Topic 1 • Science Literacy Book & Movie Report (100,000 points)

PHYS-2050 (H15) • Spring 2006

Purpose

Science Classes

As a student, you have received science and science related information from your teachers. Whatever you believe it or not is up to you. But a professional has taken the time to determine what sorts of things are important to know and with how much detail, both for the purposes of the courses you are taking and for the more general purpose of “Science Literacy”, to help make you a better citizen and better able to function in our science & technology driven 21st Century.

How Will I Get Science Information in the Future?

For some of you, your courses at Western Michigan University may be the last time you will have the benefit of someone directing what science you are exposed to. So, what happens when you get to the "real world"? Well, you may be bombarded with information from all sorts of sources: your job, newspapers, magazines, books, television, radio, movies, the Internet, friends, conversations overheard while standing in line somewhere – you name it. What these methods may lack, though, is the control and expertise of your teachers. You can find all sorts of amazing information on the Internet, but you would have to be very naïve to believe 100% of everything you read there. Much of our news is dominated by politics, but how much science do our politicians know? At the moment, we have exactly one professional engineer and one physicist in the House of Representatives (both of these men are from Michigan – you should know who they are, but probably don’t), none in the Senate. Most of Congress is made up of lawyers. While there is nothing wrong with studying the Law per se, legal arguments do not follow the same rules and purposes of scientific arguments. Therefore there is nothing that requires an environmental cleanup bill, for example, to have anything to do with either the environment or cleaning it up. Likewise, no talking heads we get our news from on TV are trained in science and technology for the most part. I don’t know what Dan Rather or Connie Chung majored in at college, but I can probably bet it wasn’t Physics. They may have, unlike you, been able to graduate from college without ever having had a Physics course. Even on the cable channels, one of the hosts of a computer show I used to watch is now doing a cable show on gardening – get the picture.

So how will you evaluate information on your own? This is possibly something that you have never thought about, but Dr. Phil and other professionals have. Dr. Phil’s approach is to have you read a book and examine what you read and how it affects you, as well as whether you believe it. (You don’t have to.)

Learning to “Parse” Information

Evaluating what you read in this context is very much in line with definition 3 of the verb parse:

parse (pārs) verb

parsed, pars-ing, pars-es verb, transitive
1. To break (a sentence) down into its component parts of speech with an explanation of the form, function, and syntactical relationship of each part.
2. To describe (a word) by stating its part of speech, form, and syntactical relationships in a sentence.
3. To examine closely or subject to detailed analysis, especially by breaking up into components: “What are we missing by parsing the behavior of chimpanzees into the conventional categories recognized largely from our own behavior?” (Stephen Jay Gould).
4. Computer Science. To analyze or separate (input, for example) into more easily processed components. Used of software.

verb, intransitive
To admit of being parsed; sentences that do not parse easily. [Probably from Middle English pars, part of speech, from Latin pars (partem), part (of speech).]

Source: Microsoft Bookshelf ’95 (American Heritage Dictionary of the English Language (Third Edition))

Dr. Phil’s Definition of Science Literacy

Science literacy n. An exposure to science in a historical context that serves to allow a person to observe the world around them with understanding, deal with technological applications at home and work, appreciate the distinction between fact and speculation in the media and politics, have a working knowledge of numbers and the scale of the universe, and be able to pursue more information if desired, as a function of everyday life.

Philip Edward Kaldon, Fall 1995

Books as a Source of Information

From all the sources listed in How Will I Get Science Information in the Future, most are very difficult to evaluate. Dr. Phil can’t easily watch hours of VCR tapes or interview your friends along with every paper he reads to compare your impressions with the actual information being presented. So by narrowing the choices to one medium – books – we can have a little control and consistency between papers.

For more than ten years Dr. Phil has been building up a booklist of suitable books. They are, as you shall see, not just Physics books, but cover all the Natural Sciences, Engineering, Computers, Technology, Medicine and the Morality and Ethics of using these. The total list is kept around a hundred titles. Books come on and off the list from time to time, sometimes because Dr. Phil gets sick of reading too many papers on Airfragn or Jurassic Park, etc., and sometimes because some books work better with some classes (such as PHYS-309) than others.

Because this is not strictly a Physics paper but a Science Literacy paper, the range of books is considerable. There are fiction and non-fiction titles, biographies, science fiction, mysteries and technothrillers – books that straddle the line between science fiction and current reality – from some popular best-selling authors as Tom Clancy and Michael Crichton, covering topics that include Physics, Biology, Chemistry, Engineering, Computers, Mathematics, Technology, Medicine, etc. The list is anything but boring.

It is easiest to pick a book you have not read before. And if you pick a title from the booklist, that’s it. However, you may decide that (a) you have read everything on the list, (b) read everything you think is interesting on the list or (c) waited too long to get the book(s) you were interested in from the library and are now stuck. You may read a book that isn’t on the booklist, but you must get Dr. Phil’s approval beforehand and be prepared to hand in a draft of your paper at least one week before it is due. If you go ahead and write a paper on a book that Dr. Phil has not approved anyway, there is a 100,000 point penalty.

Movies as a Source of Information

It turns out that many of the books on Dr. Phil’s booklist have some connection to a movie or a TV program. If you are tempted to avoid reading a book by watching the movie version – don’t. For one thing, the movies are almost always different than the books. And not only has Dr. Phil read all the books, he has seen all the movies (and owns most of both). So if you just watch the movie, you are going to get caught (and it’s a 90,000 point deduction). Secondly, in most cases, even jaded students like you will usually conclude that the book is usually better than the movie. While there is a lot to say about movies, there isn’t the time to contain all the information content of the book. Movies, at best, hold the flavor of the book.

Having said that, it can be worthwhile to compare what is in the book and movie of a particular combination. Often Dr. Phil is using Book/Movie combinations for his second-semester Physics courses (PHYS-1150 and PHYS-2070 at WMU) as well as with the Honors PHYS-2050 students. Having more to evaluate means you have to write a longer paper – it’s only fair. You also have to split your paper between the book and the movie.

Scope of the Paper

A booklist only about Physics topics is likely to be a very short and boring list. A movie list only about Physics would be painfully short. While it is true that “Everything is Physics”, there is nothing more
pathetic that someone reading a really good medical story and then writing a paper where you try to find
the one or two things that seem like PHYS-2050 Physics, and so end up talking about the “Physics of
taking someone’s blood pressure”. While the use of a sphygmomanometer is rather fascinating, even
Michael Crichton isn’t likely to spend much time to reveal any information about its use in the pages of
one of his technothrillers.

The Assignment

- Select a book and movie combination from the “approved book and movie list” or get approval for a
different title from Dr. Phil.
- You should not read a book that you have already read, it only makes the assignment harder. You may
find that a book you are already reading for another class may be acceptable. It is less of a problem if
you have seen the movie.
- Failure to read an approved combo is a 100,000 point penalty.
- If you have ever had Dr. Phil before and you read any of the best-seller type books (Crichton, Clancy),
you must pick a different combo for this report. Failure to comply with this rule will result in an
80,000 point penalty. This is a science literacy assignment after all, so we want you to learn something
new.
- Book titles can be reported in a space provided on the first and second exams. If you don’t have a book
title in mind, or you don’t remember it, you can leave the space blank. This is partly so Dr. Phil can
see what people are doing and partly to remind you of this assignment. But it is not required.
- Read the book and view the movie (any order), especially with an eye as to how science is portrayed,
what you may have learned that was new to you, whether you believe it to be accurate or whether you
feel that the science issues were well explained. Remember that this is an assignment on science and
technical literacy, so what you already know (or don’t know) is important.
- Each combo in the list has a brief description of some points that Dr. Phil came up with. You do not
have to agree with Dr. Phil. This is an opinion paper and your opinion matters. Personal anecdotes
that tie in with what you have read are appreciated.
- This assignment is not just about Physics. This book and movie list is about science, engineering,
technology, computers and the history, application, ethics, morality, and understanding of it all. So the
paper is about this, too. To simply rate the book based on the “Physics” may be to miss the entire point
– or in this case, a good chunk of the 100,000 points.
- Write a 5 to 7 page report, typed, double-spaced and a single simple cover sheet, on what you read,
paying attention to the assignment. You can write more if you feel you need to, but more will not
translate automatically into a higher grade. Good grammar and spelling are expected.
- Dr. Phil is expecting that a “B” paper will satisfy the above requirements. Exceptional papers will be
rewarded; problems will be deducted.
- Late papers will drop an additional letter grade (10,000 points) per calendar day, starting after 5pm at
the end of the Grace Period.
- Papers are due at the start of class, or can be dropped off in Dr. Phil’s mailbox at the Physics Dept.
office by 5pm on the due dates listed below.

NOTE: The most popular combos, i.e. the ones Dr. Phil has read the most papers on, have been written
by Michael Crichton (The Andromeda Strain, The Terminal Man, Jurassic Park and Timeline). They
wouldn’t be popular (and rich) authors or have their stories turned into hit movies unless their writings
were a lot of fun. Now not all of these nine books may be authorized for this particular semester, and
no other Crichton or Clancy books will be approved, so don’t bother asking. But despite the fact that
they show up in a lot of papers, there is no problem with many people writing their papers on the same
book.

Content

This is an Opinion Paper

For many of the books you may have written in high school or college, they have not wanted you to
have or express your own opinions. But this is exactly what we want here – Dr. Phil wants to know what
you think, whether you liked the book, etc.

It is All Right to use “I”

Unlike some college papers, it is not necessary to write in a formal style. Since this is an opinion
paper, it is okay – even encouraged – to say that “I think that…”.

This is Not a Fourth Grade Book Report

Back when you were a kid, most book reports consisted of “I read Book X. This happened and then
this happened and then this happened.” What such a report really ends up being is just a discussion of
the plot. The problem with this is three-fold: (1) Dr. Phil has already read your book, so he knows how
the plot goes. (2) Writers like Michael Crichton and Stephen Hawking are best-selling authors because
they get paid more than you do to write – they’re better at it. Why would Dr. Phil want to read your
version of The Andromeda Strain when he can read the book? (3) Just replaying the plot of a novel or a
list of topics covered in a non-fiction book or the events in a scientist’s life in a biography does not
involve any analyzing of the subject. It is this analysis – thinking about what you just read, thinking
about what you already knew and what you have learned – that is the heart and soul of this science
literacy assignment.

You Can Be as Serious or as Light as You Choose

Some of the combos are more serious in tone than others. You are free to avoid them. One semester a
student asked if they could write their paper as if they were writing a letter to someone and talking about
their experience. Sure – as a writing technique it’s sort of a crutch, but it got the job done. Others have
taken a more humorous tone, or have gotten hostile or offended. Just remember that you should be able
to justify your comments. What is Dr. Phil supposed to make of a paper that says the book didn’t do
anything for them and it was boring and too technical after Chapter Four, and then in conclusion they
said it was a great book and they’d recommend it to anyone?

You Do Not Have to Agree With Dr. Phil

Most of these books and movies are on the list because Dr. Phil likes them and they cover some subject
areas that should make for good papers. However, everyone’s experiences and preferences are different.
Very few people in the world are Physicists or Physics teachers, and there are certainly very few Dr.
Phil’s in this world. So it would be surprising if you responded to every book the same way as Dr. Phil
did – especially since a good chunk of the book list was read a long time ago when he was a kid and not a
Ph.D. Physicist. Since Dr. Phil asks for your opinion, you are free to give it. You can hate the book.
You can loathe the movie. You can hate the assignment. You can decide that you didn’t learn a thing
from the combo. Fine. Great. Wonderful. Now just write it up. Give examples, be specific. Some of the
very best papers in a particular semester have come from the same book where the students reach
completely opposite conclusions.

Suggestions

The following are suggestions for ways to start your paper (or start thinking about your paper) if you are stuck:

- Why Did I Choose This Combo?

For some, the reason might be as simple as “it was the only book I could find”. If you were a
college student in 1903, you would have read a lot of books. In 2006, you can go to college and
avoid reading books. So everybody’s experience is different. Just be honest.

- What Did I Know (Or Not Know) Before I Read This Book?

When you sit down to read a book, there is a lot of stuff that you bring to the table with you – this
includes what you have learned in school, your life experiences, all the other books you have read in
your life, many hours of watching TV & movies and what you are interested in doing. These are
some of the things that will affect how you react to a book and these are some of the things that Dr. Phil would like to know about you, in order to understand your responses.

What Did I Learn (Or Not Learn) From Reading This Book?

Remember, although you might need to discuss a plot point to explain something, your paper is not about what happened in the book, it is how you reacted to what happened. When we watch a play or a movie read a novel or play a video game, we often engage in “a willing suspension of disbelief” in order to be entertained. Most people don’t really believe in wizards casting magic spells or the plots in James Bond movies or think that there really is a Darth Vader in a black helmet and cape that can use The Dark Side of the Force, or that terrorists set off a nuclear bomb at a Super Bowl game in Denver. But going along with the author is something we do to be entertained. Now, if you don’t buy it, you aren’t going to like it – we need to know this. If you don’t think that we really sent astronauts to the Moon (and some people don’t), then that will affect how you view any book about space travel. See how this ties in with the previous topic?

Pick 2 or 3 Good Examples

This is a 5 to 7 page paper. You don’t have time to discuss every one of the topics/chapters in Tom Wolfe’s The Right Stuff – it isn’t all in the movie – so you can’t. A rule of thumb might be about a page for your introductions, a page each for two or three good examples, a page or two of comparisons and a page of conclusions. Provided you follow the assignment – you’ve got your five or seven pages.

Conclusion

You really do have to wrap up your paper. After all, the premise is that books are one way that you might learn something about or improve your science literacy, so did you learn anything? Or did you read something that supported what you already knew? How does this assignment or this book affect your “world view”? Would you recommend this book/movie to your friends? … to other students?

Draft Review (Optional = NOT Required)

If you wish, you may submit a typed, draft copy of your paper at least one week before it is due. Dr. Phil will take a quick read and look for (1) basic mechanical flaws and structural problems in your paper and (2) how your paper fits in with the concept of science literacy and the purpose of the actual assignment. In return, the clock stops while Dr. Phil has your paper – if Dr. Phil has your paper for two days, then you add two days to your due dates, etc. The draft will not be graded and the submission of a draft is not required. If you choose to use this option, you must turn in your draft with your final paper – if you don’t then your final paper won’t be graded. This is to keep Dr. Phil from going nuts “as I experience major deja vu from thinking that I already had made a comment about some aspect”. (Please note that the phrase “rough draft” is never used, which should suggest that the draft be fairly complete as a paper. This is just a free shot before it counts. What could be fairer?)

Please note: If you choose a non-booklist but approved combo, you MUST submit a Draft.

Structure – Standard Format

Most of You Will Use Word Processing Software Rather Than Typing

The assignment describes a “typed” paper, but very few of you will actually use a real typewriter. In fact, most of you will use some version of Microsoft Word, on either a Windows PC or a Macintosh.

5 to 7 Pages, Double-Spaced, 1” Margins All Around

The goal here is uniformity of papers for everyone, as well as ease of reading for Dr. Phil.

Left Justified, Ragged Right Margins, Standard Indent for Each New Paragraph

This produces a clean left side of the page and is the easiest to read. Turning on “Justify” also lines up the right side of the page, but does so by inserting extra spaces in each line to pad them. This is fine for magazine and book publishing, where they have more control and different rules than you do, but in a paper it makes each line jerky to read and incredibly annoying. Each paragraph should be indented with either a Tab or alternately five spaces. Do not put blank lines between paragraphs – that’s padding.

Readable Font (Courier 12, Courier New 12, Dark Courier 11 – ONLY ALLOWED Fonts)

One thing Dr. Phil learned at the 2004 Clarion workshop was how much easier it is to read 115 papers when they are all in Standard Format. Now the standard will vary from professor to professor, industry to industry, but it is important to follow the rules. Since papers used to be “typed”, a typical standard font in college is COURIER – a non-proportional font that resembles typewriter print. Courier 12 point is large and easy to read, and it is readily available in some form for all printers using Windows, MacOS, Linux.

Most Windows computers use TrueType fonts (TTF), and there the standard is Courier New 12 point. However, Courier New is a little bit “thin” on a laser printer and isn’t nearly as dark as the Courier font on the original HP LaserJet printer from over twenty years ago. Turns out there is a “fix.” Hewlett-Packard has a free TTF font called Dark Courier which is, well, darker. Unfortunately it isn’t quite as clean on your screen, but it does print nicely on laser printers. (And if you ever have to make copies, Dark Courier photocopies much more clearly than Courier New.) You can use any of the regular Courier “family” of fonts for your paper. Using Arial, Times New Roman, Old Dreadful Number 7, etc., will be penalized.

Dark Courier is available from a lot of places, but if you get it from HP’s Tech Support, then you know it will be “clean.” Unfortunately the URL is really long and nasty – I’ll put on the website when I get a chance. The fastest way to find it is to Google: hp dark courier ttf. The first hit should be HP’s Business Tech Support. Sorry, I don’t know if you can install these fonts under MacOS.

NOTE: There is no requirement that you “write” your paper in Courier/Courier New/Dark Courier – only that you PRINT it out this way. Dr. Phil usually writes his fiction in “prettier” fonts like Garamond or this book affect your “world view”? Would you recommend this book/movie to your friends? … to other students?

NOTE: Handout may be reduced in size. Fonts may not display on the web page.

Structure – Standard Format

Most of You Will Use Word Processing Software Rather Than Typing

The assignment describes a “typed” paper, but very few of you will actually use a real typewriter. In fact, most of you will use some version of Microsoft Word, on either a Windows PC or a Macintosh.

5 to 7 Pages, Double-Spaced, 1” Margins All Around

The goal here is uniformity of papers for everyone, as well as ease of reading for Dr. Phil.

Left Justified, Ragged Right Margins, Standard Indent for Each New Paragraph

This produces a clean left side of the page and is the easiest to read. Turning on “Justify” also lines up the right side of the page, but does so by inserting extra spaces in each line to pad them. This is fine for magazine and book publishing, where they have more control and different rules than you do, but in a
them as ways to pad your page count and cut down on how much you have to write. Additional sources and additional information go on additional pages.

No Need For Footnotes
Again, this is not a formal paper in the sense of many other college papers. It is not required that you footnote, or even give page numbers, for every point that you make or quote (or phrase) you use from the book.

Five to Seven Pages
Please make a note that “5 to 7 pages” does NOT mean that 4½ pages is “sufficient”. It is not. Dr. Phil interprets “5 to 7 pages” to mean FIVE FULL PAGES PLUS YOU MAY BE GOING ONTO THE SIXTH PAGE. You can write more than seven pages, but there is no automatic reward for doing so. Some people, like Dr. Phil, just write “long”.

Padding Stunts
There are all kinds of “tricks” you could employ to try to make those five pages without writing five pages. But since Dr. Phil has specified the margins, line spacing, fonts, and further suggests that you do not indent new paragraphs by thirty spaces or put one or more blank lines between paragraphs, or start the first page halfway down because you are repeating as a header the information that is already on your cover sheet – these “tricks” to pad your paper won’t work. And endlessly repeating the same phrases or thoughts will be noticed because your paper will be read. And if you want to include a long quote from your book, the proper way to include a long quote of more than two lines on a page is to single-space the quote, so that it is (a) set off, (b) easily showing that it is a quote and not your writing and (c) so that it does not take up an excessive amount of space. Sorry.

Dr. Phil has in the past received papers with 3” top and bottom margins and 2” side margins. This leaves a typing area of only 4 1/2” by 5”; coupled with a 14 point or 16 point font, and even a four page paper under these printing conditions contains almost no text. Hardly seems fair to everyone else.

It’s the worst phrase in the world for the Y2K6 student, already struggling to get to work and maintain a home life: “And there will be a paper due…”

So Just What Do You Mean By A “College Paper”?*

A college paper is a reflection on you as a student, both in appearance and the quality of the work. It is expected that the writing assignments will be handled in a competent, serious and professional manner. To that end, a college-level paper by Dr. Phil’s definition contains the following non-negotiable elements:

- Typed (word processed), double-spaced
- Margins: 1” all around
- Page numbers (by hand is acceptable)
- Single, simple cover sheet
- Readable standard Courier font/typeface
- Good spelling
- Reasonably clean and proofread grammar
- Stapled in upper left-hand corner
- SINGLE-SIDED ONLY!

The Seven Statements
If you ask Dr. Phil what he wants in a paper or how to start, this is what he will tell you:

1. Do not spend the whole paper summarizing the plot (assume Dr. Phil has read the book and seen the movie – he has) and
2. Do not cheat and only rent the movie instead of reading the book (assume Dr. Phil has seen all the movies – he has – 90,000 point penalty),
3. You might want to explain how you chose this combo (sometimes it’s because it was the only one the library or video store still had),
4. When you sit down to read a book, you always bring something to the table, even it is that you know nothing about the subject, or have never read any science fiction or whatever – it is this stuff, what you already knew, that is part of what Dr. Phil would like to know about, plus …
5. What you learned or did not learn from the book and movie. If fiction, you might tell why you believed the author – or did not. If non-fiction, whether the author was understandable.
6. Give a couple of examples to show me that you read the book, but you won’t be able to talk about everything. Again: DO NOT SUMMARIZE THE PLOT BEYOND 2 SENTENCES!
7. Any kind of personal story or anecdote or current events that connects with your combo is super.

The Cover Sheet CANNOT Possibly Be Considered To Be Page 1
(If you can’t figure out how to do this, either number your pages by hand, or put the cover sheet at the end of the computer file.)

MANDATORY DEDUCTIONS FOR FAILURE TO COMPLY WITH THESE PERFECTLY REASONABLE RULES.

NOTE: Given that printing and typing are not always carefree processes, if you find that the printer does not line up properly or is otherwise giving you trouble at the last minute, write "Printer Trouble" on the back of the last page and very briefly describe your troubles; this lets Dr. Phil know that you were under duress and wouldn’t normally turn in a bad looking paper. You can then drop off a cleanly printed copy of the paper after the deadline, if one is required. PLEASE! Keep copies of your paper in two places – those USB flash drives are handy, inexpensive and work with most PCs, laptops and Macs.

If YOU USE A REAL TYPEWRITER, then spell checking and corrections are not automatic. Make sure, however, that you go over typed papers and make minor corrections with a pencil.

IF YOU DON’T CARE ABOUT YOUR PAPER, WHY SHOULD DR. PHIL?

Due Dates

The Grace Period Means You Can Turn In Your Paper on Thursday, Friday or Monday, as You Choose. If you submitted a Draft Paper to Dr. Phil, you must include the Draft with your Final Paper. NOTE: Watch Out For Exam 3

*Courtesy of Book Movie "comment":

Your Name

PHYS

2050H

11am

Spring

2006

PHYS-2050 (H15) (Kaldon) - Spring 2006 - 7
A Writing Sample

U-571 is about an American submarine that is sent out on a mission to infiltrate a wounded German U-boat and take its Enigma machine and codebook. The Enigma is the coding machine that the Germans used to keep their messages secret from the Allies. To not get one was to guarantee failure. Anyway, soon after the boarding crew grabs the machine, the American sub sinks and the Americans are stuck on a wounded U-boat. The movie is about what happens to them as they try to get back to America alive with the machine.

I really liked the movie and even though I don’t know how submarines work, the subs in U-571 definitely appeared realistic. The actors looked as though they had been trained in the Navy. It had excitement, adventure and tension. My one gripe is that you never get to know the characters. I mean, you how they act and how they feel at any particular moment, but you never really know them. Even though I didn’t like that, I think that wasn’t as important to the plot when the screenwriters wrote it. I think that what they did want to convey is what makes a captain a captain, because a lot of the movie is the lieutenant’s conflict over whether he would sacrifice a crew member or save the rest of them. Overall, this is an exceptionally good movie.

Chris Molnar, age 12
Sylvan Christian School
The Grand Rapids Press
Friday, 28 April 2000
The Weekend p. 31

So what does a paper for Dr. Phil look like? I’ve avoided simply copying what an “A” paper looks like, because then I’ll just get 25 to 100 papers just like that. But to some extent, it looks a lot like what this young movie reviewer has done regarding the Spring 2000 movie U-571. Now obviously this is a lot shorter than your assignment and Mr. Molnar’s agenda was very different than yours – he was a kid reviewing a movie for a newspaper. But in a little over half a page, Mr. Molnar has given a brief description of the plot of the story, identified that he doesn’t know a lot about submarines but that he felt that what was presented was believable, and that the characters, while not well-rounded, behaved in a believable manner. Now explain how you picked this particular book to read, add a few pages talking about what you know or don’t know about the science, engineering or computer technology (or the morality and ethics of using same) in the book you are reading, and then you’ll have a Dr. Phil book report. More or less.

HERE’S SOME NEW COMBO TO ILLUSTRATE WHAT WE’RE TALKING ABOUT

New for Spring 2006!

Airport (1970) Dean Martin, Jacqueline Bissett, Burt Lancaster, George Kennedy and academy award winning Helen Hayes show up in what I consider the first of the blockbuster movies, and the first of a series of Airport disaster movies (all of them increasingly stupider than the last) as well as the inspiration for the lampoon Airplane! Movies with Leslie Neilson. When Airport came out though, it was a big show with a big cast – and Americans weren’t even thinking about people putting bombs on airplanes, so it was exciting (and airlines refused to show it as an in-flight movie!), even if there’s almost a soap opera feel to it. The special effects won’t win any modern day awards, though they did pretty good for over 35 years ago. But I just saw the movie again in mid-January 2006 and it shows a world of aviation many Y2K6 students won’t find very familiar. You can get some mileage (but not the whole paper) out of talking about how today’s airline experience is different than “in the old days”.

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Airport / Arthur Hailey (1968?)

In the late 1960s and early 1970s, Arthur Hailey was an industry of big thick, fast moving, complicated novels chock full of the operating details of an industry: Airport (commercial air travel), Wheels (Big Three automakers), etc. Airport wasn’t his first, but it was the first big bestseller. Both the book and movie really broke frontiers when they came out. In some ways, I consider Airport to be the first real technothriller book and the movie to be the first modern blockbuster. I’ve listed this book as a “IX” solely because it’s a little thick, but it’s not complicated or hard to read. In many respects, the technical descriptions in the book probably feel a lot more realistic and up-to-date than the movie, so it’s still well worth it if you’re interested in aviation to read the book for content.
Topic 1: The One Page Version (100,000 points)

1. Pick a combo from the booklist. If you don’t want to use a combo from the booklist, you must get approval from Dr. Phil and turn in a Draft Paper at least a week before the due date. If you had Dr. Phil before, you can’t use the same book.

2. Read the book. Watch the movie. This is a Science Literacy assignment, not just Physics. So read the book with an eye toward what you are finding about all the sciences, engineering, technology, computers, medicine, and the morality and ethics of using them. Is the author believable? Understandable?

3. Think about what you brought to the table before you did the combo – what you know, your experiences.

4. Consider what you learned. Is it new to you? Or is it something you already knew? This is an opinion paper, so what you know and what you think does matter. You do not have to like your combo.

5. Write the paper. Do not just retell the plot or story. Dr. Phil has read the book; see the movie and so have you. Start from there. You might begin by telling why you selected this combo. Then pick 2 or 3 things and talk about them in the context of (3) and (4) above.

6. Be careful to make sure you are talking about the combo your paper is on. Dr. Phil has seen all the movies and read all the books.

7. The paper should be written in English with correct spelling and reasonable grammar. Because it is an opinion paper, you may use the word “I” – as in “I think that…” (first-person is acceptable).

8. The paper should be 5 to 7 pages typed (probably on a PC or Mac using a word processor in April 2006), double-spaced, with 1” margins all around, a single simple cover sheet, and numbered pages. The cover sheet cannot be page 1, and 5 to 7 pages means that there are at least 5 complete pages of text without extra blank lines at the beginning or end. You may write the page numbers by hand if you wish.

9. Most computer printers and word processors allow you to control the font (lettering) size and style. Acceptable fonts are: Courier/Courier New (12 point), Dark Courier (11 pt). If you have printer problems, contact Dr. Phil. If you typing on a real typewriter, see Dr. Phil.

10. You may, if you want to, turn in a Draft Paper at least one week before it is due, for a free evaluation by Dr. Phil. If you are reading a combo not on the booklist and Dr. Phil approved it, you must submit a Draft Paper. In either case, if you turned in a Draft Paper and Dr. Phil marked it up, you must turn in that marked up Draft with your Final Paper, or your Final Paper will not be graded. The number of days that Dr. Phil has your Draft are added to your Due Date, so there is no penalty for writing a Draft.

11. Papers are due on Thursday 13 April 2006 by 5pm. You have a Grace Period that extends until Monday 17 April 2006 at 5pm – that means you can turn in your paper on that Friday or Monday with no penalty. After that, there is a 10,000 point/day penalty.

12. Major penalties: Writing about the movie and not the book—90,000 points. Writing about a combo that was not approved or on the booklist—100,000 points. Previous Dr. Phil students reading the same book—80,000 points. Writing only about the Physics in a combo that isn’t about Physics—or—Writing only about the plot with no analysis—the fraction of 100,000 points that the offending section covers. Other minor penalties assessed based on severity/frequency (2000 points ea.)

13. Papers that meet the minimum qualifications are worth at least a “B”. Exceptional papers will be rewarded; problems will be deducted.

Dr. Phil likes most of the papers he gets, but it takes some effort to get everyone to take this assignment seriously.

This handout is also at: http://homepages.wmich.edu/~kaldon/classes/ph205-h15-bm.htm
20th century’s great stories. To me, the best part is that he not only explains what is going on, but weaves a story that lets you understand what the scientists did and did not know and the whole politics of the Manhattan Project. Braces VII - H L I V - V

The backing to this story is the Manhattan Project, as we follow the main character, a Native American Army sergeant, who is also J. Robert Oppenheimer’s driver. Not only does this place us in the middle of the action, but he has legitimate reasons for getting all these people to explain what is going on to him. Shatation Gate was the location of the first atomic bomb test and nearly all the characters in this historical novel are real.

**The Right Stuff** (1983) Sam Shepard, Scott Glenn, Ed Harris. Dennis Quaid = Long and comy, but somehow carries the weight of the right stuff. The difference in feel from Apollo 13 actually feels right, too. LI, LIV, V

**Inherit The Stars** / James P. Hogan

This very popular book about the birth of the Astronaut heroes and their transformation by the media into Heroes was made into a movie that was supposed to launch John Glenn into the White House in 1984. Didn’t happen. Actually, there is a lot more in the book than in the movie, but you might want to see a peek at the movie if you aren’t familiar with some of the gadgets of aircraft flight testing and spaceflight - the movie is mostly pretty accurate. (But don’t just review the movie!!)

**Apollo 13** (1995) Tom Hanks, Bill Paxton, Kevin Bacon, Gary Sinise, Ed Harris. In years to come you will see the scenes from this movie instead of the original NASA recordings because they look more real.

**The Andromeda Strain** (1971) Arthur Hill, James Olson = Typical of early 1970’s movies in sort of sterile view of high tech. At the time this film was shot, the stainless set for the dramatic climax was the most expensive single set ever ($7 million). Those are real lasers, burning real make-up off James Olson. But forgive me, for many people even that doesn’t make it to the Moon, this movie compelling story. Tom Hanks always wants to do something about this mission, and when Ron Howard ran across Lost Moon, their agents got together and...

**The Andromeda Strain / Michael Crichton**

The first major sci-fi book I ever read. Crichton’s gift as a writer is to blend fact and fiction so that you cannot tell what is true and what is story. (There really is a Jerry Stone and all those publications of his listed are real.) A secret satellite falls out of orbit and the entire population of the town of Piedmont, Arizona is mysteriously wiped out. Well, almost everyone. Will the scientists understand what is going on in time? You’ll just have to read the book (don’t just rent the movie). Sci-fi, sure, but it is often mentioned when real plagues like Ebola are mentioned.

**The Bedford Incident** (1965-B&W) Richard Widmark, Sidney Poiter = The movie version of The Hunt for Red October is all flash and no sizzle. Pretty, but dumb. This older film so that you can appreciate more the whole thing in one sitting. The special effects in this movie made

**- H W K L V - The Hunt for Red October**

Clancy is well-known as the writer of modern, fast paced, techno-thrillers that seem to know far too much about the workings of classified Defense Department equipment and the inner workers of the CIA and the intelligence community. There is a lot of science and engineering detailed in these two books - a good read to take some of the mystery out of all that secret stuff. The Hunt for Red October involves the attempted deployment of a brand new Soviet super-sub; the United States is trying to help them defect while the USSR is trying to sink them. The movie, although entertaining, is much shallower than the novel, as is typical. Some people like all the descriptions of the technology, but a certain amount of it can be skimmed or skipped if you want to get back to the story. Jack Ryan, who has been played in the movies by Alec Baldwin and Harrison Ford, is the main character in both stories.

**Five Million Years to Earth** (1966) - This UK film I only just saw recently, where it’s been playing on AMC (American Movie Classics). Suffers a bit at the end because they didn’t have a huge budget, but the beginning part is very reminiscent of the beginning part of Planet of the Apes. Makes one wonder what if we ever found aliens... LI, LIV, V

When Prof. Strickland, former chair of the GVU’s Physics Dept., first brought this S.F. book to my attention, my first thought was my usual evil thoughts to S.F. book cover artists who don’t have a clue when it comes to science. A
thing. There are two versions: 140 minute version is original release, 190 minutes version was made for network TV and David Lynch took his name off the movie, but the extra explanations are a real help at times.

This is a classic science fiction novel of an alien desert ecology, combined with all the galactic drama and interstellar politics you could ever want. A generation of science fiction readers grew up blown away by the scope and grandeur of this novel, which has achieved a stature almost like J.R.R. Tolkien's Lord of the Rings trilogy, especially since Dune was followed by numerous sequels. (The sequels are best enjoyed by those fascinated by the politics; otherwise, they suffer from the usual sequels problem of a loss of innocence from the first, wonderful book.)

The 13th Warrior (1998) Antonio Banderas - The connection here is the visualization of the Viking culture, use of technology, etc. This combo requires MORE thought that a average student thinks it does, and the movies are batting about .500 for quality (as opposed to .825 in general).

During the Cold War, the threat of nuclear extermination was something tangible and real. And books like Fail Safe On the Beach (1959)
were both terrifying nightmares and warnings that made people stop and think about what they

On the Beach / Nevil Shute (1957)

the world ends with a whimper and not a bang, at least for the last of the human race on Australia.

ST:DS9
and

ST:TNG

• An End of the World story, where

On the Beach (1959)

you could have tried to recreate this odd world, but they did. Watch for Dana Carvey and Colm Meaney (Miles -or- (Mix and Match the Books and Movies – one of each or both the same, your choice)

Dustin Hoffman, Rene Russo, Morgan Freeman, Kevin Spacey, Cuba Gooding, Jr. • Take The Hot

Outbreak (1995)

W - L - • The Terminal Man / Michael Crichton (1970)

After the triumph of The Andromeda Strain and the publishing of the non-fiction Five Patients, Crichton produced this
cynical fictional story of unscrupulous doctors forging ahead with a research project to help epileptic patients control

Michael Crichton's Andromeda Strain also spins a yarn about scientists rushing to prevent the spread of a deadly organism.

Jurassic Park / Michael Crichton

In some ways this is a very important film on time travel, because they
do it even though you know that it would change everything in your own time? That the era and the peoples that ... unfold from the time of your meddling. And you thought that it was tough deciding where our garbage should be disposed of!

The Connection here is the visualization of the Viking culture, use of technology, etc. This combo requires MORE thought that a average student thinks it does, and the movies are batting about .500 for quality (as opposed to .825 in general).

As is typical, compressed from the book rather than a docudrama, but very good.

Timecop (1993) Jean-Claude Van Damme • In some ways this is a very important film on time travel, because they
cover all or nearly all of the (seven) major time travel paradoxes. The connection here is about messiness around with time.

As has been noted earlier, time travel is definitely an odd sub-genre of science fiction. We can imagine traveling to other stars, even if it really might take extraordinary time and measures, but how... is it, will it, could it be possible

• If anything, the movie version is even more Crichton's statement on the

The Terminal Man (1974) George Segal • If anything, the movie version is even more Crichton's statement on the

Outbreak (1995)

W - K - - • The Road to Wellsville / 1994

Henry Fonda, Walter Mathau, Larry Hagman – to getting some sense about rocketry and eventually working with the Big Toy's NASA operates. For most of us, the era of Sputnik is as foreign as living in a company town in the middle of nowhere.

• In some ways this is a very important film on time travel, because they
do it even though you know that it would change everything in your own time? That the era and the peoples that ... unfold from the time of your meddling. And you thought that it was tough deciding where our garbage should be disposed of!

Jurrasic Park (1993) Sam Neill, Laura Dern, Jeff Goldblum, Richard Attenborough • Do not select this book & movie

The Road to Wellsville (1994) Anthony Hopkins, Matthew Broderick, Bridget Fonda • Who would have thought that
you could have tried to recreate this odd world, but they did. Watch for Dana Carvey and Colm Meaney (Miles O'Brien on ST:Next and ST:DSS).
Time travel has fascinated science fiction writers for a long time. Imagine going back and see what really happened.

33. *Time and Again* / Jack Finney

I have resisted putting this title on my book-only booklist for years, because as Crichton himself explains, this book/movie combo might be: how are we cemented into this time period by all the things that surround us? Could a friend of mine in graduate school was sitting there reading this book from cover to cover, swearing the whole time. His head anyway, you might want to look at the film that George Lucas developed from his University of Southern California film school project. Makes Logan's Run look like paradise. The problem of treating people like interchangeable parts is that after a while they act like parts, and not like humans. Watch for people not taking responsibilities, because they've never had to before. Hard to believe that they got so many real actors to shave their heads for this low budget ($50,000) movie. The very best visual joke in the movie is missing in the VHS version, because they don't pan over far enough to show the counter change for number of cops on duty. ("THX-1138" is also heard in one of the background radio calls on one of the Death Stars in the Star Wars Trilogy.)

**The Abyss** (1989) Ed Harris, Mary Elizabeth Mastrantonio, Chris Elliot. There are two versions of this James Cameron movie. The theatrical release is fine up until the wimpy ending—the last 15 minutes stink. The Special Edition available on DVD and VHS includes an additional 23 minutes which actually explains what happens. Incredible most of the underwater scenes were shot in a set submerged under two million gallons of water. And you thought filming Titanic was tough. This movie came out just about the same time as other underwater pics like *Titanic* and the excitement of discovery. And how we know what we know. (Also some of the worst simulated zero-gee floating ever filmed.) But for me, this movie is a fave. On a big screen with Dolby™ sound, you really believe that the parts. Definitely raises a lot of ethical questions.

**Somewhere in Time** (1980) Christopher Reeve, Jane Seymour. *A romantic movie set in 1912, and it isn't! Titanic! But it was filmed at The Grand Hotel on Mackinac Island in Michigan. In Time was not a hit originally, but has its devoted fans. The modern print is tougher and hard to kill. Oh sure, there are some plot flaws you could drive a battle fleet through and science is sometimes tossed out the window, but a real gung-ho war movie it is visually stunning, fast paced and exciting. And there's plenty of fodder to praise and shred for your paper, especially with Armor as the book part of the assignment. Oh, and don't ask about using Heinlein's original book for your comparison.

**Titanic** (1997) Kate Winslet, "That Leo guy", Billy Zane, and hundreds of extra! Anyone who knows Dr. Phil since January 1998 knows he is a huge fan of this movie – that should be enough to scare some people away from doing this one! But Titanic is quite a physics movie, as well. The sinking of the ship is a window to the steamship era. The striking of the ship was a major shock to both sides of the Atlantic, and along with the Hindenberg and Challenger, had a profound impact on history and technology, to say nothing of the creation of the U.S. Coast Guard. Started in 1912.

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**Armistice Day** (2008) Ryan Reynolds, Mira Sorvino. *Armistice Day* is a political thriller about the old, cold conflict between North and South Korea. When a North Korean missile is fired at Washington, D.C., the ex-MI6 agent who helped bring down the Berlin Wall is called in to help. The US President's daughter is a key player, and the South Korean President is a former CIA agent who may be involved in the plot. The stakes are high, and the action is fast-paced.

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For those of you well-versed in many of the books and movies included here, a challenging assignment on the nature of the End of the World. We'll know it. Two very odd movies and two classic SF books – pick one of each.

**The Quiet Earth (1985)** - This New Zealand film is about a world where it appears to be the last human being on earth. Well, at least until you discover that there are two other people. But everyone else is gone, you are going crazy and it turns out that maybe you are responsible for killing everybody. Talk about the morality and ethics of using technology.

**The End of the World (1991)** - William Hurt, Solvieg Dommartin, Sam Neil - This is one of Dr. Phil's all-time favorite movies. It is, as they say in the movie, "around the planet and what a dance it is. It is a long story, and if you were to stop every 10 minutes and ask 'who are the good guys and who are the bad guys' and 'what is going to happen next', you would be wrong every time. This whole movie is about there is a HUGE left turn in the middle (it would be a really classic depressing movie if it just ended at the pivotal plot point), and in a real twist you will discover that the left turn in the middle means that the beginning is the end, but it really makes you wonder about technology and your reliance on it. This was supposed to be a huge hit in 1991 and has one killer soundtrack CD, but it was the first movie managed by Sony after they got involved in the movie business and Hollywood decided that the Japanese "interfered" with the making of the movie, and so in protest there were efforts to keep this movie from being promoted or seen. There are lots of Sony HDTV (High Definition Television) technology on display here, and despite it being ten years old, it is still a vision of what life with HDTV and whatever comes after Microsoft Windows will look like. Very stylish, very complicated - and everything is wrong.

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**A Beautiful Mind (2001)** - Russell Crowe, Mister Action Gladiator, led this movie to a pile of Oscars – playing a schizophrenic mathematician? If that doesn't get you, then the fact that is based on a real story might. Ron Howard crafts a fine movie here, with lots of tension, great score and a real attempt to show you what being a schizophrenic is about. Not so hot about what being a high level mathematician entails. But...

**The Difference Engine (1989)** - William Gibson and Bruce Sterling - W K L -

John Forbes Nash, Jr. came out of West Virginia and ended up winning the 1994 Nobel Prize in Economics. What happens in between is both amazing and tragic. Now, are we going to be surprised that the book covers a LOT more territory than the movie? That one wonders exactly how one gets from Nash's book to Howard's movie? I don't think you're supposed to ask those questions – except that this is EXACTLY what this assignment is about.

New Combos for Fall 2001!

**Cast Away (2000)** - Tom Hanks, Helen Hunt - Talk about product placement, FedEx gets the bargain of the century, and for free. Dr. Phil has had several books

**Enigma (2001)** - Dougray Scott, Kate Winslet - Watch carefully so you’re not confused, there’s a little time shifting in the middle of scenes, but this is a swell movie about the code-breaking the British did at Bletchley Park during World War II. The Germans were so confident in the security of the Enigma coding machine, that throughout the war they were careless, and brilliant minds, including Alan Turing, devised clever ways to shorten the odds. Gibson and Sterling's creation is no less ethically appropriate than the 1960's paranoid visions of aliens. The big difference between abridged and unabridged versions of the book, as noted in From the Earth to the Moon, is much longer inventories and descriptions of things in the latter.

**Until the End of the World (1991)** - William Hurt, Solvieg Dommartin, Sam Neil - See listing above...

**The Difference Engine / William Gibson and Bruce Sterling**

**Neuromancer / William Gibson**

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**Bladerunner (1982)** - Harrison Ford, Rodger Hauer, Edward James Olmos - Hollywood thought we were too stupid to understand this movie, based on Philip K. Dick's novel Do Androids Dream of Electric Sheep?, so they included this narration by Harrison Ford and tried to make a film noir movie have a happy ending. Finally, Director's Cut released a few years ago, restoring lots of dialogue and scenes that had been replaced by voice-overs. Ford is a special type of cop, pursuing "replicants", manufactured people designed to work and fight in the off-world colonies and programmed to die after a few years of service. They are given a lifetime of memories, though, and some escape their harsh work environment and try to blend in with real humans on Earth. Though why anyone wants to come to the dreary version of L.A. in this movie is anyone's guess – does it stop raining? If you think advertising is obnoxious now, wait till you see how they jazz things up "in the future". Very dark, very compelling, very compelling film. By the way, the Bradbury Building's front facade figures prominently in several shots, and it has show up in several other movies, including O.A.I. (I think in both the original and the remake.)

**Neuromancer / William Gibson**

**Islands in the Net / Bruce Sterling**

**A Canticle for Leibowitz / xxxxxxxxxxxxx**

**Alas Babylon / xxxxxxxxxxxxx**

**Level 7 / xxxxxxxxxxxxx**

**Stylized, the end of the world story of a future that seemed all too possible in the 1960s and 1970s.**

**Until the End of the World (1991)** - William Hurt, Solvieg Dommartin, Sam Neil - See listing above...

**The Difference Engine / William Gibson and Bruce Sterling**

**Neuromancer / William Gibson**

**Islands in the Net / Bruce Sterling**

**A Canticle for Leibowitz / xxxxxxxxxxxxx**

**Alas Babylon / xxxxxxxxxxxxx**

**Level 7 / xxxxxxxxxxxxx**

**Stylized, the end of the world story of a future that seemed all too possible in the 1960s and 1970s.**

**Time and Again may be made into a movie; something that couldn't have been done well with movie making technology even just a few years ago.**

**Phys-2050 (H15) (Kaldon) - Spring 2006 - 19**

**Phys-2050 (H15) (Kaldon) - Spring 2006 - 20**
If you’ve seen the movie U-571, you’ve seen the story of how they got the four rotor Enigma coding machine, except that Hollywood turned the Brits into Americans – which infuriated the Brits.

------ Cryptonomicon / Neal Stephenson (1999) OH, yeah, here’s a real Dr. Phil book – 910 pages and includes data functions, equations with infinite sums, Perl scripts and an appendix with a coding scheme. It’s technofiction, coupled with World War II code decryption, deceit and a mad pursuit of missing gold. It’s modern, talking about computer networks, infrastructure, bandwidth, data haven and security issues. And Fins, MLA (Modern Language Association), Alan Turing, Bletchley Park, U-boats. Having read this book in July 2001, I found myself fully prepared to understand the collapse of Global Crossings. Much fun, but you’ve got to be a reader. (Dr. Phil devoured it in three days, in between other work.)

You could also combine Enigma with the movie A Beautiful Mind to compare the reality of codebreaking with the schizophrenic delusion, plus there is another connection between the two movies.

A Futurist’s Comparison: Pick two of these movies and talk about their vision of the future in terms of society and/or technology. Which of these technologies would you find irresistible? Which could you do without? How does this compare with the gadgets and toys of Spring 2006?

Minority Report (2002) Tom Cruise • Steven Spielberg’s adaptation of the Philip K. Dick story is, I think, heavily influenced by his work on Stanley Kubrick’s A.I. A previous Philip K. Dick story turned into film is the classic Bladerunner – both involve cops and interesting twists on crime. Both movies are visionary in their view of the future (and advertising technology!). Basic story involves the concept of “pre-crime”, being able to see, through the “dreams” of three modified humans, crimes before they happen. The police then zip in and prevent the crime from happening, but also get the potential murderer off the streets. It raises some very hard questions about Rights in the U.S., and there are some uncomfortable comparisons with some of the investigative detentions that have occurred in the year since 9/11/2001 – which would not have been there when the film was being made...

A.I. (Artificial Intelligence) (2001) Halle & Joely Osment, Jude Law • Stanley Kubrick had this film in development for more than ten years, really waiting for technology to catch up so that he could film it seamlessly and make it look believable. Eventually he realized that he wouldn’t live long enough to finish it and brought in Steven Spielberg to make the movie. The result is an odd amalgam. It is a Kubrick film, but with a Spielberg feel-good happier second ending. Basic story involves an artificial little boy brought into a family whose own boy is in suspended animation, awaiting a future cure, but the real question is one of what makes an intelligence a life? Kubrick’s heavy hand can be seen in the ways that he makes the artificial and the human fake. A nice morbid tale.

Bladerunner (1982) Harrison Ford, Rutger Hauer, Edward James Olmos • See listing above...

Until the End of the World (1991) William Hurt, Salveg Dommartin, Sam Neill • See listing above...

A U-Boat Comparison: Pick two of these movies and talk about submarine technology – what you know and what you learn from the movies.

Das Boot (The Boat) (2002) Jurgen Prochnow • There are multiple versions of this movie, which was originally a German TV Series that ran for five years and was available long or longer, in English (a really bad dubbing job) or in German with English subtitles. You really get a feel for the crew, nearly all of whom are Germans, but not Nazis. Still, you may catch yourself rooting for the “wrong” side from time to time. The only U-boat that exists is in Chicago in the Museum of Science and Industry. The U-boat in Das Boot is based on careful analysis of the U-505 in Chicago.

U-571 (2000) The Allies need to get their hands on a German Navy four rotor Enigma coding machine and this sub crew goes out to steal one from a German U-boat. Then things get exciting… If you see this movie after Das Boot, it may seem eerily familiar. Hollywood also had to go to the U-505 in Chicago. But they chose to use wide-angle camera lenses, which gives the film a different look.


The combo list is not as extensive as Dr. Phil would like, so I am very interested in hearing about anyone’s suggestions, especially for non-SF or non-military titles.

Don’t bother asking to read other Clancy, Crichton or The Lost World (Jurassic Park 2). A: “No”,

New – An attempt to code the titles as an aid to keep you from making a bad mistake.

I. – Best-Seller

Many books are popular in their field, but a best-seller is defined as one that appeals to a much wider audience. Should be readable.

II. – Fact

This book is based on Fact.

III. – Fiction

Fiction is made up. All Novels are fiction. Occasionally a book is based so much on a real incident, that I’ve coded at least one book as both Fact & Fiction.

IV. – History/Biography/Reminisce

The material in this book is based on actual events, which you could look up elsewhere, or use as a reference to some extent.

V. – Technology

The technology of 1999 is the technology of the 20th Century. This includes more than just the latest Intel Pentium III, chips at 650 MHz, but all sorts of stuff invented since the 20’s and 30’s. Understanding our technology is a major cornerstone in what Dr. Phil calls Science Literacy.

VI. – Non-1999 Technology

Most of us would not survive very well outside the 20th Century technological base. Studying the technologies of the Victorian or Edwardian engineers (19th & earliest 20th Century), or of metal work in the year 1000, or how one gets food to the table in a world without Saran Wrap™, microwaves or McNuggets™ is one window on today. A few books that study possible future technologies are also labeled with this code.

VII. – Fantasy/Alternate Worlds

Some people argue that all Science Fiction is just somebody’s fantasy, but technically Fantasy applies to stories that exist outside the realm of science – nearly anything with Magic, for example. Magic is often written in such a way that it becomes a science or a technology to its users in fantasy, and this is a good way to learn to study how and why we know science.

I’ve also included in this code, some books which have chosen to rewrite what history we know, again as a way to evaluate where we are today. These are What if…? books.

VIII. – Difficult to Evaluate

These books are minefields in some way. You can write a really lousy paper by not getting the point of the book and many people have. Most book reports on The Diamond Throne, a fantasy book, or Dune, an SF book, concentrate on the politics.

Now if you are going to talk about the politics in relation to Science Literacy, you’re going to have to be really good. Otherwise, its best to stick the mantra for this paper: Science, Engineering, Technology, Computers, Math and the Morality and Ethics of Using Same.

IX. – “Nutrient Dense”

Fancy way of saying get a good hard book.

X. – Advisory for the Faint of Heart

Contains one or more of the following: adult situations, controversial materials or descriptions that are hard to handle. You have been warned!

This Version of the List Contains 42 (or so) Book Titles and About an Equal Number of Movies. Many of the Books Are Listed In The Computer Catalogs At Area College and University Libraries

(That the Library Codes are Out-of-Date).

Maybe. Just Maybe. You Might Want to Keep This Handy Book List for Future Reference?

All Titles Have Been Carefully Chosen. So If You Don’t See Any Science In A Particular Title Rather Than Saying “I Don’t See Any Science” Why Not Ask Yourself: “Why Do You Think That Dr. Phil Put the Title On The List?”

Be Sure You Read The Assignment Sheet Carefully Before You Write Your Paper

See This Handout for More Information About the Format for Papers!