

# **The Global Environment and Human Health**

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**An SSC for Second Year Medical Students, Bristol University  
October to December 2008**

## **Introduction**

In recent years, environmental issues have attracted increasing media interest, and the effect of human activity on the global ecosystem has come under scrutiny. Mainstream opinion is beginning to recognise the impact of environmental change on human health, with growing concern about the possibility of catastrophic change. The GMC lists the duties of a doctor as including to “*protect and promote the health of patients and the public*”: this places environmental threats to health firmly within the medical domain. Weaving our way between health scare and reasonable concern, this SSC offers you an opportunity to explore the links between environmental issues and human health. We will also look at a variety of creative responses to environmental concerns and the barriers that might stand in the way of their enactment. This lends itself to a medical approach: diagnosis, prognosis and treatment.

## **Aims**

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- 1) To raise awareness of global environmental changes resulting from human activity
- 2) To investigate the links between human health and this changing environmental context
- 3) To discover creative ways in which medics can respond to this global challenge

## **Course Philosophy**

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In signing up for this SSC we are assuming that you are interested in the global environment, ready to take responsibility for your learning, on for the challenges of learning and working in a group and ready to ask questions, wrangle with paradoxes and have fun.

## **Learning Methods**

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You will learn on this SSC through a combination of interactive lectures, group discussion and debate, private reading of key articles, direct environmental action, research and presentation.

## **Timings and Topics**

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The course will run on Tuesday and Friday afternoons between October 7th and December 12<sup>th</sup>, with one week off for clinical attachments. Of these 16 half days approximately 10 will involve group sessions. The others are for private study. Most sessions run from 2-5pm but we will try to keep things focused and will sometimes be over by 4pm.

## Before the Course Starts

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There are three things we would like you to do before the course starts

1. Read the 35 page pamphlet [www.who.int/world-health-day/toolkit/report\\_web.pdf](http://www.who.int/world-health-day/toolkit/report_web.pdf)  
This is an important intro to the links bwn GH and, in particular, climate change. Please read this and *make a mind-map of your reading*. It is only 25 pages with lots of pictures. The pdf is also on BB under “Stuff to Look at Before Course Start”.
2. Calculate your personal carbon footprint (details on how to do this below).
3. Look out for, read and bring in, one item from the printed media (or web) on threats linked to environmental change
4. Have read and written and submitted your book review by 10th October (details below).

### Carbon Footprinting.

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This is a crude but interesting way to calculate your contribution to Carbon Dioxide emissions. Before you start you should do things such as work out how much you spend on gas and electricity per annum. Do your best estimate – given shared bills and living at home etc. Also work out how many light bulbs you have in your house and how many of these are energy efficient. You will also need to check the efficiency ratings of your various appliances. Also how far you fly and drive each year. Once you have that sort of information please go to:

<http://actonco2.direct.gov.uk/index.html> which is a reasonably straightforward calculator

Then please seek out (at least) another one somewhere on the web (make sure it is one that does travel and domestic energy use). Here are some examples:

1. [www.carbonrationing.org.uk/file/files/crags-carbon-footprinting-worksheet](http://www.carbonrationing.org.uk/file/files/crags-carbon-footprinting-worksheet)
2. [www.thecarbonaccount.com](http://www.thecarbonaccount.com)
3. [www.google.co.uk/carbonfootprint](http://www.google.co.uk/carbonfootprint)

Please then go to the “Carbon Calculations” section of the GEHH BB site and enter your two CFs into the table with details of the source.

Please also add some critical reflections on the merits of the CF methodologies you have encountered and put in some ideas you have for reducing the CF. This will grow with the course and there will be a prize for the most ingenious suggestion.

## Group Sessions with Topics (for required and additional reading see below)

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Monday Oct 6th

### **Session 1: Earth Consultation - exploring global diagnosis, prognosis and treatment.**

This session is designed to explore why we have each chosen this SSC, to introduce some ideas of systems thinking that underpin it and to start to identify the key problems and opportunities with human health and global environment. We will also debate plans for the “Direct Action” project, look at the pre-reading and review our carbon footprints.

**Facilitator:** Dr Trevor Thompson

**Venue:** Cotham House

Tuesday Oct 21st

### **Session 2: Climate Change – Mapping the Mayhem.**

Basic factual survey of CC and the debate that surrounds it. To include the film *An Inconvenient Truth* a film by Al Gore or other film.

**Facilitator:** Dr Trevor Thompson

**Venue:** AIMS Seminar Room 1.

**Paxman Panel:** *Rough Guide to Climate Change* by Robert Henson

Also (4.20pm) an “Introduction to EndNote Web” by Patricia Rogers.

Friday Oct 24<sup>th</sup>

### **Session 3: Climate Change – Scientific Sense and Nonsense.**

An evidence-based approach to climate change drawing on primary research (as opposed to pre-digested summaries). For this session you will read and critically appraise a piece of original CC research and will then be taken through it by a senior UoB researcher.

**Guest Speaker:** Professor Paul Valdes, Professor of Physical Geography (or member of his team).

**Venue:** Cotham House

**Paxman Panel:** *An Appeal to Reason: A Cool Look at Global Warming* by Nigel Lawson

Friday Oct 31st

**Session 4: Oops – I think We Just Peaked! Peak Oil Pandemonium.**

Though the future of the climate is hard to predict there is one thing that is certain – human ability to extract oil from the earth’s crust is going to start to fall and go on falling within the next few decades. Society is ill-prepared for this change from an oil-based economy. In this lecture the evidence for “peak oil” will be illustrated and expert accounts reviewed.

**Facilitator:** Dr Trevor Thompson

**Venue:** Cotham House

**Paxman Panel:** *The Party's Over: Oil, War and the Fate of Industrial Societies* by Richard Heinberg

Tuesday 4<sup>th</sup> Nov

**Session 5: Food for Thought – the human and environmental impact of food production, transportation and retail.**

Food is a fundamental component of human health and disease. In this session we will draw on the expertise of the Soil Association (which is based in Bristol) to review the health and environmental impacts of how food is produced, transported and sold.

**Guest Speaker:** Emma Hockridge, Policy Officer, Soil Association.

**Venue:** Wrington Greens, Organic Farm, Nr Bristol Airport. As many as possible to travel by bike – one hour up hill! ([www.wringtongreens.co.uk](http://www.wringtongreens.co.uk)).

**Paxman Panel:** *Diet for a Dead Planet: Big Business and the Coming Food Crisis* by Christopher D. Cook

Tuesday 11<sup>th</sup> Nov

**Session 6: Farmer’s Market!** (if as a group we elect to do this and not some other project).

This is one possible Direct Action project.....it is up to the group to decide how it would like to make its mark.

Friday 14<sup>th</sup> Nov

**Session 7: Watershed! Supply, demand and damage to 21<sup>st</sup> Century Water Systems.**

Since 1950, the world’s population has doubled, but water consumption has increased six-fold. Access to fresh water is essential for life, yet with such increased consumption, and climate change leading to an increase in droughts, an increasing proportion of the world’s population suffer from water stress. We will look at what happens when there is too much water

(floods), too little water (droughts) or contamination of water (with pathogens or chemicals).

And

**Writing for a Change.** How to get published (including in sBMJ)

**Facilitator:** Dr Chris Johnstone (Watershed!) and Anna Ellis (sBMJ)

**Venue:** Main Teaching Room, Cotham House

**Paxman Panel:** *When the Rivers Run Dry: Water--The Defining Crisis of the Twenty-first Century* by Fred Pearce. Eden Books (2007)

xxxxxxx 17<sup>th</sup> November to 22<sup>nd</sup> November Clinical Week xxxxxxxx

Tuesday Nov 25<sup>th</sup>

**Session 8: Psychology of Environmental Change (and inertia).**

When looking at environmental threats to health, a question that often comes up is “*If things are really this bad, why isn’t more being done to deal with these problems?*” To answer this question we need to look at the psychology of behaviour change and at how responses to health-related problems can get blocked. This session looks broadly at the dynamics of health-related behaviour change and draws on insights and strategies used in the addictions field. We will look at what helps people move from avoidance to engagement when facing threats to health.

**Facilitator:** Dr Chris Johnstone

**Venue:** 1.1a/b Stage 3

**Paxman Panel:** *The Tipping Point* by Malcolm Gladwell

Friday Nov 28<sup>th</sup>

**Session 9: Greening of the NHS.**

In this session we are going to imagine what the NHS might look like in a sustainable society, reflect on the current environmental impacts of the NHS, explore the concept of “Transition” and look the sorts of practical things individual doctors have done to improve the situation. It is a pleasant coincidence that low carbon economies are also typically healthier.

**Venue:** Cotham House

**Facilitator:** Dr Angela Raffle. Consultant in Public Health Medicine. Bristol PCT.

**Paxman Panel:** *The Transition Handbook: From Oil Dependency to Local Resilience* by Rob Hopkins

Tuesday Dec 2<sup>nd</sup>

### **Session 10: Constructive Action and Energy Descent – the Transition City Movement**

A goal of this course is to strike a balance between focussing on problems and identifying constructive responses to them. In this session we'll be looking at sustainability initiatives at home and abroad, and explore the potential role of doctors in addressing environmental threats to public health. We will be identifying examples of positive environmental change, seeking to learn lessons from success stories, and identifying ways we can emulate them.

**Facilitator: Trevor Thompson**

**Venue: Cotham House**

Tuesday Dec 9<sup>th</sup>

**Session 11: Student Presentations** - Large meeting room, Cotham House

#### **How topics are covered**

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Prior to each learning session you will be provided with one or two (reasonably short) articles on the topic of the week and/or a video to watch. You are required to read/watch these carefully and be prepared to discuss content in the group session. Sessions normally include a 40-60 minute interactive lecture by one of the core teaching team or a guest lecturer. This will be followed by group activities such as a debate.

#### **Required and Extension Reading**

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##### **Session 1: Earth Consultation - exploring global diagnosis, prognosis and treatment**

*Required reading:*

Reading the summary and first chapter of the WHO report *Ecosystems and Human Wellbeing: Health Synthesis*. These can be downloaded at:

<http://www.who.int/globalchange/ecosystems/ecosys05sum.pdf> (summary)

<http://www.who.int/globalchange/ecosystems/ecosysq1.pdf> (chapter one).

*Additional reading/viewing:*

<http://www.protectingourhealth.org/corethemes/links/2004-0203spreadsheet.htm#spreadsheet>  
Database linking 200 diseases to environmental factors.

<http://chge.med.harvard.edu/programs/education/index.html>

Harvard Medical School's Centre for Health and the Global Environment have many of their lectures available on-line. An excellent and inspiring source.

## **Session 2: Climate Change – Mapping the Mayhem**

For this session you need to be aware of some of the basic facts about the CC situation. These can best be gleaned from a reading of the The Intergovernmental Panel on Climate Change (IPCC) reports. The latest was published in November 2007 and is known as AR4. 2500 scientific reviewers and 800 authors spent 6 years contributing to this assessment. A summary of AR4 for policy makers should be downloaded at and is palatable:

[http://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4\\_syr\\_spm.pdf](http://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr_spm.pdf)

In this session you will be looking at the film Inconvenient Truth by Al Gore. As you may know, a school governor disputed the science of this film and the government produced these guidance notes for the film. Before we watch this film you must read and be aware of the nine disputed points @:

[www.guardian.co.uk/environment/2007/oct/11/climatechange?gusrc=rss&feed=networkfront](http://www.guardian.co.uk/environment/2007/oct/11/climatechange?gusrc=rss&feed=networkfront)

*Additional reading/viewing:*

Frequently Asked Questions about the scientific understanding about climate change published by IPCC. The quality of the answers is high. Recommended.

[http://ipcc-wg1.ucar.edu/wg1/Report/AR4WG1\\_Print\\_FAQs.pdf](http://ipcc-wg1.ucar.edu/wg1/Report/AR4WG1_Print_FAQs.pdf)

The guidance notes for teachers for the Al Gore film can be viewed at

[http://www.teachernet.gov.uk/sustainableschools/library/resources/library\\_resource\\_detail.cfm?id=140](http://www.teachernet.gov.uk/sustainableschools/library/resources/library_resource_detail.cfm?id=140)

## **Session 3: Climate Change – Scientific Sense and Nonsense.**

For this session you must read the following two scientific papers (both on GEHH Blackboard):

Mann, M.E. and Bradley, R.S. Northern Hemisphere Temperatures During the Past Millennium: Inferences, Uncertainties and Limitations. Geophysical Research Letters, Vol.26. No 6, Pages 759-762, March 15, 1999.

Mann, M.E. et al. Proxy-based reconstructions of hemispheric and global surface temperature variations over the past two millennia. Proceedings of the National Academy of Sciences Vol. 105, No 36, 13252-13257.

## Session 4: Peak Oil

### *Required reading:*

Colin Campbell. Understanding Peak Oil. Permaculture Magazine. No 46. Winter 2005. (printed version will be supplied)

Jeremy Leggett. Peak Oil: the twilight zone. <http://www.countercurrents.org/po-leggett250405.htm>

### *Recommended reading:*

Party's Over: Oil, War and the Fate of Industrial Societies by Richard Heinberg

Thom Hartmann. The Last Hours of Ancient Sunshine. Hodder and Stoughton 1999.

John Strahan. The Last Oil Shock: A Survival Guide to the Imminent Extinction of Petroleum Man. John Murry 2007.

## Session 5: Thought for Food

Because this session is being led by a Policy Officer from the Soil Association we are going to use three short pieces from the SA to prepare for this. Go to the pages below and then look for the pdf download embedded:

This is on the link between agriculture and oil-based economies:

[www.soilassociation.org/web/sa/saweb.nsf/GetInvolved/soilnotoil.html](http://www.soilassociation.org/web/sa/saweb.nsf/GetInvolved/soilnotoil.html)

This link contains a link to the current SA position paper on GM foods (scroll down for GM Health Effects Report [pdf 169KB])

[www.soilassociation.org/web/sa/saweb.nsf/GetInvolved/geneng.html](http://www.soilassociation.org/web/sa/saweb.nsf/GetInvolved/geneng.html)

This is a very interesting project on food the use of local foods in the Royal Cornwall hospital (again scroll down to read the report)

<http://www.soilassociation.org/Web/SA/SAWeb.nsf/5f473da5a76ca15b80256b4400428a12/303549f881a7a217802572d50056b270!OpenDocument>

Please view these three video clips (all short) and make notes ready to discuss the question “what are the links between food and human health and environmental sustainability”

Vandana Shiva <http://www.bigpicture.tv/videos/watch/d9d4f495e>

Helena Norberg Hodge <http://www.bigpicture.tv/videos/watch/d67d8ab4f> (sound very quiet)

Jerry Mander <http://www.bigpicture.tv/videos/watch/2a38a4a93>

### *Recommended Reading:*

*Diet for a Dead Planet: Big Business and the Coming Food Crisis* by Christopher D. Cook

## Session 6: The Farmer's Market

Read what the GEHH 2007 students wrote – available under “Direct Action Project” on the GEHH BlackBoard.

## Session 7: Water

*Required reading:*

a) To read pages 5 - 25 in WHO report "Safer water, better health", downloadable from [http://www.who.int/water\\_sanitation\\_health/publications/safer\\_water/en/index.html](http://www.who.int/water_sanitation_health/publications/safer_water/en/index.html)

This gives an overview of the relationship between water, health and illness in a global context

b) An interview with Fred Pearce at <http://calitreview.com/77>

This gives an overview of some of the important changes in water availability and the impact this may have in future decades.

[http://www.who.int/water\\_sanitation\\_health/publications/facts2004/en/index.html](http://www.who.int/water_sanitation_health/publications/facts2004/en/index.html)

World Health Organisation web-page on water, sanitation and hygiene links to health

[www.asph.org/UserFiles/EOH05Regens.ppt](http://www.asph.org/UserFiles/EOH05Regens.ppt)

PowerPoint presentation about health impacts of water scarcity

*Further reading:*

[http://www.who.int/water\\_sanitation\\_health/diseases/burden/en/index.html](http://www.who.int/water_sanitation_health/diseases/burden/en/index.html)

*Water: When the Rivers Run Dry: Water--The Defining Crisis of the Twenty-first Century* by Fred Pearce

## Session 8: Psychology of Environmental Change (and inertia)

*Required reading*

[http://www.permaculture-magazine.co.uk/articles/articles\\_49.html](http://www.permaculture-magazine.co.uk/articles/articles_49.html)

Article by Chris Johnstone on moving from overwhelm to engagement.

Ch6. Understanding the Psychology of Change. *The Transition Handbook: From Oil Dependency to Local Resilience* by Rob Hopkins; Green Books; 1st edition (6 Mar 2008)  
This is on GEHH BlackBoard “Course Documents”

Understanding denial – an article by Chris Johnstone  
Will be emailed to you before the session

*Recommended reading:*

*The Tipping Point* by Malcolm Gladwell. Abacus Books, 2001. Best selling and thought provoking book about the social dynamics of change.

## Session 9: The Greening of the NHS

### *Required reading*

The required reading for this session is a brief 6page document from the Sustainable Development Commission entitled “The NHS and Climate Change” at [www.sd-commission.org.uk/publications/downloads/HealthyFutures7.pdf](http://www.sd-commission.org.uk/publications/downloads/HealthyFutures7.pdf)

When you read this start to think of how the NHS might look like if it were sustainable. Please also view slide show at [www.sd-commission.org.uk/publications.php?id=750](http://www.sd-commission.org.uk/publications.php?id=750) and also this one which looks more at the local environment but which is interesting <http://www.sd-commission.org.uk/publications.php?id=712>

### *Further reading:*

The NHS Sustainable Development Unit’s Draft NHS Carbon Reduction Strategy is at [www.sdu.nhs.uk/downloads/draft\\_nhs\\_carbon\\_reduction\\_strategy.pdf](http://www.sdu.nhs.uk/downloads/draft_nhs_carbon_reduction_strategy.pdf)

## Session 10 : Constructive Action and Energy Descent

### *Required viewing:*

<http://transitionculture.org/2007/09/14/peak-oil-transition-towns-and-resilience-building-my-talk-to-the-ifg-teach-in/#more-761>. Tripartite talk on Transition by Rob Hopkins – worth it.

## GEHH Master Wikis

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The full title of this is “Key Information in the Physiology, Pathology and Therapeutics of the Global Environment.” Working in four separate groups (Lovelock, Gore, Hubbert and Keeling) you will use this Wiki to record key knowledge in this vast field. We can read books full of interesting information but note-taking helps us to remember it. This Wiki is an aid to our collective memory. When you read (in your book review or elsewhere) really interesting stuff record it here. The Group then pulls this together and makes it a readable document. The master WIKI should not take much additional time as it is only a repository for knowledge. It will require some team-working too. The Wiki will be presented/shown to the group at the final session. The Wikis must be finished by **Wednesday 3<sup>rd</sup> December 2008**.

## Direct Action Project

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This project is about doing something practical in relation the Global Environment. Here are some possibilities: a)organise a “Green Ball” b) organise a Farmer’s Market c)pick up all the litter in an area of Bristol d) do a campaign amongst student friends

We have experience already with the Farmer’s Market and we know that can work – but there is a hell of a lot to do to make it *really* work. We will discuss this in session one.

## Assessment

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We are trying some completely new (to Bristol) assessment processes. For one thing, we are planning to get you involved in the assessment process. We are doing this in part because I (TT) am running this course mainly on my own and there aren't enough hours in the day for me to do all the marking. Whether these innovations actually save time remains to be seen. Also, we feel it is very useful to learn the skills of fair assessment. There are four elements to your assessment (each contributing a percentage toward total mark).

- a) ~500 word book review (15%)
- b) Team-working – including Wiki (20%)
- c) submission of a “special project” preferably in format that would work for sBMJ (45%)
- d) meaningful musings (20%)

Because this is quite a complex assessment process we have to demand that assessments are handed in on time. Assessments that do not come in on time (where no extension has been granted) will automatically receive no marks. You have been warned!

### a)Book Review

We list seven titles below. You should go onto the GEHH Blackboard site and indicate your choice on the “Book Review Wiki”. Up to four people can review each book. We do it this way to ensure a good spread of books for our “Paxman Panels” (qv). The book review is a minor art form in itself. Unlike with fiction, you don't have to worry about “spoiling” the plot. Remember this is short – 500 words only! You are asked to submit your review via Blackboard before noon on **Friday 10<sup>th</sup> October 2008**. Please make sure your name and the title of the book are in the name of the file you submit. To avoid temptation (especially with reviews) your work will be subject to plagiarism checking. The book review will be judged by the following criteria – but *don't* tackle these separately in the review – your assessors will pick them out from what you write. As you see the evaluation is the most important.

Read and possibly re-read the book, pen in hand, to record your impressions. It is worth looking up advice on “how to write a review” on tinternet and it is perfectly legitimate to look up other reviews of the book in framing your opinions.

The book reviews will be shared in the group time using the GEHH-patented “Paxman Panel”. In this all the reviewers of a particular book are “interviewed” by one of your colleagues in a robust fashion to explain the book and your reactions to it and field questions from the floor.

Performance in the Paxman Panel does not contribute to the book review mark.

The assessment of the submitted work will work as follows:

- a) Stephanie receives the work via BlackBoard and runs plagiarism check etc. Deadline for submission **Friday 10<sup>th</sup> October 2008**
- b) Work is sent to two other students for assessment – at least one of them will not have submitted a review on the book. The reviews are sent anonymously. Work will have been sent out no later than **Friday 17<sup>th</sup> October 2008**
- c) Students assess the (two) book reviews according the following criteria

- I. **Style and structure of the review:** a punchy, engaging, popular but not entirely informal style. No use of slang for instance. A logical flow of ideas and appropriate use of paragraphs and excellent grammar and spelling. (20%)
- II. **Description of the book:** on reading the review the reader needs to have a sense of the underlying purpose of the book (its thesis) and the content used to achieve this purpose. May describe chapter structure. (30%)
- III. **Evaluation of book:** here there is more scope for personal point of view than in formal academic writing – but they still need to give evidence (from the text) for how they think it works as an argument and the usefulness of its contribution. Extra marks are awarded for citation of other authors, original insight and robustness of argument. (40%)
- IV. **Take home message:** we are looking for a pithy conclusion to the review that might summarise the book and its evaluation (10%)

80%+	<b>Outstanding.</b> Accomplished style, pithy description, trenchant and highly original evaluation, measured and yet committed conclusions. A joy to read. Professional feel.
70-80%	<b>Excellent.</b> Good style, engaging description, firmly reasoned evaluation, some sense of originality, memorable conclusion. Enjoyable to read. Professional feel.
60-70%	<b>Very Good.</b> Evidence of style. Accurate description. Evidence of thought in evaluation. A good read. More of a studenty feel overall.
50-60%	<b>A decent attempt.</b> Style OK but awkwardly worded in places. Clear attempt to describe. Some argument but perhaps rather slanted. Overall of a standard unlikely to be seen in a published review but still perfectly readable.
<50%	<b>Needs attention.</b> Style poor. Description patchy. Evaluation emotive or well off track. No clear message. Overall of a standard below what might be expected of a Bristol student. Not engaging to read.

- d) Students send an email to Stephanie with a score out of 100% (as above) and some feedback to the reviewer (up to 150 words) for each of two reviews. Feedback should be courteous, specific and constructive (“I would have been interested to hear more from

you on how the book was structured and whether fitted its purpose” etc). This must be email by **Friday 24<sup>th</sup> October 2008** (yes – that is one week only)

- e) Stephanie puts all scores into a spreadsheet + comments and sends to TT who moderates for anomalies. Where there is a more than 10% difference between the scores TT remarks. Otherwise an arithmetic mean will be used.
- f) Stephanie forwards marks and comments to the reviewers by **Friday 31<sup>st</sup> October 2008**. Appeals are not encouraged but will, of course, be considered.
- g) Reviews will be posted on BB for all to view in due course.

## **b) Engagement, Team-working and Master Wikis**

You are expected to attend all sessions. If you can't attend please let Stephanie know by phone or email in advance with a brief explanation. For each session there will be (brief) reading material to cover and we want to hear evidence of your having read it. We will be looking to see that you engage actively with the different aspects of group life.

Because 24 can be too big a group size in which to learn about group dynamics we have divided the main group down into four smaller groups of six (Lovelock, Gore, Hubbert and Keeling). In these groups you will work on some aspects of your direct action project and on the GEHH Wiki and a few other things.

The 20% for this will be formed from a discretionary 6% from TT for engagement, 7% from an group's assessment of individual group engagement (this has never been done before and I am currently being shown how to do it from a colleague, Prof Bill Torbert of Boston College Business School) and 7% (fixed for each group) as assessment of the Wikis.

## **c) Special Project**

An SSC wouldn't be an SSC unless there was an opportunity for you to pursue your personal interests in the field. We want this course to be something that makes a difference in the world – not just about academic learning for its own sake. So instead of asking you to produce an essay or presentation for limited circulation, we want you to do something that might be read by thousands. Working *in pairs* we want you to write an article worthy of submission to sBMJ (or other journal or magazine). The process of preparing for publication brings in many of the skills we seek to see developed in the SSC programme such as literature review and the use of referencing software. It will also be something nice for your SSC portfolio.

Over the course of the course we want you to keep your eyes and ears open for an issue that grabs your passionate interest and which you would like to communicate with others. The only condition is that it is something that will link the global environment and human health – either very directly or in a more general sense. Here are some examples:

1. Carbon-footprinting – how accurate and useful are the concept and the calculators?
2. What are the physiological impacts of extreme temperature?
3. To what extent does the earth have a physiology?
4. Ozone – mantle of protection and killer gas.
5. Malaria and global warming
6. The role of community in mitigating climate change
7. How could NHS be “greened”?
8. The impact on loss of biodiversity on sourcing of medicines
9. The effect of climate change on the city of Lima

You should find someone from your Wiki group with whom to work on the piece. On around Friday 14<sup>th</sup> November we will have a session in which we will talk about the Special Projects (once the Direct Action Project is out of the way). As soon as you have a title for the project you need to enter it onto the Special Projects Wiki. You need to do this no later than **Tuesday 25<sup>th</sup> November**.

On **Tuesday 9<sup>th</sup> of December** we will split into two groups and each pair will informally present their work over 10m to the other parties (five minute presentation followed by five minutes of questions and feedback – not long!). The (four) authors of two papers will get together for some further discussion (30m) and feedback. The final works should be submitted to Blackboard by **noon on Friday 12 December 2008**. At the end of the SP you should include a short (and mutually agreed) statement about what each of you contributed to the work. The Special Project will be assessed by two independent markers who are doctors. The criteria of assessment will be as follows:

- i. **Structure:** formatting (page lay-out etc), use of tables, figs and graphics. Accurate use of referencing software. Matching of requirements of target journal. (30%)
- ii. **Engaging style:** evidence of having thought about would-be readership. Style that is engaging, enjoyable to read but also clearly academic rather than populist. Balanced. Measured, rather than emotive. (30%)
- iii. **Central Argument:** a clearly defined purpose to the article containing well reasoned argument with good empirical validations where possible. (40%)

You will have the name of your marker in advance – we are looking into the possibility of them giving you some formative feedback – ie feedback before you submit on 12 December. You will get written feedback on your Special Project by the end of January 2009.

**Use of EndNote.** I would like everyone on the SSC to make learning how to use the (free) endnote biographical management software. Please use this to create your references for your Special Project. Details of how to download and use this software will be provided by specialist librarian Patricia Rogers on Tuesday 24<sup>th</sup> October.

#### **d) Meaningful Musings**

On the first day of the course you will be provided with a musing book in which to record musings on your experience of the course. This musing is a really good way of consolidating your learning. We will try and give musing-time throughout the course so please pack your musing book

Toward the end of the course, and based very much upon what you have recorded in your musing book, we ask you to submit a reflective account via BlackBoard. This should be submitted by **noon on 12<sup>th</sup> December 2008**. We would like you to write at least 750 words (in total) under the following headings.

- a) Three things I encountered on GEHH which really hit home.....
- b) My experience of working with others during the course was.....
- c) Reflections on the different learning/teaching styles used.....
- d) How I would improve this SSC for future generations of students.....
- e) The relevance of the global dimension to medical education.....
- e) My overall impressions of being part of this SSC.....

Here we are looking for authentic, well articulated, reflection. You could do very well in this SSC despite, for instance, deciding it is not relevant to medics – you just have to explain your views in a clear and grounded fashion. Similarly if you appreciate something – we expect to hear *why!* We value your comments very much – they have already led to numerous improvements.

#### **About the Tutor**

**Dr Trevor Thompson** is a father concerned about the state of the world into which his four children are growing up but inspired also by the ability of humans to respond creatively to the predicaments they encounter. He loves to hack through the hype and interpret things through a combination of head and heart approaches. He is struck by how often things that appear good for the planet also appear good people. Email: [trevor.thompson@bristol.ac.uk](mailto:trevor.thompson@bristol.ac.uk)

#### **About Our Guests**

**Prof. Paul Valdes** is Professor of Physical Geography in the School of Geographical Sciences. He leads the Bristol Initiative for the Dynamic Global Environment (BRIDGE), is research director for Physical Geography, and directs the University of Bristol Global Change Research theme (which brings together more than 40 academics working on global change issues, in departments ranging from politics to archaeology). Previously, he was a Professor of Earth System Science (one of the first in the UK) at Reading University. He is also non-executive director of Greenstone Carbon Management. In 2007, he won a Royal Society Wolfson Merit Award for his work on climate change.

**Emma Hockridge** works at the Soil Association as a campaigner within the policy department, where she works on a range of issues linked to sustainable food and farming. Prior to this, Emma was a project co-ordinator for Sustain: the alliance for better food and farming, where her work focused on the 'Good Food on the Public Plate' project, which aimed to increase the amount of local, organic and healthy food being served in hospitals, schools and care homes. She undertook a Masters in Sustainable Development Advocacy, which focused on rural land use. She previously worked for Defra, and carried out conservation work in the Peruvian jungle after completing her degree in Geography and Environmental Studies. In 2006 she was awarded a Nuffield Farming Scholarship. Emma's family have been farming in Devon for over four generations.

**Dr Chris Johnstone** is a specialist in the psychology of change who, with Trevor Thompson, set up the GEHH SCC. Previously a GP, he works as an addictions specialist in the NHS, trains health professionals in motivational interviewing and co-ordinates the behaviour change teaching for 4<sup>th</sup> year medical students. His book, Find Your Power, is one of the few self-help books to address both personal and planetary concerns, and the email newsletter he edits, The Great Turning Times, is read by thousands of people throughout the world. His particular interest is in how addressing global issues can make our lives more exciting, fulfilling and enjoyable. He is also a musician, playing hammered dulcimer, harmonica and percussion. He has a website at [www.chrisjohnstone.info](http://www.chrisjohnstone.info)

**Dr Angela Raffle** is a Consultant in Public Health based in Bristol working for five Primary Care Trusts (PCTs). She is an Honorary Senior Lecturer with the Department of Social Medicine at the University of Bristol. Dr Raffle also works as a Consultant to the National Screening Programmes, under the Directorship of Sir Muir Gray. Her work for the PCTs involves providing programme support for all aspects of work relating to cancer and palliative care, and she is Public Health Lead for the local cervical and breast screening programmes. She also heads up the tobacco control work for Bristol, and is co-chair of the Smoke-free Bristol campaign for the Bristol Partnership.

**Sarah Pugh** was until recently the lead person at Transition Bristol. She now works in an educational role with the same organisation.

**About our Special Project Assessors** (only one of four gets a mention here)

**Dr Ian Baker, MBE, MSc, FRCP, FFPH. [Special Projects Assessor].** Once an aspiring clinical physician, my work in Nepal for two years converted me to public & global health. I gained necessary skills at LSHTM and MRC Epidemiology Unit. Moving to Bristol, I was a public health physician in various arrangements of the NHS for 23 years. I have maintained my links with Nepal and teach on the intercalated B Sc course for International Health in Bristol. I campaign with the national charity Medact and with Sustainable Bishopston.

## Reading List

1. *The Rough Guide to Climate Change* by Robert Henson; Rough Guides Ltd; 2Rev Ed edition (10 Jan 2008)
2. *An Appeal to Reason: A Cool Look at Global Warming* by Nigel Lawson; Overlook Press (29 May 2008)
3. *The Party's Over: Oil, War and the Fate of Industrial Societies* by Richard Heinberg; Clairview Books; 2New Ed edition (31 Jul 2007)
4. *Diet for a Dead Planet: Big Business and the Coming Food Crisis* by Christopher D. Cook; The New Press; New Ed edition (1 April 2006)
5. *When the Rivers Run Dry: Water--The Defining Crisis of the Twenty-first Century* by Fred Pearce. Eden Books (2007)
6. *The Tipping Point: How Little Things Can Make a Big Difference* by Malcolm Gladwell; Abacus; New Ed edition (14 Feb 2002)
7. *The Transition Handbook: From Oil Dependency to Local Resilience* by Rob Hopkins; Green Books; 1st edition (6 Mar 2008)