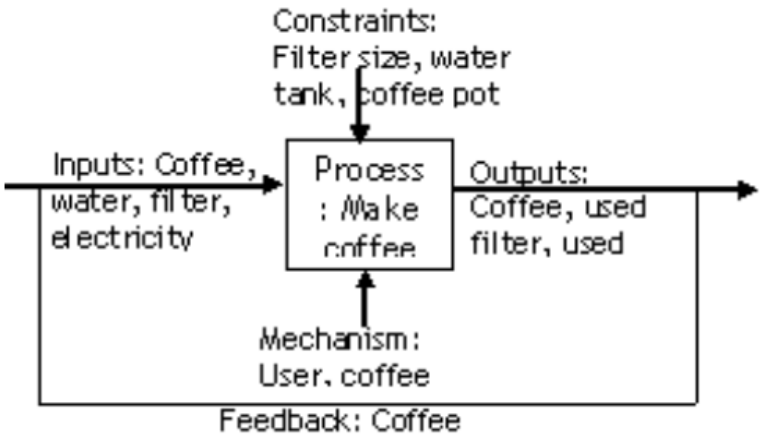
Week	Media Type/Focus	Topics & Assignments
1.1 X.x X=1 .x=2 1.1 ---- --- 1.1= Wk1 Day1	Reading Podcast / Video What is business process re-engineering? **Run videos at speed 1.25** What is a system? **inputs** **outputs** **resources** **constraints** IDEF0 Handout **Assignment Request for 9/1** Assignment Example page Assignment example <link **Model.1:IDEF0**	**Tilley, ch 1.** Intro to Systems Analysis (free link) • 1st chapter is FREE !, use above link • Awareness & Design – Michael Hammer o https://www.youtube.com/watch?v=9oxM5JV7H50 • Business Process Re-engineering explained - o https://www.youtube.com/watch?v=v-jAf7L2Uak ▪ (10.5min/1.25=8.4min) • IBM Business process Analysis (6.5min/1.25=5.2min) o https://www.youtube.com/watch?v=1E6II2U1shY Utilize your abstraction instinct while reading because the name "EMS" isn't important, but the concepts are. https://www.niu.edu/ems/introduction/definition.html 1) definition is page 1 + 8 more pages using <next topic> 2) The EMS model 3) Benefits of EMS 4) Examples of EMS 5) Systems approach 6) Concept diagram <focus and perform abstraction here> 7) Processes, inputs, outputs a. Example of: inputs, outputs, resources, constraints 8) Summary • IDEFØ – Function Modeling Method – IDEF - website o 2nd example of input, output, res., constraint Select a process you love or dislike. Define its input, outputs, resources, and constraints (IORC). Logically what goes into the system is either consumed or comes out. Notate ALL you think of. Then, list 5 to 10 high-level activities performed by the IORC. Use paper and pencil and send me a picture **anytime** end of the day tomorrow. I am only asking for a max of 15 min to whip up. Please spend more if having fun. Thank you for considering this fast turnaround, as I will use all work submitted to start Friday's lecture. Perform work as a team as desired or convenient. https://www.niu.edu/ems/introduction/constraints.html 

Week X.x X=wk .x=day	• Media Type • Focus/Goal • Assignment	Topics & Assignments
1.2 X.x X=1 .x=2 1.2 ---- ---- Wk1 Day2	Overivew Podcast / Video **Run videos at speed 1.25** Focus / Goal **Model.2:SWOT** **Model.2:SWOT. Decision.Book** **Model.3: Swimlane**	**Ch2: Overview** o ch2 directs focus to busines cases and how to identify a system for analysis. It augments learnings with factors contributing to project success/failure, purpose+ how.to a perform feasibility study, align priorities, and perform an preliminary investigation. o Section 2.9, "Preliminary Investigation" (p.26), outlines your revolving course focus building skills and techniques in o **Abstraction:** Which tool-kit model will help me quickly assess the situation asked of me? ▪ Quick assessments illustrate your ability to another party to grok salient factors, exercise skill by presenting a visual or data dashboard, and communicate back to manager or stakeholder. ▪ *Why should person X trust you*? Your responsible for building trust b/c it gets you access to more resources and what you need most, time. o **Data:** What data collection strategy will help me access inputs, outputs, resources, and constraints? o **Siutational awareness:** After presenting initial response to business owner, what kind of model support, time, and resources do I have? Do I need? ✓ info.Tech resources usually can help get process metrics, source metric data, and any other information to meet your analysis goals. ✓ Data not what you need? Initiate estimation work. ✓ Today, operations often have project planning documents associated with the system workflow you should inspect while applying your abstraction work. ✓ **SWOT model**@bh.github. When in doubt fall back to basics to help assess a situation's status with strengths, weaknesses, opportunities, and threats. (tilley.p.45, krogerus.tschappelerp.p12). **Model.3.Swimlane** **Purpose:** use horizontal or vertical gradating color bars to demarcate business lines illustrating system inputs, activities, and decisions connected with arrows.

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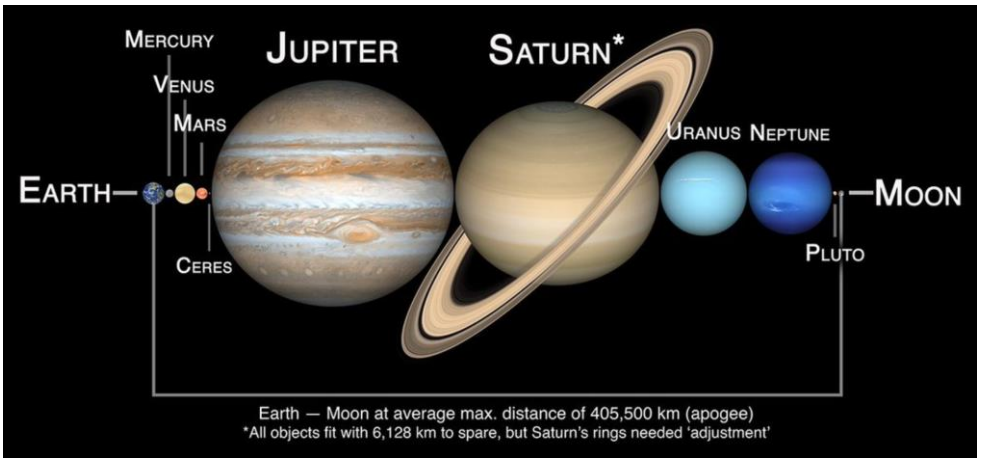
1.2	**Model.3: Swimlane** note: additional resources are now on the model link page **model.3.swimlane** **<bh.github>** **<how.to.doc>** **<wikipedia>** sorry! in github you have to download to get link to work or use them here **Swimlane Assignment request by 9/6 @6ish PM**	**Assignment: Tilley Ch2 + Roughcut Swimlane diagram** ➢ Swimlanes no longer have notoriety as in 1993, and some IT professionals view them as a hindrance to what they need, that is, codified information. ➢ However, swimlanes are super at helping a senior manager or new employees quickly grasp what an organization is doing and how they are doing it. ➢ **"""You're the only resource, but you can have and do anything you want to do. Please include,"""** ➢You're the only resource but can have, and do, anything you want to do. Please include, ✓ Square(ish) boxes to represent activites ✓ Lines to connect between activities ✓ Line arrowheads to show directionality between shapes ✓ Diamond(ish) boxes to represent decisions ✓ Text in squares + diamonds + on lines to detail happenings ✓ Optional: add a numeric index for each box & feel free to annotate "anyway" you like.  For example: --- Earth:Launch ↓ --- Mars: Fuel up -> Open solar flares 3 yrs ↓ --- Neptune: Turn into nano-space particulates --- ❖ **Please email a picture however you build it.** ❖ **The goal is to be more thoughtful of your logic.**

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Wk2 Day1 + Day 2 **2.1 + 2.2** **Wk2 Day1**	Focus / Goal **Assignment request to perform by EOD Thursday 9/8.** Book Matthes, E. (2019), Python Crash Course, 2nd **Good luck!**	**Ch5: Overiew,** Develop an understanding of object-oriented programming (OOP) by performing hands-on activities to learn the basics of Python strings, dictionaries, tuples, lists, sets, and functions supporting object-oriented programming methodologies. Understanding the mechanics of info.TECH components can help quickly establish peer credibility. Taking apart hard drives and reading and writing code builds credibility with your future peers. It has also become somewhat necessary for systems design work because file sizes are large, and often regular spreadsheet apps can't open them. Performing hands-on work in OOP will help ensure you can read dot.notation code format shared across many modern programming languages. It will help you write better search criteria in Google to find the information you need. It will also give you modern tools to extract, translate, and load (ETL) data you need for systems design exercises. a) Reading: Tilley, Ch5. b) Reading: Matthes, Alien Invasion, Ch12. • Note: custom materials being provided replace Matthes chapters 1-11. Good to skim by priority: Ch:9,1,3,6 c) Install Python **Please watch video (i). The best course of action is installation via anaconda b.c it is engineered to auto-fix MANY challenges. However, if done wrong, the 1st time may take => 2-3x more work/time to fix. You "do not" have to figure this out yourself so please reach out with any questions.** **i.** 1.3M views on Youtube: Install Anaconda Python, Jupyter Notebook And Spyder on Windows 10 - YouTube **ii.** good start place = jupyter notebook classic home **iii.** Jupyter :: Anaconda.org **Optional: online\cloud Jupyter Notebook:** **I am not 97% sure everything 'coud' run in the new cloud JupyterLite Python.** • https://jupyter.org/try-jupyter/lab/ • JupyterLite — JupyterLite 0.1.0-beta.12 documentation