and has a legitimate and compelling excuse (**must** be approved by the Office of the Dean of Science) will be allowed to do an **oral exam** set by the professor within one month of the final. Without the authorized approval from the Office of the Dean of Science, a grade of 0% will be awarded.

## Returning Mid-term Exam

You will be **notified in lecture** when the exam has been marked and grades tabulated.

#### Mark Revisions

Compare your answers with the expected answers posted on the bulletin board beside Room 250 in Staging Bldg. If you encounter a grading error on your paper and wish to appeal the mark, you can do so by completing a mark revision form (obtainable from I. Krajnyk in Room 254 Staging). Return your **exam paper with the form** to I. Krajnyk by the posted deadline. The question(s) will then be graded by the professor who set the exam. **Do not** ask for the whole exam to be reviewed because it will be returned unread and **do not** make frivolous requests for mark revision because adjusted grades can **go up or down.** Questions other than those specifically submitted for review may also be reviewed at the discretion of the professor.

## **TUTORIALS**

## **Tutorial section transfers**

Transfers may be made **only during the add/drop period** if you have a **direct course conflict**. You may only transfer into a section that is **under-enrolled**. If you **need** to transfer, please see Irene Krajnyk. She will attempt to fit you into an alternate **under-enrolled** section.

## POLICY ON MISSED ASSIGNMENTS

Health or compassionate concerns must be documented with the **Dean's Office within 48 hours** of having missed tutorials and notify I. Krajnyk (also within 48 hours) in person, or by phone (leave your name and **phone number**) or by e-mail. **Teaching assistants cannot provide academic accommodation for missed tutorials.** 

If you have a legitimate compelling excuse for missing the oral presentation (it must be approved by the Office of the Dean of Science), you will be rescheduled to present at another time. If it is not possible to reassign you to another tutorial section of the same topic area, you will be required to choose another article to present (see page 8). Without the authorized approval from the Dean of Science, a grade of 0% will be awarded. Attendance at your assigned section of Tutorial #1 is very important. If you miss your section of Tutorial #1, you may not get your choice of topic for presentation in Tutorials #2 - 6.

#### **Tutorial Schedule**

## Tutorial #1 Workshop on Oral Presentation

Week of: Jan.  $12^{th}$   $\rightarrow$  Sections 002 to 007 Jan.  $19^{th}$   $\rightarrow$  Sections 008 to 013

## Tutorial #2 Canada and the Environment

## **Lead Articles:**

Statistics Canada. 2000. Current environmental issues. *In* Human Activity and the Environment 2000. Cat. No. 11-509-XPE. Statistics Canada, Ottawa, pp. 3-16. **<on reserve in Taylor Library>** 

Draper, D. 2002. Meeting Environmental Challenges, Chapter 14. *In* Our Environment: A Canadian Perspective, 2<sup>nd</sup> ed. Nelson Thomson Learning, Scarborough, Ontario, pp. 484-508. **<on reserve in Taylor Library>** 

Week of: Jan. 26<sup>th</sup>  $\rightarrow$  Sections 002 to 007 Feb. 2<sup>nd</sup>  $\rightarrow$  Sections 008 to 013

## Tutorial #3 Food and Population: Effects on Human Demography Lead Articles:

Gardner, G. and Halweil. 2000. Nourishing the underfed and overfed. *In* State of the World 2000, L.R. Brown et al. (eds.). World Watch Inst. Rep. Norton & Co., New York, pp. 59-78 and 216-222. **<on reserve in Taylor Library>** 

Serageldin, I. 2002. World poverty and hunger - the challenge for science. Science 296: 54-58. <a href="http://www.sciencemag.org/cgi/reprint/296/5565/54.pdf">http://www.sciencemag.org/cgi/reprint/296/5565/54.pdf</a> <a href="https://www.sciencemag.org/cgi/reprint/296/5565/54.pdf">http://www.sciencemag.org/cgi/reprint/296/5565/54.pdf</a> <a href="https://www.sciencemag.org/cgi/reprint/296/5565/54.pdf">https://www.sciencemag.org/cgi/reprint/296/5565/54.pdf</a> <a href="https://www.sciencemag.org/cgi/reprint/296/5565/54.pdf">https://www.sciencemag.org/cg

Week of: Feb. 9<sup>th</sup>  $\rightarrow$  Sections 002 to 007 Feb. 16<sup>th</sup>  $\rightarrow$  Sections 008 to 013

## NO TUTORIALS DURING CONFERENCE WEEK FEBRUARY 23 - 27

## Tutorial #4 Global Environmental Impacts

#### **Lead Articles:**

Harvell, C.D., C.E. Mitchell, J.R. Ward, S. Altizer, A.P. Dobson, R.S. Ostfeld, and M.D. Samuel. 2002. Climate warming and disease risks for terrestrial and marine biota. Science 296: 2158-2162. <a href="http://www.sciencemag.org/cgi/reprint/296/5576/2158.pdf">http://www.sciencemag.org/cgi/reprint/296/5576/2158.pdf</a> <a href="http://www.sciencemag.org/cgi/reprint/296/5576/2158.pdf">http://www.sciencemag.org/cgi/reprint/296/5576/2158.pdf</a> <a href="https://www.sciencemag.org/cgi/reprint/296/5576/2158.pdf">https://www.sciencemag.org/cgi/reprint/296/5576/2158.pdf</a>

Ramanathan, V., P.J. Crutzen, J.T. Kiehl, and D. Rosenfeld. 2001. Aerosols, climate, and the hydrological cycle. Science 294: 2119-2124.

<a href="mailto://www.sciencemag.org/cgi/reprint/294/5549/2119.pdf"><a vailable online through UWO libraries</a>

Week of: March  $1^{st} \rightarrow Sections 002 \text{ to } 007$ March  $8^{th} \rightarrow Sections 008 \text{ to } 013$ 

## Tutorial #5 Threats to Biodiversity

#### **Lead Articles:**

Balmord, A., et al. 2002. Economic reasons for conserving wild nature. Science 297: 950-953. <a href="http://www.sciencemag.org/cgi/reprint/297/5583/950.pdf">http://www.sciencemag.org/cgi/reprint/297/5583/950.pdf</a> <a href="https://www.sciencemag.org/cgi/reprint/297/5583/950.pdf">available online through UWO libraries</a>

Myers, N., R.A. Mittermeier, C.G. Mittermeier, G.A.B. da Fonesca, and J. Kent. 2000. Biodiversity hotspots for conservation priorities. Nature 403: 853-858.

## <a href="http://www.nature.com/cgi-">http://www.nature.com/cgi-</a>

## taf/DynaPage.taf?file=/nature/journal/v403/n6772/full/403853a0\_fs.html&content filetype=pdf> <available online through UWO libraries>

Week of: March  $15^{th} \rightarrow \text{ Sections } 002 \text{ to } 007$ March  $22^{nd} \rightarrow \text{ Sections } 008 \text{ to } 013$ 

## Tutorial #6 A Sustainable World

## **Lead Articles:**

Janzen, D.H. 1999. Gardenification of tropical conserved wildlands. Proc. Natl. Acad. Sci. (USA) 96: 5987-5994 (excluding appendices, pp. 5990-5994)

## http://www.pubmedcentral.nih.gov/picrender.fcgi?artid=34217&action=stream &blobtype=pdf > <available online through UWO libraries>

Ferraro, P.J. and A. Kiss. 2002. Direct payments to conserve biodiversity. Science 298: 1718-1719. <a href="http://www.sciencemag.org/cgi/reprint/298/5599/1718.pdf">http://www.sciencemag.org/cgi/reprint/298/5599/1718.pdf</a> <a href="http://www.sciencemag.org/cgi/reprint/298/5599/"

Mann, C.C. 2002. The real dirt on rainforest fertility. Science 297: 920-923. <a href="http://www.sciencemag.org/cgi/reprint/297/5583/920.pdf">http://www.sciencemag.org/cgi/reprint/297/5583/920.pdf</a> <a href="http://www.sciencemag.org/cgi/reprint/297/5583/920.pdf">available online through UWO libraries</a>

Week of: March  $29^{th} \rightarrow Sections 002 \text{ to } 007$ April  $5^{th} \rightarrow Sections 008 \text{ to } 013$ 

## Workshop on Oral Presentation

## **Tutorial Assignments**

There are six tutorials in this course. The first tutorial is a workshop on how to give an **effective** oral presentation in this course. **Each of the remaining five tutorials (#2 - #6) deals with a specific topic** and attempts to follow the lecture material as closely as possible.

## In tutorials #2 - #6☐ Each student will do an oral presentation in **ONE** of the five tutorials. Oral Presentation is worth 12% • Maximum 10 minutes per student for the Oral Presentation. • You must first choose one of the 5 topic areas, and sign up to present that week. Attendance at your assigned section of Tutorial #1 is very important. If you miss your section of Tutorial #1, you may not get your choice of topic for presentation in Tutorials #2 - 6. Two weeks prior to your presentation (one week for tutorial #2), you must provide a copy of the article you have chosen to present to your tutorial TA for approval. You will be notified by email (UWO address only) within 48 hours as to whether your article was acceptable. If it was not, you must find another and have it approved at least one week prior to your presentation. • If you have a legitimate compelling excuse for missing the oral presentation (it must be approved by the Dean of Science), you will be rescheduled to present at another time. If it is not possible to reassign you another tutorial section of the same topic area, you will be required to choose another article to present. ☐ Each student also will be a participant in **FOUR** of the five tutorials. Participation per student during tutorial sessions 8% (2% for each of four tutorials) • To be an effective participant, read the lead article for each tutorial which is on reserve at the heavy demand desk in the Taylor Library. **Marking Scheme For Participation** showing up and saying nothing 2marks no real contribution to the discussion except for uttering "yes, no, I agree", etc. \_\_\_\_\_\_4 marks able to ask one question **plus** one comment **5 - 6 marks** 2 questions asked plus comments 7 - 8 marks being able to push the discussion along; quality

of the statements/points/opinions being made 9 - 10 marks

After all students have chosen one of the topics of Tutorials #2 - 6 (or been assigned, if they were absent for Tutorial #1), a list will be posted on the bulletin board outside Room 250 Staging Building indicating the date and topic of your presentation. You are required to attend the other 4 Tutorials and will be graded on your participation as explained above. You are required to read and be prepared to discuss the "lead article" for each of Tutorials #2 - 6 (see titles on pp. 6-7). These articles are intended to provide an introduction or overview of the subjects covered in each Tutorial and the lead articles are on reserve at the heavy demand desk in the Taylor Library.

In choosing an article to present for your Oral Presentation, look for one that provides some scientific information on the cause(s), extent, or solution(s) of environmental problems that fit within the topic area you have chosen or been assigned. Use **BIOSIS** or other reference search engines to find articles on your chosen topic. A good paper is one that provides you some objective data that you can present – if someone questions the results or their significance, you should be able to discuss the methods that were used to obtain them. Look carefully at the "Marking Scheme for Oral Presentation" (pp. 9 - 13) to help you choose a paper that is suitable for presentation. A list of suitable peer-reviewed, scientific journals and other sources for your article is provided below (pp. 14 - 17). Articles from a source not on this list may be approved at your TA's discretion, but non-peer-reviewed Internet sources are highly discouraged.

In the tutorials you will encounter two types of articles: scientific papers and review papers. Scientific papers are reports that present original research and are logically organized into seven component parts: Title, Abstract, Introduction, Materials and methods, Results, Discussion and References. Review papers are reports designed to summarize, analyze, evaluate or synthesize information in a defined subject area or work that has already been published in scientific papers. Review papers do not contain clearly evident component parts as found in scientific papers.

## MARKING SCHEME FOR ORAL PRESENTATION (100 marks)

The objective of an oral presentation is to communicate scientific findings to an audience. It is important to know who your audience is and to capture their interest with logic, effective graphics, well-organized ideas, and simplicity. For an effective oral presentation it is important to use visual aids **throughout** the talk. These visual aids can be overhead transparencies, slides or power point.

## Presentation (30 marks)

Organization of material, clarity of the presentation, understood what the study was all about, effectiveness of delivery, didn't rush, didn't mumble, didn't turn back on the audience, made eye contact with the audience and not just one person, showed enthusiasm, ended the talk gracefully and not abruptly, **didn't go over the time limit of 10 minutes**.

## TIME MANAGEMENT (10 min for the oral presentation)

- Two minutes for the 'Introduction' and 'Materials and methods (if applicable)'
- Seven minutes for 'Results' and 'Discussion'
- One minute for the Summary

Content (40 marks)

Introdu	ıcti	on (10 marks)
		Before you begin your oral presentation, state your name, the title, year, and
		journal of the article that you are presenting.
		Focus on two points in this section:
		- what was overall subject being addressed?
		- why was it important to investigate this problem?
		State the objectives of this study clearly, concentrate on concepts and eliminate details.
		If applicable, mention the organism(s) used in this study. Use scientific names.
Mataria	ola	and methods (if applicable) (10 marks)
		Be brief and to the point. Eliminate extraneous detail.  Montion only those details needed to understand what somes letter.
		Mention only those details needed to understand what comes later.
<b>.</b>		
		d Discussion (10 marks if there was an M & m; 20 marks if no M & m)
		Focus your talk on results and conclusions as you present each component of the study, discuss the purpose, rationale, and conclusions of this study.
		Remember that the results section is the major part of an oral presentation.
		There is no formal and separate 'Discussion' section in an oral presentation, instead
	_	the 'Discussion' is combined with the 'Results' section.
		Again be brief and to the point when presenting the results.
		Point out significant and interesting trends/patterns as shown by the data.
	_	Lead your audience in a logical manner from one point to the next.
		If you are planning to use overhead transparencies or power point, the Figures/Tables
		should be accurate, not cluttered, readable from the back of the room, and labeled
		fully.

## **Summary (10 marks)**

Reinforce what you want the audience to remember by summarizing the major
findings of this study at the end of your talk.

- ☐ Summary can be in point form on a transparency or power point.
- ☐ Don't discredit the author(s) of this paper or other references.
- $\Box$  End the talk on a positive note.

## Effective Use of Visual Aids (30 marks)

- ☐ Use of visual aid during the presentation. Simple, not cluttered, legible from a distance, effective colors.
- ☐ Explained the Table/Figure clearly, e.g. if presenting a Figure, went over what each axis represented, made reference to any trend/pattern, pointed out some interesting data, etc.
- □ Used transparencies or power point slides in the appropriate place during the presentation and left them on for a **sufficient period of time** so that the audience could read all the information.

#### **Effective Tables**

A Table is a list generally of numerical data which are presented in rows and columns to illustrate the focus of the study.

- should be logically organized and visually appealing
- numbered using Arabic numbers e.g. **Table 3.**
- no vertical lines
- consistency in the number of decimal places for data
- include appropriate column headings
- do not underline the word 'Table'
- the title for the table goes above the table; should be self-explanatory; in the title, do not write 'This table shows...'; do not write the word 'title'; and do not underline the title
- results of statistical analyses placed in the table are always explained below the table as a 'Note:'
- footnotes in a table (and below the table) should be designated by symbols in the following order: \*, †, ‡, §, ||, ¶, #; do not write the word 'footnote'
- not all Tables require a 'Note:' or footnote; this depends on the kind of information being presented in the Table

## **Effective Figures**

A Figure can be defined as an illustration. An illustration may be in several forms: scatter graph, line graph, bar graph, histogram, area graph, pie diagram, map, photograph, or drawing. Do not refer to the illustrations as 'Map 1', 'Histogram 1', 'Diagram 1' or anything else except "Figure".

Most graphs are drawn with two axes: y-axis (ordinate) and x-axis (abscissa). When drawing graphs do not extend the axes beyond what the graph requires. Use short index lines inside the frame of the graph or outside the frame if necessary. Every single number on the axes does not have to be referenced, instead choose appropriate increments.

Each axis should be clearly labeled with a short centered statement which includes the units of measure. Notice how to incorporate results of statistical analyses into graphs. Place several graphs into one figure to facilitate comparisons (as needed).

- should be visually appealing and uncluttered
- numbered using Arabic numbers
- the word 'Figure' is abbreviated as 'Fig. 2.'; do not underline this
- the legend goes below the Figure; should be self-explanatory; do not underline the legend; do not write the word 'legend'; in the legend, do not write 'This figure shows...'
- use standard symbols in the following order:  $\bullet$ ,  $\blacksquare$ ,  $\blacktriangle$ ,  $\blacklozenge$ . These symbols can also be used in the **non-shaded** form.
- if there is space within the frame of the graph present the key to the symbols, otherwise under certain circumstances the key can be incorporated into the legend; do not write the word 'key'

## Suggestions on how to do an Oral Presentation

In preparing a talk, you should focus on the goal of your presentation. The following points should be kept in mind at all times:

- Why was this study undertaken?
- How was this study done?
- What was learned from this study?
- Communicate the above three points clearly, convincingly, and succinctly to the audience.

## Points to consider when preparing your talk

- If you are presenting work from a published paper don't simply paraphrase the various sections of the paper. Rethink and reorganize the information.
- Be selective when choosing the appropriate information that you will be presenting. Delete extraneous detail. Streamline. Avoid reading your talk.
- Focus your talk on the results and state conclusions as you present each component of the study.
- Use overhead transparencies, slides, power point, blackboard, etc.
- At the end of your talk, summarize the major findings of the study.
- Suggest what might be done to gain more insight into the issue.
- Don't go over the allotted time.
- Practice, practice, practice. This will give you confidence, ease your nerves about giving the talk, and keep you within the allotted time period of your presentation.

## Points to consider when giving the talk

- Make sure that you know your material thoroughly. Avoid repetition.
- It has become common practice to incorporate 'fillers' such as "okay, you know, uhhh" when we speak. Attempt to avoid using these 'fillers' when giving an oral presentation.
- Don't begin your talk by saying that you are unable to present your material in the allotted time period. As a scientist you are expected to communicate well.
- DON'T RUSH. Speak slowly and clearly at about 100 words per minute.
- When using power point, transparencies or slides, point to the screen; unfamiliar terms should be written on a prepared transparency or on a slide in power point. Your goal is to communicate, and not to impress or confuse the audience.
- Don't mumble, make eye contact with the audience, and don't turn your back on the audience.
- Show your enthusiasm about the material that you are presenting.
- Don't automatically refer to the author of a paper as 'he' since it might be a 'she' or 'they'.
- Don't end your talk abruptly. **Prepare your audience for the end**, and at the end of your talk, say something like "Thank you" or "I will be pleased to answer questions from the audience".
- In answering questions, paraphrase the question first before responding, don't answer a question if you don't understand it, politely ask for clarification, and if you don't know the answer to a question, just say 'I don't know'.

## Listener's responsibility

As a member of the audience your responsibility is to:

- Be quiet, listen closely, take notes.
- Ask questions about:
  - something you thought was particularly interesting
  - clarification of various statements/points that were made
- Applaud the speaker.

E; the environmental magazine

[electronic resource]

## Below is a list of suggested potential sources for articles. Remember to search for articles on your topic in BIOSIS first then use this list as a guide to appropriate sources.

Journal name	Call Number

Adsorption in the water environment and treatment TD365.P76 v.35 no.7 Advances in ecological research OH540.A23 Adverse effects of environmental chemicals and.... W1.AD95 Agriculture, ecosystems & environment S589.7.A35 AIHAJ: a journal for the science of occupational.... W1.AI698 Air and water pollution TD883.A1A57 Ambio TD172.A52 The American midland naturalist QH1.A35 The American naturalist QH1.A5 Annual review of ecology and systematics QH540.A53 Annual review of energy and the environment WWW access Applied and environmental microbiology W1.AP498 Applied occupational and environmental hygiene WWW access Appropriate waste management technologies for dev.... TD365.P76 v.33 no.8 Aquaculture SH1.A626 Aquatic toxicology OH545.W3A66 Archives of environmental health W1.AR455 Archives of environmental contamination and toxic.... QH545.P4A7 Atmospheric environment TD881.A85 Biogeochemistry OH344.B57 Biological conservation S900.B5 Biological reviews of the Cambridge Philosophical Society OH1.C114 Bioscience QH1.A27 OH1.B54 Biotropica Bird trends QL671.B573 Building and environment TH1.B84 Bulletin of environmental contamination and toxic.... W1.BU771C Canadian field-naturalist QH1.C12 Canadian Geographic G1.C2 Chemical process industries and environmental man TD365.P76 v.39 no.1 Chemosphere TD180.A1C44 Chemosphere, global change science GE149.C44 Conservation biology QH75.A1C665 Conservation ecology WWW access CRC critical reviews in environmental control TD172.C5 Critical reviews in environmental science and tec.... TD172.C5 Current advances in ecological & environmental sc.... Z5322.E2C877

Journal name	Call Number
Earth Island Journal	[electronic resource]
Ecodecision Ecodecision	HC79.E5E23
Ecological applications	QH540.E273
Ecological economics	HC79.E5E25
Ecological modelling	QH541.15.M3E366
Ecological monographs	QH540.E28
Ecology Ecology	QH540.E28 QH540.E3
Ecology of disease	W1.EC916M
Ecology law quarterly [Law]	K5.C554
Ecology letters[electronic resource]	WWW access
Ecologist, The [electronic resource]	QH540.E295
Ecology USA	TD169.E364
Écoscience	QH540.E335
	W1.EC939
Ecosystem health : official journal of the Internet Ecotoxicology [electronic resource]	WWW access
Ecotoxicology and environmental safety	W1.EC94
Environment	UF767.S33
Environment Canada: selected publications & websites	CA1 EPA211 E56
Environment catalogue/United nations publications	UN2 A9 E51
Environment, development & sustainability [electronic resource]	WWW access
The Environmentalist	S900.E593
Enviro	SW1 EP A15
Environmental and experimental botany	QK1.R33
Environment and behavior	HM206.E5
Environmental & engineering geoscience	TA703.E58
Environmental biology of fishes	QL614.A1E585
Environmental conservation	S900.E585
	SB599.E44
Environmental entomology Environmental ethics	HM206.E552
Environmental geology Environmental health	QE1.E585 W1.EN981T
Environment international	TD172.E523
Environmental letters	TD172.E525 TD172.E56
	TD172.E50 TD172.E53
The Environment monthly	
Environmental microbiology	WWW access
Environmental pollution	QP82.2.P6E55
Environmental progress	TD172.E657
Environmental pollution	QP82.2.P6E5532
Environmental research	W1.EN985J
Environmental management [Weldon, Internet]	S900.E587
Environmental reviews	QH540.E58
Environmental science & technology	TD180.A1P58

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Journal name	Call Number
Environmental toxicology and chemistry	QD1.E565
Environmental toxicology	RA1190.T64
Evolutionary ecology	QH540.E96
Evolutionary ecology research	QH540.E975
Functional ecology	QH540.F85
Geochemistry: exploration, environment, analysis	QE514.G46
Global change biology	WWW access
Journal of environmental quality	S1.J78
Journal of environmental engineering	TD1.A54
The Journal of environmental sciences	TA1.J637
Journal of environmental systems	TA170.E5
Journal of environmental management	TD172.J67
Journal of environmental economics and management	HC79.P55J68
Journal of environmental education	S946.J67
Journal of environmental planning and management	HT166.A1P4
Journal of hazardous materials	T55.3.H3J68
Journal of agricultural, biological, and environm	S566.55.J68
The journal of environment & development	WWW access
Journal of environmental monitoring : JEM	WWW access
Journal of Environmental Health	[electronic resource]
Journal of chemical ecology	QD1.J926
The Journal of applied ecology	QH540.J78
Journal of Ecology	QH540.J86
Journal of toxicology and environmental health	W1.JO9382
Journal of occupational and environmental medicine	W1.JO8015
Marine environmental research	TD420.A1M37
Molecular ecology	QH540.M66
Natural history	QH1.N13
Nature	Q1.N2
The New Ecologist	QH540.E2952
The New Scientist	Q1.N52
Oecologia	QH540.O43
Oikos	QH540.O53
Plant ecology	QK901.A1V4
Population & development review [Weldon]	HB848.P62
Population and environment	HB848.J68
Protection ecology	SB950.A1P768
Public health and the environment	W1.PU390
Researches on population ecology	QH540.R48
Resource and environmental biotechnology	TD192.5.R48
Restoration ecology	QH541.15.R45R48
Science	Q1.S35
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Journal name	Call Number
The Science of the total environment	QP82.S25
Scientific American	T1.S5
Stanford environmental law journal	K23.T6537
State of the World [Weldon]	HC59.S7333
Trends in Ecology and Evolution (TREE)	QH540.T74
Urban ecology [Weldon]	QH540.4723
Water and environmental management : journal of t	TD419.J68
Water, air, and soil pollution	TD172.W36
Water environment & technology	TD511.W384
Water environment research	TD511.S42
Water & environment manager	TD419.W36
Water & pollution control	TA1.W38
Water pollution control	TD420.A1W36
World bank environmental projects	UN9 MG65 W51
World ecology report [Weldon]	QH540.W67