

## SYLLABUS

### VÝSKUM V ZDRAVÍ VEREJNOSTI

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#### Doktorandské štúdium (PhD) pre interných aj externých poslucháčov

Cieľom doktorandského štúdia je získať kompetencie v oblasti vedy a výskumu pre upotrebenie v oblasti vedného oboru 7.4.2. Verejné zdravotníctvo.

#### Zručnosti získané v predmete

Štúdiom predmetu absolvent získa základné zručnosti z oblasti všeobecného a cieleného vedeckého poznania. Zároveň sa oboznámi s metodikou vedeckej práce, kritickým čítaním a pomôckami pre vedecké štúdium.

#### Štruktúra predmetu

1. Základy metodológie vedeckého poznania.
2. Zdravie verejnosti z pohľadu vedy a výskumu.
3. Kritické čítanie a hodnotenie vedeckých dôkazov.
4. Vyhľadávanie a rešerše v bibliografických databázach ISI, PUBMED, SCOPUS, Slovenská lekárska knižnica (zakúpiť vzdialený prístup), NISPEZ - Národný informačný systém podpory výskumu a vývoja na Slovensku dostupný cez CVTI SR (zakúpiť vzdialený prístup), Knižnica TU, Centrálny register publikačnej činnosti.
5. Práca s literárnymi odkazmi, citačné normy slovenské, Harvard a iné. Použitie systémov ENDNOTE alebo MENDELEY.
6. Vytvorenie eseje.

#### Poznámky k jednotlivým okruhom

##### Ad 1. Základy metodológie vedeckého poznania.

- a) Prečítať Popper: Popper, K.R. & Miller, D. *A pocket Popper* (Fontana, 1983), alebo plný text knihy Karla Poppera: *Logika vedeckého bádání*
- b) Preštudovať legislatívne normy: *Zákon o organizácii štátnej podpory výskumu a vývoja* a o doplnení zákona č. 575/2001 Z. z. o organizácii činnosti vlády a organizácii ústrednej štátnej správy v znení neskorších predpisov. 172. Bratislava: IURA EDITION, spol. s r. o.
- c) EU 2006. *Európska charta výskumných pracovníkov*, Kódex správania pre nábor výskumných pracovníkov. Luxembourg: Office for Official Publications of the European Communities: European Communities. EUROPEAN & COMMISSION 2013. *Ethics for researchers. Facilitating Research Excellence in FP7*. In: EC DIRECTORATE-GENERAL FOR RESEARCH AND INNOVATION, S. I. S. C. F. (ed.). EU, Brussels.
- d) MIN.ŠKOLSTVA 1997. V Y H L Á Š K A Ministerstva školstva Slovenskej republiky o doktorandskom štúdiu. In: REPUBLIKY, M. Š. S. (ed.) Zbierka zákonov č. 131/1997. Bratislava: Ministerstvo školstva Slovenskej republiky.
- e) OECD 2002. *The Measurement of Scientific and Technological Activities. Frascati Manual 2002*. Proposed Standard Practice for Surveys on Research and Experimental Development. Brussels: OECD Publishing.

##### Ad 2. Zdravie verejnosti z pohľadu vedy a výskumu

- a) Prečítať knihu TULCHINSKI, T. & VARAVIKOVA, E. 2008. *The New Public Health*. 2 nd Edition, Academic Press.

### Ad 3. Kritické čítanie a hodnotenie vedeckých dôkazov.

- Prečítať knihu o kritickom čítaní, napríklad: Read a book on critical reading, suggested: YUDKIN, B. 2006. *Critical Reading: Making Sense of Research Papers in Life Sciences and Medicine*, Taylor & Francis;
- Prečítať brožúru vývoji guidelines z produkcie NIKI (na stránke [http://www.quality.healthnet.sk/EBM/Guidelines\\_development\\_handbook\\_Slovak\\_version\\_v1.pdf](http://www.quality.healthnet.sk/EBM/Guidelines_development_handbook_Slovak_version_v1.pdf));
- Nájsť v knižnici Cochrane dôkazy pre problém riešený doktorandom a zoradiť ich podľa sily dôkazu;
- Oboznámiť sa s NICE (National Institute of Clinical Excellence) a oboznámiť sa s guidelines, ktoré priamo alebo okrajovo súvisia s témou výskumu doktoranda.

### Ad 4. Bibliografické databázy

- Oboznámiť sa s históriou MEDLINE (BLANKENA, R. R. & PIERRE J. VINKENB, P. J. 2001. *Medical Databases: Medline versus Excerpta Medica*. In: FREDRIKSSON, E. H. (ed.) *A Century of Science Publishing: A Collection of Essays*. IOS Press) a ISI (CAWKELL, T. & GARFIELD, E. 2001. *Institute for Scientific Information*. In: FREDRIKSSON, E. H. (ed.) *A Century of Science Publishing: A Collection of Essays*. IOS Press. <http://www.garfield.library.upenn.edu/papers/isichapter15centuryofscipub149-160y2001.pdf>) prípadne s celou knihou FREDRIKSSON, E. H. 2001. *A Century of Science Publishing: A Collection of Essays*, IOS Press ( k stiahnutiu na <http://ebooks.iospress.nl/book/a-century-of-science-publishing> ).
- Vykonať úplnú rešerš k riešenej problematike zo zdrojov World of Knowledge, MEDLINE a slovenských knižníc. Pripraviť zoznam použitých MESH kľúčových slov.

### Ad 5. Práca s citáciami

- Získať skúsenosti s osobným bibliografickým software. Odporúčam začať s používaním osobnej profesionálnej knižnice (nemám samozrejme nič proti jej používaniu pre iné ciele). Odporúčam EndNote z produkcie Thomson Reuters, <http://endnote.com/>. Je to komerčne dostupná databáza, predajca poskytuje aj študentské zľavy. Je to svetovo známy software a väčšina iných knižníc ho podporuje. Pre tých, ktorí sú priaznivcami open source je k dispozícii viacero aplikácií. Napríklad MENDELEY je zdarma, ľahko použiteľná a je zdarma. (<http://www.mendeley.com/>) Akokoľvek sa doktorand rozhodne vytvorí si databázu publikácií, ktoré použije vo vlastnej práci.

### Napísanie eseje

Use structured approach as it is outlined in many sites, as for instance this:

Title (Centered or left-aligned)

#### I. Introduction

- Premise/Thesis
- Statement of points

#### II. Body

- Point 1
  - Supporting Information
  - Supporting Information
- Point 2
  - Supporting Information
  - Supporting Information

#### III. Conclusion/Summary

- Summary of supporting information
- Conclusion reached (Restatement of premise)

#### IV. Citations

Use these instructions from the Harvard University.

### Essay Structure

Writing an academic essay means fashioning a coherent set of ideas into an argument. Because essays are essentially linear—they offer one idea at a time—they must present their ideas in the order that makes most sense to a reader. Successfully structuring an essay means attending to a reader's logic.

The focus of such an essay predicts its structure. It dictates the information readers need to know and the order in which they need to receive it. Thus your essay's structure is necessarily unique to the main claim you're making. Although there are guidelines for constructing certain classic essay types (e.g., comparative analysis), there are no set formulas.

### **Answering Questions: The Parts of an Essay**

A typical essay contains many different kinds of information, often located in specialized parts or sections. Even short essays perform several different operations: introducing the argument, analyzing data, raising counter-arguments, concluding. Introductions and conclusions have fixed places, but other parts don't. Counter-argument, for example, may appear within a paragraph, as a free-standing section, as part of the beginning, or before the ending. Background material (historical context or biographical information, a summary of relevant theory or criticism, the definition of a key term) often appears at the beginning of the essay, between the introduction and the first analytical section, but might also appear near the beginning of the specific section to which it's relevant.

It's helpful to think of the different essay sections as answering a series of questions your reader might ask when encountering your thesis. (Readers should have questions. If they don't, your thesis is most likely simply an observation of fact, not an arguable claim.)

**"What?"** The first question to anticipate from a reader is "what": What evidence shows that the phenomenon described by your thesis is true? To answer the question you must examine your evidence, thus demonstrating the truth of your claim. This "what" or "demonstration" section comes early in the essay, often directly after the introduction. Since you're essentially reporting what you've observed, this is the part you might have most to say about when you first start writing. But be forewarned: it shouldn't take up much more than a third (often much less) of your finished essay. If it does, the essay will lack balance and may read as mere summary or description.

**"How?"** A reader will also want to know whether the claims of the thesis are true in all cases. The corresponding question is "how": How does the thesis stand up to the challenge of a counter-argument? How does the introduction of new material—a new way of looking at the evidence, another set of sources—affect the claims you're making? Typically, an essay will include at least one "how" section. (Call it "complication" since you're responding to a reader's complicating questions.) This section usually comes after the "what," but keep in mind that an essay may complicate its argument several times depending on its length, and that counter-argument alone may appear just about anywhere in an essay.

**"Why?"** Your reader will also want to know what's at stake in your claim: Why does your interpretation of a phenomenon matter to anyone beside you? This question addresses the larger implications of your thesis. It allows your readers to understand your essay within a larger context. In answering "why", your essay explains its own significance. Although you might gesture at this question in your introduction, the fullest answer to it properly belongs at your essay's end. If you leave it out, your readers will experience your essay as unfinished—or, worse, as pointless or insular.

### **Mapping an Essay**

Structuring your essay according to a reader's logic means examining your thesis and anticipating what a reader needs to know, and in what sequence, in order to grasp and be convinced by your argument as it unfolds. The easiest way to do this is to map the essay's ideas via a written narrative. Such an account will give you a preliminary record of your ideas, and will allow you to remind yourself at every turn of the reader's needs in understanding your idea.

Essay maps ask you to predict where your reader will expect background information, counter-argument, close analysis of a primary source, or a turn to secondary source material. Essay maps are not concerned with paragraphs so much as with sections of an essay. They anticipate the major argumentative moves you expect your essay to make. Try making your map like this:

State your thesis in a sentence or two, then write another sentence saying why it's important to make that claim. Indicate, in other words, what a reader might learn by exploring the claim with you. Here you're anticipating your answer to the "why" question that you'll eventually flesh out in your conclusion.

\* Begin your next sentence like this: "To be convinced by my claim, the first thing a reader needs to know is . . ." Then say why that's the first thing a reader needs to know, and name one or two items of evidence you think

will make the case. This will start you off on answering the "what" question. (Alternately, you may find that the first thing your reader needs to know is some background information.)

\* Begin each of the following sentences like this: "The next thing my reader needs to know is . . ." Once again, say why, and name some evidence. Continue until you've mapped out your essay. Your map should naturally take you through some preliminary answers to the basic questions of what, how, and why. It is not a contract, though—the order in which the ideas appear is not a rigid one. Essay maps are flexible; they evolve with your ideas.

### **Signs of Trouble**

A common structural flaw in college essays is the "walk-through" (also labeled "summary" or "description"). Walk-through essays follow the structure of their sources rather than establishing their own. Such essays generally have a descriptive thesis rather than an argumentative one. Be wary of paragraph openers that lead off with "time" words ("first," "next," "after," "then") or "listing" words ("also," "another," "in addition"). Although they don't always signal trouble, these paragraph openers often indicate that an essay's thesis and structure need work: they suggest that the essay simply reproduces the chronology of the source text (in the case of time words: first this happens, then that, and afterwards another thing . . .) or simply lists example after example ("In addition, the use of color indicates another way that the painting differentiates between good and evil").

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### ***Ku skúške predložiť:***

- a) Kritický rozbor jedného článku – písomne (bod 3a)
- b) Zoznam dôkazov a ich zoradenie (bod 3)
- c) Rešerš a MESH (podľa bodu 4)
- d) Výpis literárnych odkazov z rešerše vo formáte Harvard s použitím buď Endnote alebo Mendeley (podľa bodu 5)
- e) Esej na tému využitia vedeckej metódy skúmania a legislatívnych noriem v doktorandom študovanej problematike.

Zostavené prof. MUDr. Martin Rusnák, CSc