



Dominican International School
台北市私立道明外僑學校
No. 76, Dazhi Street, Taipei (104042), Taiwan, R.O.C.
10464 臺北市中山區大直街 76 號



COURSE SYLLABUS

| | |
|--------------------|--------------------------|
| School Year | 2025-2026 |
| Subject | Research Method |
| Grade Level | 11 |
| Teacher | Leon Henrico |
| Email | lhenrico@dishs.tp.edu.tw |

COURSE DESCRIPTION:

This course provides a comprehensive introduction to the principles and practices of research methods. Adopting a hands-on approach, this course will guide students through the entire research process, from formulating a research question to presenting the findings. The course will cover both quantitative and qualitative research methodologies, equipping students with the skills to design, conduct, and critically evaluate research. This course is designed to be practical and engaging, with a focus on learning by doing. Students will have the opportunity to develop their own mock research projects and gain a deeper appreciation for the endless potential of research methodologies. This course will also emphasize the importance of ethical considerations in research.

COURSE OBJECTIVES:

By the end of this course, students will be able to:

1. Understand the purpose and importance of research in various fields
2. Formulate clear and focused research questions and hypotheses appropriate for high school-level studies
3. Conduct effective literature reviews using academic databases and age-appropriate sources
4. Design appropriate research studies, including basic experimental and non-experimental approaches
5. Collect and analyze quantitative data using fundamental statistical methods
6. Interpret and present research findings in a clear and concise manner suitable for their grade level
7. Critically evaluate published research and understand its limitations, developing critical thinking skills

PRIMARY TEXTBOOKS AND OTHER RESOURCES:

- Introduction to Research Methods (A Hands-On Approach) by Bora Pajo
- Accompanying web page: <https://edge.sagepub.com/pajo>

ADDITIONAL INFORMATION:

Please always check Google Classroom for homework and announcements.

Expectations for Student Behavior and Participation

- Attend all classes regularly and punctually
- Actively participate in class discussions and group activities, contributing thoughtful questions and insights
- Complete all assignments and projects by the due dates, managing time effectively
- Students who do not meet their homework deadlines will be placed in Project I.
- If a student has been absent when a homework assignment is set, it is his/her duty to find out what

homework is due, and complete it by the required deadline.

- If a student is absent for a test, they will receive a **0** score, unless they have a **very good** reason for being absent.
- Respect diverse opinions and perspectives during discussions, practicing active listening
- Maintain academic integrity in all work, avoiding plagiarism and properly citing sources
- Bring required materials to class daily (textbook, notebook, writing utensils, charged laptop/tablet)
- Engage in respectful and constructive peer feedback during workshops and presentations
- Utilize school hours for additional support when needed, taking initiative in learning
- Demonstrate growth mindset and willingness to revise work based on feedback
- Contribute to a positive classroom environment that fosters intellectual curiosity and mutual respect
- Respect your teachers, fellow students and their property.
- Keep your seating space and classroom clean and neat.
- Only a water bottle is allowed during class; no eating or drinking of other liquids.
- Ask permission to leave the class.

ADDITIONAL INFORMATION:

Please always check Google Classroom for homework and announcements.

ACADEMIC DISHONESTY:

Academic Dishonesty means employing a method or technique or engaging in conduct in an academic endeavor that contravenes the standards of ethical integrity expected at DIS.

Academic dishonesty includes but is not limited to the following:

- Purposely incorporating the ideas, words of sentences, paragraphs, or parts thereof without appropriate acknowledgment and representing the product as one's work;
- Representing another's intellectual work, such as photographs, paintings, drawings, sculpture, research, or the like, as one's own, including failure to attribute content to an AI.
- Employing a tutor, using Artificial Intelligence without acknowledgment, getting a parent to write a paper or do an assignment, and paying for an essay to be written by someone else and presented as the student's work.
- Committing any act that a reasonable person would conclude, when informed of the evidence, to be a dishonest means of obtaining or attempting to obtain credit for academic work.

Any act of academic dishonesty will result in an automatic zero on the entire assignment/learning task.

1st QUARTER – TENTATIVE COURSE CONTENT

| <i>(NB: Depending on time and interest, the teacher may delete and/or add other selections.)</i> | |
|---|---|
| Week / Date | Topic / Projects / Assessments |
| Week 1 Aug 12th to 15th <u>4 Days of Class</u> 12~ First Day/ Digital PSAT/NMSQT Registration 15~ Opening Mass & Assumption of Our Lady 8:00 | Chapter 1: The Purpose of Research (pp. 1-20) - Key concepts: scientific research, theories of knowledge - Activity: Group discussion on the importance of research in everyday life |
| Week 2 Aug 18th to 22nd 18~ Induction of Class & Student Council Officers, NJHS, DYM, and House Captains 18~ St. Dominic de Guzman Feast Day Celebration | Formulating Research Questions - Chapter 2: Formulating a Research Question (pp. 21-40) - Key concepts: constructs, variables, hypotheses - Activity: Brainstorming session to develop research questions on topics of interest to teenagers |

| | |
|---|---|
| Week 3 Aug 25th to 29th | Literature Review I - Chapter 3: Researching and Writing the Literature Review (pp. 41-60) - Key concepts: database searching, annotated bibliographies - Activity: Guided computer lab session on using academic databases |
| Week 4 Sep 1st to 5th 5~House Ceremony | Literature Review II - Chapter 3: Researching and Writing the Literature Review (pp. 61-80) - Key concepts: organizing literature, critical thinking - Activity: Peer review of annotated bibliographies |
| Week 5 Sep 8th to 12th 8~ Mass & Birthday Mother Mary& VIP Induction | Quantitative Research Designs I - Chapter 4: Quantitative Designs (pp. 81-100) - Key concepts: exploratory, descriptive, and explanatory studies - Activity: Analyzing simple case studies to identify research designs |
| Week 6 Sep 15th to 19th 19~Athletics/Sports Orientation | Quantitative Research Designs II - Chapter 4: Quantitative Designs (pp. 101-120) - Key concepts: experimental and quasi-experimental designs - Activity: Designing a basic experiment relevant to high school students |
| Week 7 Sep 22nd to 26th 23-25~Pre-Exam Days 26~Teacher's Day Celebration & Teachers' Appreciation Initiative/Peace Pole 26~Grade 12 Career Educational Trip | Measurement and Validity - Chapter 5: Measurement Errors, Reliability, Validity (pp. 121-140) - Key concepts: reliability, validity, measurement error - Activity: Creating and evaluating simple survey questions |
| Week 8 Sep 29th to Oct 3rd <u>2 Days of Class</u> 1-2 ~Q1 Exams 3~Record Day | Quarter 1 Exam and Literature Review Assignment Due - Review session and Q&A - Exam covering Weeks 1-7 material - Submission of Literature Review assignment |
| Week 9 Oct 6th to 10th <u>No Classes</u> 6~Moon Festival 7-9~Teacher's Conference 10~Double Ten | Exams |

2nd QUARTER – TENTATIVE COURSE CONTENT

| <i>(NB: Depending on time and interest, the teacher may delete and/or add other selections.)</i> | |
|--|---|
| Week / Date | Topic / Projects / Assessments |
| Week 1 (10) Oct 13th to 17th 13~ Second Quarter Begin 13~Visit of Mother Mary to Classrooms | Sampling Techniques - Chapter 6: Sampling (pp. 141-160) - Key concepts: probability and non-probability sampling - Activity: Conducting a simple random sample of the school population |
| Week 2 (11) Oct 20th to 24th 20~ Jubilee: Marian Exhibit 24 – Book Fair | Quantitative Data Collection I - Chapter 7: Data Collection for Quantitative Research (pp. 161-180) - Key concepts: surveys, questionnaires - Activity: Developing a short questionnaire on a topic relevant to teens |

| | |
|--|---|
| Week 3 (12) Oct 27th to Oct 31st | Quantitative Data Collection II - Chapter 7: Data Collection for Quantitative Research (pp. 181-200) - Key concepts: experimental data collection, CATI - Activity: Role-playing exercise on conducting phone surveys |
| Week 4 (13) Nov 3rd to Nov 7th 3~ Feast of St. Martin de Porres Mass | Secondary Data Analysis - Chapter 8: Secondary Data (pp. 201-220) - Key concepts: advantages and disadvantages of secondary data - Activity: Exploring publicly available datasets on youth-related issues |
| Week 5 (14) Nov 10th to 14th | Data Entry and Organization I - Chapter 9: Entering and Organizing Quantitative Data (pp. 221-240) - Key concepts: data entry, coding, codebooks - Activity: Hands-on session with spreadsheet software for data entry |
| Week 6 (15) Nov 17th to 21st 21 - YSC Contest | Data Entry and Organization II - Chapter 9: Entering and Organizing Quantitative Data (pp. 241-260) - Key concepts: variable types, scales - Activity: Creating a codebook for the questionnaire developed in Week 2 |
| Week 7 (16) Nov 24th to 28th 25-27~Pre-Exam Day 28-Gr.12 Q2 Exam | Introduction to Data Analysis - Chapter 10: Analyzing Quantitative Data (pp. 261-280) - Key concepts: descriptive statistics, frequency distributions - Activity: Calculating and interpreting basic descriptive statistics |
| Week 8 (17) Dec 1st to Dec 5th 4 Days of Class 1-Gr.12 Q2 Exam 5~Christmas Fair | Correlation and Regression - Chapter 10: Analyzing Quantitative Data (pp. 281-300) - Key concepts: correlation, causation, regression - Activity: Exploring correlations between variables using real-world examples |
| Week 9 (18) Dec 8th to 12th 2 Days of Class 8~Foundation Day Mass, cake ceremony, and Class Party (half day) 11-12 ~Q2 Exams | Quarter 2 Exam and Research Proposal Assignment Due - Review session and Q&A |
| Dec 15th to Jan 2nd | Christmas Break |

3rd QUARTER – TENTATIVE COURSE CONTENT

| (NB: Depending on time and interest, the teacher may delete and/or add other selections.) | |
|--|--|
| Week / Date | Topic / Projects / Assessments |
| Week 1 (19) Jan 5th to 9th 4 Days of Class 5~Record Day 6~Third Quarter Begins 9 ~ New Year Mass | Qualitative Research Designs - Chapter 11: Qualitative Designs and Data Collection (pp. 301-320) - Key concepts: ethnography, interviews, focus groups - Activity: Designing a mini-ethnographic study of the school community |
| Week 2 (20) Jan 12th to 16th | Qualitative Data Collection - Chapter 11: Qualitative Designs and Data Collection (pp. 321-340) - Key concepts: participant observation, unobtrusive methods - Activity: Practicing interview techniques in pairs |

| | |
|---|---|
| Week 3 (21) Jan 19th to 23rd | Qualitative Data Analysis I - Chapter 12: Entering, Coding, and Analyzing Qualitative Data (pp. 341-360) - Key concepts: transcription, memoing, coding - Activity: Coding practice using sample interview transcripts |
| Week 4 (22) Jan 26th to 30th 26 ~ Feast Day of St. Thomas Aquinas 26-30~ Catholic Week Activities | Qualitative Data Analysis II - Chapter 12: Entering, Coding, and Analyzing Qualitative Data (pp. 361-380) - Key concepts: thematic analysis, pattern recognition - Activity: Identifying themes in coded data from Week 3 |
| Week 5 (23) Feb 2nd to 6th 1-4~WASC Mid-Cycle Visit | Mixed Methods Research - Review of Chapters 4 and 11 - Key concepts: combining quantitative and qualitative approaches - Activity: Designing a mixed-methods study on a school-related issue |
| Week 6 (24) Feb 9th to 13th 13~House Valentine's Mini Fair 13~ Chinese New Year Celebration | Presenting Research Results I - Chapter 13: Results and Discussion (pp. 381-400) - Key concepts: organizing findings, visual presentation - Activity: Creating effective charts and graphs to display data |
| Feb 16th to Feb 20th | Chinese New Year |
| Week 7 (25) Feb 23rd to 27th 4 Day of Class 23-26~IOWA Assessments 24-26~ Pre-Exam Days 27 ~ Memorial Day Holiday | Presenting Research Results II - Chapter 13: Results and Discussion (pp. 401-420) - Key concepts: discussion section, recommendations - Activity: Writing practice for discussion sections |
| Week 8 (26) March 2nd to 6th | Presenting to an Audience - Chapter 14: Presenting Your Research (pp. 421-440) - Key concepts: oral presentations, conference applications - Activity: Mini-presentations on research topics |
| Week 9 (27) March 9th to 13th 4 Days of Class 13&16 – Q3 Exams | Quarter 3 Exam and Data Analysis Report Assignment Due - Review session and Q&A - Exam covering Weeks 1-8 material - Submission of Data Analysis Report assignment |

4th QUARTER – TENTATIVE COURSE CONTENT

| <i>(NB: Depending on time and interest, the teacher may delete and/or add other selections.)</i> | |
|---|--|
| Week / Date | Topic / Projects / Assessments |
| Week 1 (28) Mar 16th to 20th 4 Days of Class 16 – Q3 Exams 17~ Fourth Quarter Begins 20~ House Movie Night and Club Fair 21~ Spring Fair | Research Project Workshop I - Review of research questions and designs - Activity: One-on-one consultations on project ideas |
| Week 2 (29) March 23rd to 27th | Research Project Workshop II - Data collection strategies and implementation - Activity: Peer feedback on data collection plans |

| Mar 30 th to April 6 th | Easter Break |
|---|--|
| Week 3 (30) Apr 7th to Apr10th <u>4 Days of Class</u> 8 or 9~Easter Mass | Research Project Workshop III - Data analysis techniques and interpretation - Activity: Computer lab session for data analysis |
| Week 4 (31) Apr13th to 17th | Research Project Workshop IV - Writing the results and discussion sections - Activity: Guided writing session with instructor feedback |
| Week 5 (32) Apr 20th to 24th 20-24 ~ AP Mock Exams | Research Project Workshop V - Finalizing the research paper and presentation - Activity: Creating presentation slides and practicing delivery |
| Week 6 (33) Apr 27th to May 1st <u>4 Days of Class</u> 1~ Labor Day | Peer Review Sessions - Students present draft papers for peer feedback - Activity: Structured peer review using feedback forms |
| Week 7 (34) May 4th to 8th 4-14~ Final Exams (K, 5, 8, 12 only) 4-15 ~ AP Exams | Final Presentations - Students present their research findings to the class - Activity: Q&A sessions after each presentation |
| Week 8 (35) May 11th to 15th <u>4 Days of Class</u> 13-14~ Q4 Exam 15~ Record Day 11-15 ~ AP Exams | Quarter 4 Exam and Final Research Paper Due - Review session and Q&A - Exam covering key concepts from the entire course - Submission of Final Research Paper |
| Week 9 (36) May 18th to 22nd 19-22 ~ Student Clearance 18~ Baccalaureate Mass 21~High School Field Trip | Schoolwide activities |
| Week 10 (37) May 25th to 29th <u>4 Days of Class</u> 26~House Culminating Activity 26~ Gr. 12 Graduation 27~ Class Party 28- ~ Students Last Day 29~ Teachers/Staff Meeting | Schoolwide activities |

Written Assignments:

Quarter 1:

Literature Review (Due end of Quarter 1)

Students will select a research topic of interest and write a comprehensive literature review. This assignment will require students to identify and synthesize at least 10-15 peer-reviewed articles on their chosen topic. The literature review should be well-organized, critically analyze the existing research, and identify a gap in the literature that their proposed research could address.

Quarter 2:

Written Assignment: Research Proposal (Due end of Quarter 2)

Building upon their literature review from Quarter 1, students will develop a detailed research proposal. The proposal should include a clear research question, a well-defined methodology (including research design, sampling strategy,

and data collection plan), and a discussion of potential ethical considerations. The proposal should also outline the expected outcomes and the significance of the proposed research..

Quarter 3:

Data Analysis Report (Due end of Quarter 3)

Students will be provided with a dataset (either quantitative or qualitative) and will be required to analyze the data using appropriate techniques. They will then write a formal data analysis report that includes a description of the data, the methods used for analysis, a summary of the findings, and a discussion of the implications of the results.

Quarter 4:

Final Research Paper

Students will complete a full research paper based on the research proposal they developed in Quarter 2. This paper will include an introduction, literature review, methodology, results, discussion, and conclusion. Students will be expected to collect and analyze their own data (or use a provided dataset) and present their findings in a clear and professional manner.