## Anthropology/Biology 3138: 2019 Introduction to DNA Molecular Methods

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**Time & Place**: Lecture/Laboratory Fridays 1:30 pm – 5:30 pm CB3012 **Marks & Grading:** Lab Reports- 50% (5 laboratory write ups worth 10% each)

> Midterm Exam- 15% Final Exam- 20% Assignment- 15%

## **Schedule:**

**September 6**: Lecture 1 Basic Techniques

**September 13**: Lecture 2 The Nature of DNA

Laboratory 1 Laboratory Safety/ Basic Lab Techniques

**September 20**: Lecture 3 Extraction Chemistry and Techniques

Laboratory 2 The Nature of DNA

**September 27:** Lecture 4 Purification Chemistry

Laboratory 3 Extraction Methodologies

October 4: Laboratory 3 Extraction Methodologies

October 11: Lecture 5 Polymerase Chain Reaction

October 18: Mid-Semester Study Break

October 25: Midterm

**November 1:** Lecture 6 Electrophoresis

Laboratory 4 PCR Amplification

**November 8**: Lecture 7 DNA Detection and Quantification

Laboratory 4 PCR Amplification

November 15: Lecture 8 DNA Sequencing

Laboratory 5 DNA Sequence Analysis

November 22: Lecture 9 DNA Data Analysis

Laboratory 5 DNA Sequence Analysis

**November 29**: Lecture 10 Various Other Techniques and Exam Review

Laboratory 5 Sequencing Alignment