INSTRUCTOR/FACILITATOR:

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INTRODUCTION: WHAT IS THIS COURSE?

In this course we approach the theme of “Blood” as a focus for inquiry-based learning. Why “Blood”?

- Blood is a rich area for biological inquiry. Blood flowing through the circulatory system is essential for health and alterations to blood flow and blood composition underlie many serious diseases. Blood contains multiple kinds of cells, thousands of proteins, numerous dissolved gases, and a plethora of metabolites and hormones. Blood can transmit infectious disease. Blood transfusion can restore health and save lives. The preservation of blood components for later transfusion is limited by storage lesions.
- Blood can be approached from many other perspectives in addition to the strictly biological: clinical; social; personal; ethical; cultural; political; economic; and in terms of broad health policy.
- My area of research expertise involves blood (specifically plasma and plasma proteins and to a lesser extent red blood cells) and I have been a member of the staff of Canada’s national blood transfusion service since 1989. I’ve been part of the Faculty of McMaster University since 1992 and part of the management team at Canadian Blood Services since 2007. I can use my expertise and experience to guide and assist your inquiry, encouraging you to choose to focus on aspects of blood that interest you.

Possible topics for discussion and exploration could include (but are not limited to):

- The composition and function of blood (including types of blood cells, plasma and plasma proteins, hemostasis, host defense, hematopoesis, stem cells and bone marrow, menstruation, cord blood);
- Diseases of the blood (including anemia, thalassemia, sickle cell disease, hemophilia, immunodeficiency, thrombosis, blood-borne infectious diseases, lymphomas, leukemias);
- Blood groups (including their genetic basis and role in selecting compatible blood for transfusion);
- Blood products and their clinical uses;
- The blood system in Canada;
- Screening donors and blood donations;
- Historical perspectives on blood and blood transfusion;
- Ethics, policy-making, and risk management in the blood system;
- Personal, political, cultural, religious and social meanings of blood.

LEARNING OBJECTIVES:

- To provide you with an opportunity to explore the place of blood in the health sciences and society;
- To provide practice in the art of finding and assessing information and recognizing its limitations;
- To provide an opportunity to work responsibly in a group;
- To develop your inquiry skills with respect to problem solving and professional communication;
- To maintain or acquire confidence and skill in oral and written presentation.
The grading scheme for the course, and information as to how you will be evaluated, is shown below:

<table>
<thead>
<tr>
<th>Component</th>
<th>Nature</th>
<th>Comments</th>
<th>Weight</th>
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<tbody>
<tr>
<td>Policy, ethics, screening, and risk in the blood system</td>
<td>Peer teaching group project (4 persons, same group)</td>
<td>You will select a topic inspired by one half of the Canadian Blood Services (CBS) Record of Donation (ROD; Questions 15-30) (Project 1) to research, teach the class about with informal weekly updates, and contribute to a shared collaborative resource (format to be determined by the class).</td>
<td>25%</td>
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<tr>
<td>Physiological and clinical aspects of blood</td>
<td>Group project (4 persons)</td>
<td>You will select a topic inspired by the other half of the CBS ROD (Questions 1-14) (Project 2) to research, make a presentation about, and prepare a report.</td>
<td>25%</td>
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<tr>
<td>Reflections on the social and cultural meanings of blood</td>
<td>Individual project</td>
<td>You will select something about your personal perspective on “blood” and why you chose it in a ~500 word autobiographical narrative (ungraded, but feedback provided. You will submit a one paragraph proposal about the nature of a final creative piece to be completed by the end of the semester. The format of the final piece is negotiable (essay, art piece with description, portfolio, journal, short story). The proposal allows us to discuss and come to agreement on your idea.</td>
<td>20%</td>
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<tr>
<td>6Ps Portfolio</td>
<td>Individual project</td>
<td>The 6Ps are: <strong>Personal</strong> awareness; <strong>problem</strong> identification; <strong>problem</strong> solving; <strong>professional</strong> communication; <strong>peer</strong> collaboration; and <strong>personal</strong> and peer evaluation. All activities in 3E03 will give you an opportunity to develop these skills. You will prepare a learning contract for the course specifying 2-4 personal goals linked to one or more of the 6Ps, and generate a portfolio that tracks and assesses your progress towards the goals of the contract. The format of both the contract and the portfolio are up to you and will be discussed with you at an individual meeting with me in January. One-third of your grade in this area (i.e. 10% of the total) will come from my assessment of the quality the feedback you provide to your group members.</td>
<td>30%</td>
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**DEADLINES**

Course components will be due on the dates listed below. These dates are also integrated into the Course Schedule on Page 3 of this Outline.

<table>
<thead>
<tr>
<th>Date</th>
<th>Assignment Due</th>
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<tbody>
<tr>
<td>January 19</td>
<td>Assignment Due: Initial Autobiographical Narrative (submit on LearnLink)</td>
</tr>
<tr>
<td>February 27</td>
<td>Assignment Due: Proposal (paragraph) on reflective piece (submit on LearnLink)</td>
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</table>
| March 1             | Assignment Due: Collaborative Shared Resource (Project 1) (submit on LearnLink)  
                      Assignment Due: Provide feedback to Group Members on Project 1 (submit on LearnLink) |
| March 28 or April 4 | Group Presentations on Project 2 (in class time, three on March 28 and two on April 4) |
| April 12            | Assignment Due: Final Report on Group Project 2 and Feedback to Group Members |
| April 18            | Assignment Due: Final Individual Reflection (submit on LearnLink or to Dr. Sheffield in HSC 4N66 as appropriate) |
## COURSE SCHEDULE

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Activities</th>
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| 1    | January 10 | • Introductions, course overview, formation of groups  
• Class input to format of shared collaborative resource  
• Initial brainstorming of ideas for peer teaching by groups |
| 2    | January 17 | • LECTURE: (Dr. Sheffield) “Products and Patients” - A CBS training module used to emphasize the link between product quality and patient outcomes  
• Discuss initial “autobiographical narrative” task, expectations around citation practices, peer teaching commitments |
|      | January 19 | Assignment Due: Initial Autobiographical Narrative (submit on LearnLink)                                                                  |
| 3    | January 24 | • FACILITATED DISCUSSION: (Dr. Sheffield) – Reflections on blood from Laurence Hill, CBS Massey Lecturer and author of “Blood: The Stuff of Life”  
• Peer-teaching updates (5) |
| 4    | January 31 | • GUEST SPEAKERS: Jonida Haxhirexha (CBS) + CBS blood recipient speaker (TBA)  
• Peer-teaching updates (5) |
| 5    | February 7 | • LECTURE: (Dr. Sheffield) “Uses and Abuses of Blood Plasma”  
• Peer-teaching updates (5) |
| 6    | February 14| • GUEST SPEAKER: Dr. Donald Arnold, MD, FRCP(C), Director, McMaster Centre for Transfusion Research, on the history of blood transfusion  
• Final Peer-teaching updates (5)  
• Group consultations to discuss next project topics |
| 7    | February 21| Reading Week – No class.                                                                                                                  |
| 8    | February 27| Assignment Due: Proposal (paragraph) on reflective piece (submit on LearnLink)                                                           |
| 9    | March 1    | Assignment Due: Collaborative Shared Resource (Project 1) (submit on LearnLink)  
Assignment Due: Provide feedback to Group Members on Project 1 (submit on LearnLink) |
| 10   | March 7    | • Working time – group consultations                                                                                                           |
| 11   | March 14   | • Working time – group consultations  
• Informal group progress reports (5)                                                                                                           |
| 12   | March 21   | • Working time – group consultations                                                                                                           |
| 13   | March 28   | • Group Presentations on Project 2 (3)                                                                                                        |
| 14   | April 4    | • Group Presentations on Project 2 (2)  
• Course evaluations, feedback, discussion                                                                                                       |
| 15   | April 9-18 | Final interviews                                                                                                                            |
| 16   | April 12   | Assignment Due: Final Report on Group Project 2 and Feedback to Group Members                                                                |
| 17   | April 18   | Assignment Due: Final Individual Reflection (submit on LearnLink or to Dr. Sheffield in HSC 4N66 as appropriate)                              |
RESOURCES

This is an inquiry course, so there are no required resources. If you have not already done so, please use the Resource Guide on the Health Sciences Library website that has been specifically designed for the BHSc program at http://hslmcmaster.libguides.com/c.php?g=548781&p=4448445. This will help you to meet my expectations that you will seek out the information that is pertinent to your investigations, subject it to critical scrutiny, and use it appropriately to inform your work.

Mr. Lawrence Hill is a Canadian author and former journalist at the Winnipeg Free Press and The Globe and Mail, and CBC’s Massey Lecturer of 2013. He lives in Hamilton. Among other works he is the author of “Blood: The Stuff of Life”. Mr. Hill was a guest speaker in this course in academic 2016-17 but is unfortunately unavailable this semester. We will consider some of Mr. Hill’s insights on January 24. In preparation for that discussion, before the class on January 24, you will be expected to listen to excerpts of his 5 Massey lectures, each no longer than 3 minutes in length, at http://www.cbc.ca/radio/ideas/the-2013-cbc-massey-lectures-blood-the-stuff-of-life-1.2913671. You may access these short audio recordings at no charge.

RELEVANT POLICIES AND STATEMENTS

Academic Integrity
Academic integrity is a cornerstone of good scholarship. As academics, we should take credit only for ideas and scholarly output that we have created ourselves. Ideas of others that we have incorporated into a new work of synthesis or discovery must be credited to their originators. Students and Faculty at McMaster must comply with the University policy on Academic Integrity, which can be found at https://www.mcmaster.ca/policy/Students-AcademicStudies/AcademicIntegrity.pdf. It is your responsibility to understand what constitutes academic dishonesty and comply with this policy.

I have served as a Faculty Adjudicator (Health Sciences) for Academic Integrity for both undergraduate and graduate students and I can personally attest to how seriously the University takes academic dishonesty. I’ve had the experience of exonerating students when I did not find evidence to support the charges against them, and I have also had to impose penalties upon students who clearly committed academic offenses described in the Policy. Academic dishonesty includes plagiarism (submitting work that is not one’s own), cheating by using unauthorized aids in examinations, undermining the examination process by inappropriately sharing exam questions, collaborating inappropriately (e.g. using another student’s submissions from last year’s course as your own in this year’s course), sabotaging other students or attempting to create a disadvantage for them, and improper collusion (e.g. submitting positive peer evaluations of each other irrespective of the quality of the work).

The most common offense is plagiarism. Plagiarism is defined in part in the Policy as the submission of “academic work that has been, entirely or in part, copied from or written by another person without proper acknowledgement or for which previous credit has been obtained”. If you incorporate the ideas and/or data from a source into your presentation or essay, you have to cite the source. If you incorporate the exact words of an author (usually more than 5 consecutive words) you have to use quotation marks or other formatting to communicate this to the reader. We will have a discussion of appropriate citation and quotation practices early in the course to make absolutely certain that we all have a shared understanding of what should and should not be done, notwithstanding our obligation to follow the Academic Integrity Policy.

Accommodation for Students with Disabilities
Students who require academic accommodations should contact Student Accessibility Services (SAS) at X28652 or sas@mcmaster.ca. The details of the University’s Policy on Academic Accommodation of Students with

**Policy on Late Submissions**

I expect you to adhere to the deadlines listed in the Course Outline so that we can remain on track and accomplish our goals for the semester. I will modify them across the board if you present me with a good reason (e.g. “Dr. Sheffield, we all face a major deadline in a required course on the same day as your 3E03 deadline.”).

The due date listed in the Course Outline means by 11:59 PM on that day unless otherwise specified. Late material will be penalized 5% per day for a maximum of 10 days. After that point, if you submit the material before April 1, 2018, I will evaluate it using no more than a 50% penalty.

For individual work, I am willing to allow each student one “flex day”, with no questions asked, for assignments. In other words, you can be up to 24 hours late on one individual assignment in the course. Group work is not eligible for this flexibility.

Students who miss deadlines for medical reasons should follow the procedures outlined at [https://www.mcmaster.ca/msaf/](https://www.mcmaster.ca/msaf/) to obtain extensions with no penalties. Please note that students who are unable to make deadlines due to religious observances should consult the relevant University policy at: [https://www.mcmaster.ca/policy/Students-AcademicStudies/AcademicAccommodation-Observances.pdf](https://www.mcmaster.ca/policy/Students-AcademicStudies/AcademicAccommodation-Observances.pdf).

**CLASSROOM POLICIES**

The classroom in which we meet, and its virtual extensions, must be positive, constructive spaces. We are all responsible for contributing to and sustaining such a constructive environment. Ideas can and should be challenged, constructively, but never in a manner that makes an individual student feel personally attacked, diminished, or isolated.

- We should be present and engaged. Please limit your use of cell phone to break times and otherwise silence ringers and notification sounds; I will do the same.
- We should show respect for one another by using preferred names and pronouns and inclusive language. If your preferred name and pronoun are not the ones listed in Mosaic, please let me know; otherwise I have no way of knowing if I am not addressing you in the way you prefer.
- It is a given that overtly racist, sexist, homophobic, ableist, or other forms of oppressive conduct will not be tolerated. Sometimes language that is more subtly discriminatory (but is in very common usage) detracts from the learning experience as well. We should avoid terms such as “crazy”, “insane”, or “lame” when we actually mean “illogical” or “unsupported by evidence” or “unreasonable” or “very poorly justified”. There is no reason to add to the challenges of those dealing with mental or physical health issues by using such terms. If we err in this way (me included) the correct course of action is to bring this lapse to the speaker’s attention in a polite and non-judgmental way.
- Vigorous discussion is welcome and intellectual disagreement is not necessarily a bad thing – provided that our classroom remains a constructive environment. As your facilitator it will be my responsibility to manage our classroom and the course in a balanced and ethical way mindful of all of the above points.