**AVTE 2025** 

# AI Tools

The Assistant You Always Wanted



# Presenters



Jen Serling



**Mary Beth McKee** 

# Today's Agenda

- Tools to Try
- Chat GPT
- Google Notebook LM
- Copilot
- Adobe FireFly
- Zoom AI

## Don't be afraid of AI



## **Chat GPT & Prompts**

- Prompts matter!
- Chat GPT is a conversation not a one shot deal.
- Al learns from us!
- Need help writing Student Learning Outcomes or creating a syllabus for a new class?
- Al can be that writing partner 24/7
   Writing is a process!

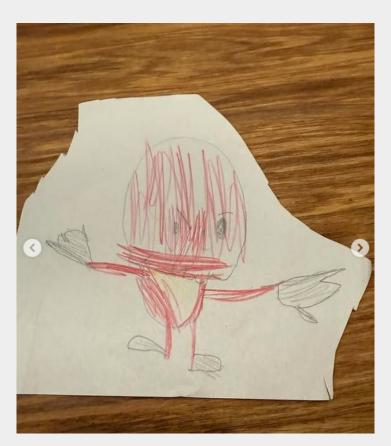
### A Dad & Chat GPT

#### **Prompt**

Take this drawing created by my child and transform it into a photorealistic image or realistic 3D render. I don't know what it's supposed to be — it could be a creature, object, or something completely from their imagination. Keep the original shape, proportions, line lengths, and all imperfections exactly as they are in the drawing — including any slanted eyes, uneven lines, or strange markings. Do not correct, smooth out, or change any details of their design.

Make it look like this thing exists in the real world, with realistic textures (skin, fur, metal, etc.) and natural lighting. You can add realistic shadows and an environment or background that fits the feel of the drawing, but don't change anything about the form or details of what they created. No pencil crayon textures or hand-drawn styles — this must look like a photo or CGI render, but staying true to their imagination.

## A Dad & Chat GPT





## A Dad & Chat GPT





# Sample Learning Objectives

- Course: Veterinary Clinical Pathology
- Parasitology, Cytology, Microbiology and Immunology

Clin Path Example

### Prompt:

write learning objectives that meet CVTEA standards for a veterinary technology course on Clinical Pathology

## Results

Here are course-level learning objectives for a Veterinary Technology Clinical Pathology course, written to align with CVTEA (Committee on Veterinary Technician Education and Activities)

Accreditation Standards, particularly Standard 9 (Curriculum) and the Essential Skills List:

#### **Course Title: Clinical Pathology**

#### **Course Description:**

This course introduces the theory and practical application of clinical diagnostic techniques including hematology, urinalysis, cytology, and clinical chemistry in veterinary species. Students will learn to collect, handle, analyze, and interpret laboratory specimens.

## Result

#### **Learning Objectives**

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

- 1. Demonstrate proper sample collection and handling techniques for blood, urine, feces, and cytology specimens, ensuring specimen integrity and accuracy of results.
- 2. Perform complete blood counts (CBCs) using manual and automated methods, including hemoglobin determination, hematocrit/PCV, total protein, red and white blood cell counts, and platelet estimates.
- 3. Differentiate normal and abnormal cellular morphology in blood smears across common domestic species and identify common hematologic parasites.
- 4. Interpret hematologic data to identify physiological and pathological conditions (e.g., anemia, leukocytosis, infection, inflammation).
- 5. Conduct and interpret urinalysis, including physical, chemical, and microscopic examination, and explain the clinical relevance of findings.
- 6. Identify and describe common cytologic preparations (e.g., lymph node aspirates, ear swabs, vaginal cytology), including distinguishing inflammatory vs. neoplastic processes.
- 7. **Perform clinical chemistry tests** (manual or automated) and explain the significance of abnormal results related to organ system function (e.g., liver, kidney, pancreas).
- **8. Apply appropriate quality control procedures** and demonstrate proper operation and maintenance of laboratory equipment (e.g., centrifuge, refractometer, chemistry analyzer).
- 9. Demonstrate appropriate safety, sanitation, and biohazard protocols in the clinical laboratory setting in compliance with OSHA and laboratory best practices.
- 10. Accurately document and communicate laboratory findings using professional terminology and formats suitable for inclusion in the veterinary medical record.

## One step further...

### **Curriculum Mapping**

map to essential skills list

Here is a mapping of the Clinical Pathology course learning objectives to the CVTEA Essential Skills List, which is required for accreditation and competency assurance in Veterinary Technology programs.

The CVTEA Essential Skills List divides skills into categories, including Clinical Pathology, and identifies them as either:

- "Perform" The student must physically perform the task.
- "Understand" The student must demonstrate comprehension.

#### Course: Clinical Pathology

Mapped to CVTEA Essential Skills - Clinical Pathology Section

Learning Objective	Mapped Essential Skill	Skill Type
Demonstrate proper sample collection and handling techniques for blood, urine, feces, and cytology specimens	Collect, prepare, and evaluate cytology samples (ear, blood, vaginal, fine needle aspirate)	Perform
	Collect appropriate samples for laboratory analysis	Perform
	Handle and store samples for laboratory analysis	Perform
Perform complete blood counts (CBCs) using manual and automated methods	Perform a complete blood count (manual and automated)	Perform
	Use and maintain hematology analyzers	Perform
Differentiate normal and abnormal cellular morphology in blood smears and identify blood parasites	Prepare and evaluate a blood wear	Perform

# Because I would rather drink wine than write a lab assignment....

write a lab assignment based on learning objective 3

Here is a veterinary technology Clinical Pathology lab assignment based on Learning Objective 3:

#### Lab Assignment: Blood Smear Preparation & Morphology Identification

Course: Clinical Pathology

Lab Week: [Insert Week Number]

Learning Objective 3:

Differentiate normal and abnormal cellular morphology in blood smears across common domestic species and identify common hematologic parasites.

#### Purpose:

To gain hands-on experience preparing, staining, and evaluating peripheral blood smears from domestic animals. You will learn to recognize and differentiate rmal and abnormal blood cell morphology and identify possible blood parasites.

### **Estimated Time saved..3 hours...**

#### Skills Practiced:

- · Preparing quality blood smears
- · Properly staining blood smears using a Romanowsky-type stain (e.g., Wright-Giemsa, Diff-Quik)
- Microscopically identifying erythrocytes, leukocytes, and platelets
- Evaluating cellular morphology and identifying common abnormalities (e.g., anisocytosis, poikilocytosis, toxic neutrophils)
- Recognizing blood parasites (e.g., Babesia, Mycoplasma, Dirofilaria)

#### Materials Needed:

- Fresh anticoagulated blood samples (EDTA) from canine and feline patients
- Glass slides
- Microscope
- Diff-Quik or Wright-Giemsa staining kit
- Immersion oil
- · Gloves and lab coat



· Blood smear evaluation checklist

#### Skills Practiced:

- Preparing quality blood smears
- Properly staining blood smears using a Romanowsky-type stain (e.g., Wright-Giemsa, Diff-Quik)
- · Microscopically identifying erythrocytes, leukocytes, and platelets
- Evaluating cellular morphology and identifying common abnormalities (e.g., anisocytosis, poikilocytosis, toxic neutrophils)
- Recognizing blood parasites (e.g., Babesia, Mycoplasma, Dirofilaria)

#### Materials Needed:

- Fresh anticoagulated blood samples (EDTA) from canine and feline patients
- Glass slides
- Microscope
- Diff-Quik or Wright-Giemsa staining kit
- Immersion oil
- · Gloves and lab coat



Blood smear evaluation checklist

Grading Criteria (25 points total):		
Criteria	Points	
Quality of blood smear technique	5	
Accuracy of staining and slide labeling	5	
Identification of cell types and morphology	8	
Documentation and completeness of worksheet	5	
Professionalism and lab safety adherence	2	

### I would marry ChatGPT...

#### Reflection Questions:

- 1. What abnormalities did you observe in your smears, if any?
- 2. How might changes in WBC morphology indicate infection or inflammation?
- 3. What steps would you take if you saw a suspected blood parasite on a clinical patient's smear?



Would you like a **printable version** or this formatted for a **Canvas upload or LMS system**?















## **Notebook LM**

- Al for research
- Study Guides with quiz questions
- Audio Overviews auto generated



### Chat GPT vs Notebook LM

- Notebook LM focuses on the sources you upload
- Takes a little more time to generate
- Limits on file types you can upload
  - Google Docs & Google Slides
  - PDF, Text and Markdown files.
  - Web URLs
  - Copy-pasted text
  - YouTube URLs of public videos w/ transcripts
  - Audio files

### **Notebook LM Demo**

https://notebooklm.google.com/

### **Microsoft CoPilot**

- Offers AI chat
- Can draft documents, summarize information, generate images, and even transform handwritten notes into digital documents.
- Can help with data analysis in Excel, creating charts, identifying trends, and summarizing information

## **Adobe Firefly**

- Firefly uses generative AI to create new content based on user input, such as text descriptions or existing images
- Great tool if schools offer Adobe products
- <u>Link</u>
- Demo



### **Zoom AI**

 Generates automated summaries of meetings, capturing key points, action items, and decisions.

Thread Summary: Summarizes chat threads,
 allowing users to quickly catch up on conversations

## **Other Free Teaching Tools**

- Magic School
- Kahnmingo
- Canva Magic Studio
- Curipod
- Diffit
- Al Blaze
- And yes.....ChatGPT



# **Any Questions?**

Resources

