Introduction to Natural Language Processing
CMSC 416, 3 Credits, Spring 2022

Instructor: Dr. Bridget McInnes
Office: West 435
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Office hours: Tues/Thur 15:30-16:30 (3:30-4:30pm)
Class: Tues/Thur 14:00-15:15 (2-3:15pm)

Location: East 4229

Course Description: Semester course; 3 lecture hours; 3 credits. Rule-based and statistical methods for creating computer programs that analyze, generate, and understand human language.

References: None Listed
Course Web Site: http://blackboard.vcu.edu
Category: This is not a required course in the curriculum

Textbook: Speech and Language Processing by Jurafsky and Martin (2nd edition).

Course Objectives:

- A student who successfully completes this class will:
    - Learn methods for processing human language (knowledge of core methods).
    - Understand when and how to apply these methods to lexical, syntactic, and semantic levels of processing (understanding of key issues).
    - Apply this knowledge to real-world problems in NLP (proficiency in applying knowledge).

Grade Distribution:

Programming Assignments:	60%
Video Lecture Reports:	20%
Paper Writeups :	20%

Letter Grade Distribution:

>= 90.00	A
89.99 - 80.00	B
79.99 - 70.00	C
69.99 - 60.00	D
<= 59.99	F

Student responsibilities
(source: One VCU: Responsible Together available at: https://together.vcu.edu/students/)

When we return, things will look and feel different as we take necessary steps to protect the well-being of our community. Here is what is expected of you:

1. **Monitor your health** daily. Testing will occur according to protocols.
2. **Wear a face covering or mask** in common areas, including class.

3. **Apply physical distance** guidelines to all settings.
4. **Clean and disinfect** personal and shared spaces before and after use. Cleaning supplies will be available in numerous locations.
5. **Report symptoms** associated with COVID-19 to VCU Student Health Services. A call center hotline will be available later in the summer.
6. **Not sharing is caring** during this unique pandemic. Please do not share calculators, tools, lab supplies, etc.

Following rules regarding face coverings or masks, cleaning and disinfecting, and physical distancing is required. Students will receive reminders for daily health monitoring. Staff in the Dean of Students office will be notified after incidents of non-compliance. Refusal to comply with rules can include progressive disciplinary action up to and including suspension, based on the **VCU Student Code of Conduct**.

Requesting accommodations
(from One VCU: Responsible Together)
The university recognizes that some students who previously did not need Section 504 Academic Accommodations, and who have a qualifying condition or disability, may need support or assistance during the return to campus process. A modified approach for the temporary and more permanent need for accommodation has been developed and implemented to provide students with full access to programs and activities related to their academic majors. Because every case is different, student requests are evaluated on a case-by-case basis. Please share your need for an accommodation with the Student Accessibility and Education Office, or for MCV Campus students, the Division for Academic Success, after you have worked directly with your faculty member.

Health and well-being
(from One VCU: Responsible Together)
Navigating the anticipated stressors of daily life can often be challenging enough. When unexpected stressors emerge or when we are faced with uncertainty, it can be tough to know how to cope. Try out some of these tips and resources for health and wellness to see if they are a right fit for you.

Symptoms or Diagnosis: If an on-campus student identifies symptoms, has tested positive for COVID-19 or has come into contact with someone diagnosed with COVID-19, that student should contact University Student Health Services. At that point, isolation should begin and contact tracing will be performed by Student Health Services. Symptoms will be monitored and the student should refer to a medical provider if symptoms worsen or be released from isolation after 14 days, if symptom-free.

Nondiscrimination policy
(from One VCU: Responsible Together)
VCU is committed to providing a safe, equitable and inclusive environment for all its employees, patients and students. Discrimination or discriminatory harassment is not only unlawful, it is harmful to the well-being of our university community. Our university's core values, specifically those related to diversity and inclusion, have withstood many difficult situations and trying times, and they will not falter now.

Reports of discrimination, bullying, harassment and/or stereotyping of persons of color or those impacted by COVID-19 or otherwise, will not be tolerated. Be assured that VCU will make every effort to address and prevent the occurrence of unlawful discrimination and, if necessary, take prompt and appropriate action to remedy and prevent its reoccurrence. Every member of our community is asked to:

● Become familiar with the university's policies on Preventing and Responding to Discrimination and Duty to Report and Protection from Retaliation in the VCU Policy Library.

- Consult with Equity and Access Services or VCU Human Resources for additional guidance on how to file a report of discrimination.
- Contact the Office of Institutional Equity, Effectiveness and Success (IES) on how to address and maintain a culture of inclusion.
- Encourage individuals who may need an ADA accommodation for a known or newly acquired disability, to contact the ADA/504 Coordinator in ADA Services.
- Bookmark and share information on university or community agencies that offer support or services, such as VCU's Counseling Services or Ombudsperson.
- Explore training and educational opportunities on diversity and inclusion at IExcel Education and through the Office of Institutional Equity, Effectiveness and Success.
- Offer nonjudgmental support and empathy to those affected by current events and this health crisis.

Sample inclusive statement from instructor
I want you to know that I am grateful for your presence and input in our classrooms (whether in person or online). I appreciate and welcome you regardless of your immigration status, country of origin and/or citizenship, race, ethnicity, religious affiliation, gender/sex, gender identity, sexual orientation, age, or dis/ability. Thank you for enriching our world, sharing your vital experience, and contributing to the diversity that makes our intellectual community vibrant and evermore creative.

Tips for Success:

- When taking online and hybrid courses, your self-motivation and self-pacing are absolutely critical. For this course, you should plan to work about 7-9 hours per course module as we move through the materials. Be sure to plan your time accordingly.
- Make yourself a calendar with all of your due dates across ALL of your courses. Plan for when you will work on each one for completion in advance of the due dates.
- Make sure you note any "online" course that still have a required meeting time (such as a Google Meet or Zoom session).
- Avoid the common assumption that online courses are easier or should be easier. **That is a MYTH!!**
- **Plan Ahead!!** Study as you go instead of at the last minute!

Where to post questions

Questions of general interest should first be posted to the discussion board (only if they have not already been answered) so that other students can benefit from the response or have an opportunity to respond to your question. Only questions of a private nature should be communicated to me through email. When sending a message to me, please *allow a minimum of 24 hours for a response*. Most of the time I will respond much faster, but sometimes meetings and other courses take over my schedule.

Netiquette Guidelines
Netiquette is a set of rules for behaving properly online. Your instructor and fellow students wish to foster a safe online learning environment. All opinions and experiences, no matter how different or controversial they may be perceived, must be respected in the tolerant spirit of academic discourse. You are encouraged to comment, question, or critique an idea but you are not to attack an individual. Working as a community of learners, we can build a polite and respectful course community. The following netiquette tips will enhance the learning experience for everyone in the course:
● Do not dominate any discussion.

- Give other students the opportunity to join in the discussion.
- Do not use offensive language. Present ideas appropriately.
- Be cautious in using Internet language. For example, do not capitalize all letters since this suggests shouting.
- Popular emoticons such as ☺ can be helpful to convey your tone but do not overdo or overuse them.
- Never make fun of someone's ability to read or write.
- Share tips with other students.
- Keep an "open-mind" and be willing to express even your academically informed opinion.
- Think and edit before you push the "Send" button.
- Do not hesitate to ask for feedback.
- Using humor is acceptable

(adapted from UWSP)

Be Proactive in Communication with Instructor

If you find that you have any trouble keeping up with assignments or other aspects of the course, make sure you let your instructor know as early as possible. As you will find, building rapport and effective relationships are key to becoming an effective professional. Make sure that you are proactive in informing your instructor when difficulties arise during the semester so that we can help you find a solution.

(adapted from UWSP)

VCU Honor System

VCU recognizes that honesty, truth, and integrity are values central to its mission to advance knowledge and student success both in the world VCU students will enter, or return to, once they have graduated and in the university community as a microcosm of that world. In a community devoted to learning, a foundation of honor must exist if that community is to thrive with respect and harmony. Therefore, all members of the university community must conduct themselves in accordance with the highest standards of academic honesty, ethics, and integrity at all times.(from https://conduct.students.vcu.edu/vcu-honor-system/)

Technology Support

Engineering & VCU Resources:

- **Personal Computer Requirement**: For our current system requirements and recommendations, see: https://egr.vcu.edu/admissions/accepted/computer-recommendations/
- **Remote Access to Public Lab computers**: To provide remote access, we use the Citrix App2Go environment to provide full and exclusive control over "the next available" computer in the lab. See this link for more details: https://wiki.vcu.edu/x/Oa0tBg
- **VCU provides a lot of software available for students to download to their personal computers.** For a list of software and the specifics for each, see: https://ts.vcu.edu/software-center/. In particular, Microsoft Office is available free to students.
- **VCU is transitioning to Canvas.** See the Canvas Student Guide at this link: https://community.canvaslms.com/t5/Student-Guide/tkb-p/student
- **For IT help in the College of Engineering**, see our Wikipedia for "student" help at: https://wiki.vcu.edu/display/EGRITHELP
- **VCU's Technology Services (TS) provides support for "central IT" services**. If you have a technical issue with any of the following services, please submit a ticket with VCU Technology Services at https://itsupport.vcu.edu/ or call (804) 828-2227. VCU TS maintains and supports these services and will be able to provide assistance to you.
  - VCU Cisco VPN
  - 2Factor or Dual Authentication (DUO)
  - Blackboard/Canvas
  - Gmail or other Google Apps
  - Zoom videoconferencing
  - VCU App2Go (Application server)
  - Resetting VCU password

- **For IT issues related to College of Engineering teaching and research, email** egrfixit@vcu.edu
- **For loaner Chromebooks for emergency purposes:** See this link for more details: https://vcutsmpc.getconnect2.com/