

**MVLA  
2019-20  
COURSE INFORMATION SHEET**

**Course Title:** Advanced Computer Science (BC1019)

**School:** MVHS

**UC/CSU requirement:** G Elective - 1 year required; honors credit

**Textbook and/or other learning resources:**

Armstrong, Stacey. A+ Advanced Computer Science,. <http://apluscompsci.com>, 2016

Morin, Pat, Open Data Structures: An Introduction (Java), au Press, Athabasca University, 2013.

**Student Learning Outcomes:**

Advanced Computer Science aims to be a course where students can expand further on their programming knowledge post AP Computer Science. This course will have an emphasis on data structures and their applications. Students will learn and apply such topics as generics, collections, lists, linked lists, queues, stacks, maps, hashtable, hashmap, heaps, and trees. Students will study and evaluate their design, do performance analysis (Big-O), and analyze optimal implementation given various scenarios of data processing. In addition, students will explore concepts towards search, sorting, file i/o, networking, and multithreading.

**Assessment and Grading ([BP 5121](#) / [AR 5121](#)):** To ensure that every student has an equal opportunity to demonstrate their learning, the course instructors implement aligned grading practices and common assessments with the same frequency.

1. Grading categories and their percentage weights:

1st Semester  
Exams – 35%  
Classwork and Homework – 15%  
Quizzes – 20%  
Final Project – 15%  
Final Exam - 15%

2nd Semester  
Exams – 35%  
Classwork and Homework – 15%  
Quizzes – 20%  
Final Project - 30%

2. Achievement evidence collected within each grading category:

- Final Exam: There will be a cumulative semester 1 Final Exam. It will build on cumulative concepts students have mastered for that semester. The 1st semester final exam makes up 15% of the overall grade.
- Final Project: There is a final project for each semester. They will build on cumulative concepts students have mastered. The 1st semester final project makes up 15% of the overall grade. The 2nd semester final project makes up 30% of the overall grade.
- Exams: There are four cumulative tests that are of equal weight. One is given each quarter. They will build on cumulative concepts students have mastered. They are equal weight making up 35% of the overall grade
- Quizzes: Quizzes are given on a weekly basis. They will build on cumulative concepts students have mastered for that week. They are equal weight making up 20% of the overall grade.
- Homework/Classwork: They are assigned regularly through labs, logs, and various activities. They are all equal weight making up 15% of the overall grade.

3. Grading scales:

90-100%	A
80-89.99%	B
70-79.99%	C
60-69.99%	D
50-59.99%	F

4. Homework/outside of class practices ([BP 6154](#)):

Homework is given regularly to reinforce and apply concepts learned in class through labs, logs, and various activities. They are tied directly into classroom instruction and support student comprehension of learned skills. All work must be completed by the due date and time in order to be graded for full credit.

5. Excused absence make up practices ([Education Code 48205\(b\)](#)):

Students must notify and work out a schedule prior to the due date or upon returning from an excused absence with their teacher to make up any work, quizzes, and exams beyond the due date.

6. Academic integrity violation practices ([MVHS Academic Integrity Policy](#)):

The Board expects that students will not cheat, lie, plagiarize or commit other acts of academic dishonesty. Examples of cheating include: anyone who copies another's work or turns in someone else's ideas as his or her own, collaboration with another student or students could be considered cheating if students are expected to complete an assignment independently, copying homework, allowing someone else to copy your work, plagiarism, copying or allowing others to copy from another's exam, improperly obtaining and/or using tests, questions, or answer keys, using unauthorized notes/materials or electronic equipment (calculators, cell phones, etc.), with greater access to the Internet and electronic sources, students need to be very clear about their responsibilities in using these tools with integrity. Check with your teachers if you are unsure or unclear about his/her expectations regarding the use of the Internet.

7. Late work practices:

All work must be completed by the due date and time in order to be graded for full credit. Unexcused late work will receive a maximum grade of 90%. Unexcused late work not turned in after one school week of the due date will not be accepted. Revisions and retakes are encouraged for most assignments. Students will be notified in advance of assignments that are not eligible for revision. Criteria and due dates for revisions will be dependent on course types. All late work submission will require a personal email informing the teacher.

8. Revision practices:

Most revisions must be completed within one week, and are allowed only once. The maximum grade a student can receive is a 90% for any revisions or retakes. Students will have only one week from the time the grade is posted to revise their work. All revision submission will require a personal email informing the teacher.

9. Extra credit practices:

There is no extra credit in this course.

10. Additional grading practices:  
None

**Instructors' email addresses:**

[Ly.Nguyen@mvla.net](mailto:Ly.Nguyen@mvla.net)

**Additional information:**

Students are to be respectful to everyone including themselves. Students are expected to be focused and on task at all times.

Computer use is for class related activities only, and must in line with the MVLA Digital Device and Behavior Policies of the Parent/Student Handbook. All other electronics are to be silenced and stored out of sight.

Food and drinks are to be put away at all times in the lab except for water.