

Teaching to Git Gud: The **DARK SOULS™** Framework for Economic Education

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For the Unkindled: What is 'Dark Souls'?

- Dark Fantasy game developed by FromSoftware
 - Started an entire genre known as 'Soulsbourne'
- Famous for challenging gameplay and no hand-holding
- Death is expected and becomes part of learning
 - The ultimate version was tag-lined the '*Prepare to Die Edition*'
- Progress comes through experimentation, adaptation, and persistence
- Combat is strategic problem solving, not simple hack and slash



Bottom line: Dark souls does not teach through tutorials; it teaches through experience

Background

- Lordran: a kingdom that has collapsed after battles between gods and dragons, and humanity has succumbed to a mysterious curse known as the Undead Curse
 - When you die, you lose a piece of yourself, and are reborn where you last started from
 - Die enough, and you become Hollow – a mad, mindless shell with no reason
- Your character
 - An undead who has this curse, and thus are locked away in an asylum
- Your Quest
 - A friendly undead knight who is dying and about to turn hollow releases you from your cell and gives you your only instructions:
 - *In thine exodus from the Undead Asylum, maketh pilgrimage to the land of Ancient Lords... When thou ringeth the Bell of Awakening, the fate of the Undead thou shalt know... Well, now you know...*

How the Game Works

- You wander off with no map, forced to discover your way
- The world offers no guidance (and you can't change the difficulty)
- Lore and purpose is learned through conversations and reading descriptions of everything you find
 - You must piece together an intricate puzzle
 - Character conversations are still slightly cryptic



- Players are expected to explore, experiment, fail, learn, adapt
- Then you uncover the mysteries and your part in it all

Every action revolves around a simple cycle

- Explore
 - Venture into dangerous territory with limited knowledge and supplies
- Collect Souls
 - Universal currency used for purchasing things and increasing your abilities
 - Found throughout the game, earned from successful combat
 - Most areas include a daunting, larger-than-life boss character. Defeating them rewards you with a unique soul
- Risk
 - The more souls you carry, the more you have to lose



Every action revolves around a simple cycle

- Find Bonfires (Checkpoints)
 - Rest, reset your health *AND* the world around you (aka respawn enemies)
- Death
 - Lose all of your collected souls, restart at the bonfire, every normal enemy reappears
 - You have one opportunity to retrieve the lost souls, which are left where you died
- Learn – this is where the internet-famous ‘Git Gud’ meme gained in popularity



Why is it so compelling?

- The game creates an environment where:
 - failure is informative
 - Players learn enemy behavior
 - every decision has consequences
 - Combat timing, stamina management, weapon creation, skills selected
 - resources are limited and scarce
 - Players learn better management
 - multiple strategies can succeed
 - Risks are assessed
 - improvement is earned rather than given
- The game doesn't reward knowledge alone; it rewards reflection, persistence, and adaptation
- The character gains levels; the player gains knowledge

At its core, Dark Souls is Economics

- Souls
 - Currency, Human Capital
- Bonfires
 - Opportunity Cost
- Leveling Up
 - Diminishing returns, marginal analysis
- Death
 - Loss aversion
- Stamina
 - Marginal analysis
- Character Builds
 - Comparative Advantage
- Boss Items
 - Sunk Costs
- Merchants
 - Intertemporal choice
- Covenant Play
 - Collective action, public goods

Beyond Gamification: An Economic System, Not a Reward System

- Traditional Gamification
 - Adds elements to existing work
 - Rewards desired behavior
 - External Motivation
 - Points, badges, leaderboards
 - Learning and Game are separate
 - Complete this → earn badge
 - Great for Loot Goblins
- Souls Framework
 - The Course is the Game
 - Every mechanic represents an economic concept
 - Decisions have opportunity costs
 - Students optimize within incentives
 - Learning occurs through repeated economic decisions
 - Great for those who want to get good

Bottom line: Students are not playing a game to learn economics; they are learning economics by playing an economic system

How it works

- Assign work as you normally do for grades with due dates
- The 'Souls' mechanic operates as extra bonus points
 - Converted to extra credit points for exams
 - Can be used as currency for in-class items
- 'Souls' are earned through on-time (or early) submission
- 'Souls' are lost if something is late
- Group Projects (if you use them) can earn their own 'Souls'
 - Used similarly
- The idea is to create a functional economy in class that thrives on their love of extra credit

My Design: Spring 2027 Intro Macro

- 9 functional units taught over the semester (Thursdays, 3.5 hour class)
- Each unit assigns one 'Applied Analysis' exercise (in addition to MyLab)
 - Real World Applications; Creation; Structured Thinking – low stakes personalized assignments
- Ex: Real World Application
 - Submit a photo of a product you regularly use. Write a short paragraph detailing if it is a substitute or complement for something else, what incentive causes them to buy it, and how they would react if the price doubled.
- Ex: Creation
 - Create a single PowerPoint slide giving a short presentation to your parents explaining why focusing on school instead of working full-time can be economically rational.
- Ex: Structured Thinking
 - The Fed announces a major increase in interest rates. Write a 200-300 word prediction to your closest friend about what will happen to consumer spending, borrowing, unemployment, and one possible unintended consequence
- Grade on a Likert Scale. They're quick reads and quite entertaining

My Design: Souls → Execution & Council Capital

- Assignments are due before the following class day (Wed 11:59pm)
 - *No Canvas due date set – this is intentional*
 - I tell them:
 - If submitted by 11:59pm Tuesday – 100 Execution Capital earned (base)
 - If submitted after 11:59 Tuesday– 50% Execution Capital earned
 - If missing – 0 earned
 - Maximum 900 EC can be earned (so far)
 - This is separate from grading based on merit
- I use a semester long group project
 - If all team members are present and working together during class
 - 100 Council Capital Earned
- Execution/Council Capital usage
 - Purchase items from the Traveling Merchant (me, in class only)
 - Convert to bonus exam points at 'The Exchange' which is immediately before an exam (the bonfire mechanic)

The Exchange

- Prior to an exam, we hold the 'Exchange' where students can convert Execution Capital (EC) into bonus points for that exam. They are also punished for missing work
- First, losses are assessed
 - *Any missing assignment = 50% loss of *all accumulated* EC*
- Second, exam bonus point conversion
- 1 Exam bonus point costs:
 - Exam 1: 100 EC
 - Exam 2: 125 EC
 - Exam 3: 150 EC



The Traveling Merchant

- I display my available wares during the class break
- Charm of Safekeeping (consumable)
 - 150 EC after exam 1; 175 EC after exam 2
 - Protects against missing applied analysis penalty. Used once
- Divine Blessing (consumable)
 - 175 EC
 - Minimum exam score of 60% on the next exam
- Scroll of Guidance (consumable)
 - 100 EC
 - One hint regarding the upcoming exam



The Traveling Merchant

- Some wares serve as equipment or a service
- Scholar's Quill (permanent item, available starting the third class)
 - 50 EC
 - Assignments earn +10 EC
- Lucky Coin (permanent item)
 - 125 EC
 - Every time you earn EC, roll a d20. If it is a natural 20, gain another 20 EC
- Council Offering (service)
 - No Cost
 - Donate 100 EC to your Council, the Merchant matches 25 EC



Specializations

- After the first exam, we incorporate 'Character Classes'
- The student can choose one of three types with different areas of focus
- This decision, like nearly all choices in the souls games, is irreversible



The Prospector

- 25% discount on regular merchant items
- Exclusive items (only available to this class)
 - Investor's Contract (200 EC, permanent):
Future assignments earn +50 EC
 - Merchant Ledger (150 EC, permanent):
Can refund unused purchases at cost paid
- Focus: Growth and Investment



The Seer

- Exchange for bonus points gains a 20% boost
- Exclusive item:
 - Crystal Ball (200 EC, permanent): Can convert EC to bonus points after exams
- Focus: Human Capital, Conversion efficiency



The Surveyor

- 10% discount on regular items
- 10% boost to Exchange rate
- Exclusive Items:
 - Shield of Recovery (200 EC, permanent):
After an exam, if your score is below 70, receive +2 points
 - Scroll of Resolve (50 EC, consumable):
Ignore one late penalty on an assignment
- Focus: Balanced protection, flexibility



Group Projects – “Councils”

- Options for incorporating group work too!
- I dedicate class time for groups to get together and work.
 - If **all** members are present and working = +100 Council Capital (CC)
 - Max 900 can be earned through class
- Dedicated Council Items (1 available of each)
 - Banner of Unity (500 CC, +1 exam point for everyone)
 - Collective Safeguard (700 CC, min score of 60 on next exam for everyone)
 - Supply Cache (300 CC, each member receives +50 EC)
 - Founders Legacy (1200 CC, +2 exam points for everyone)
 - This is more than the group can earn alone, requires donation from members



*....engage in jolly co-operation!
-Solaire of Astora*

Endgame Analysis – Bringing it full-circle

- A separate assignment – the last of the semester. 500-800 words
- “Throughout this course, you acted as an economic agent operating under scarcity. You made decisions about how to allocate your limited time, effort, attention, and resources across competing priorities while balancing incentives, deadlines, risks, and tradeoffs.”
- In this assignment, analyze yourself as an economic decision-maker.
- Your response should address, at a minimum, these four areas:
 - Incentives that influenced your behavior during the course
 - Tradeoffs and opportunity costs you faced
 - A marginal decision you made during the semester
 - What would you do differently if you retook this course
- You must correctly use at least three economic concepts from the course in your analysis.

Summer 2026 – Async online version

- Stripped-down pilot on the central incentive of timely progress
- Course divided into three parts with three units each
 - Same nine units
- All course content remained available from the beginning
- Students could submit graded work through the final day
- Each unit included an Applied Analysis assignment
- Recommended deadlines created a path through the course
- Execution Capital rewarded students for following that path

Async Pilot: Two Payoffs for the Same Task

- Completion Credit
 - Based on the quality of the submitted work
 - Available through the end of the course
 - Determined the assignment grade
 - Preserved student flexibility
- Execution Capital
 - 1 EC: timely submission with reasonable effort
 - 0.5 EC: timely submission with minimal effort
 - 0 EC: submitted after the recommended date
- Every 3 EC became 1 bonus point on the final course score
- Maximum possible bonus: 3 percentage points
- The grade rewarded learning; Execution Capital rewarded timing.

Endgame Analysis Reflections

- “Looking back I can see how much of my decision making actually lined up with what we learned in this course. I didn’t realize it at the time, but I was basically acting like an economic agent every day.”
- “I also wasn’t aware of the extent to which my own life could be applied to the economic world.”
- “Looking back, I realize many of my choices can be explained using economic concepts that influenced how I managed my semester.”
- “This class actually made me think about my own habits differently. I was already making tradeoffs every day but after taking this class, now I know the actual words for it. ”

Inventory System: Managing the game

- Streamlining a method to keep track of everything
 - Canvas and Google
- Mixture of Google Sheets, Forms, and Apps Script
 - One Master Ledger with all the role/item rules, student data
 - Google Forms for Merchant purchases and Exchange conversions
 - Apps Script for generating student displays
- Designed to use formatting from Canvas exports
 - Gradebook for names, IDs, assignment names
 - Late/Missing items reports for populating scores
 - These reports copied into the master ledger updates points based on on-time, late, missing submissions

Inventory System: In progress

- Google forms facilitates transactions
 - Feeds information to the Master Ledger sheet
 - Calculates balances
- Apps Script generates 'Character Sheet'
 - HTML dashboard synced with school's google account (login from Canvas)
 - Master ledger has email login ID from Canvas gradebook
 - Generates a view of Inventory and point balances

The in-progress mechanism-Instructions

Souls-Game Course Ledger — Starter Template

A points economy you control. Edit blue cells; black cells calculate themselves.

HOW THIS WORKBOOK MAPS TO THE 5 STEPS

1. Single source of truth

Every tab below feeds one set of balances. You never compute by hand — formulas do it. The Student Balances and Lookup tabs are read-only views you can share or screenshot for students.

2. Turn rules into numbers

Open the Settings tab. The late penalty, missing-work penalty, point-to-extra-credit rate, and the specialization role bonuses all live there as editable blue cells. Change a number and the whole workbook re-prices itself.

3. Feed submissions in (the Canvas way)

Canvas's gradebook export gives you scores but NOT submission times. So this workbook flips it around: in the Points Ledger every submission defaults to On-time, and you only mark the exceptions. In Canvas open New Analytics > Reports,

4. Show students where they stand

Student Balances is your live leaderboard (very on-theme). The Lookup tab shows one student's full standing — pick an ID and everything populates. Share these as view-only.

5. Route purchases, conversions & pooling

When a student wants to buy an item, convert points to extra credit, or pool points into their group, add a row to Transactions and set Approved? to Yes. Their balance and the group balance update on their own. Set it to No to hold a request.

TAB GUIDE

Settings

All your economy rules + the specialization roles table. Start here.

Roster

Your students: ID, name, group, and spec role (assign roles after Exam 1).

Item Shop

Things students can buy, individual or group, with base prices.

The in-progress mechanism – Course rules

Settings — Economy Rules

Edit the blue cells. Everything else recalculates from these.

GLOBAL RULES

"Late" penalty (percent of points lost if late)	50%
Missing-work Exchange penalty (percent of total points)	50%
Points needed per 1 extra-credit point: Exam 1	100
Points needed per 1 extra-credit point: Exam 2	125
Points needed per 1 extra-credit point: Exam 3	150

SPECIALIZATION ROLES

(reveal after Exam 1 — assign in the Roster tab)

Role	Item Discount	Conversion Bonus
None	0%	0%
Prospector	25%	0%
Seer	0%	20%
Surveyor	10%	10%

Tip: add roles by inserting rows inside the table above, then extend the dropdown range if needed.

SPECIAL ITEMS

Item Description	Item Name	Extra EC Points	Extra CC Points
Scholar's Quill	I03	10	
Investor's Contract	I07	50	
Council Offering	I04		125
Supply Cache	G03	50	

The in-progress mechanism – Item shop

Item Shop

What students can buy. Individual items get the buyer's role discount, group items are bought from the group balance.

Item ID	Item Name	Type	Spec Role	Permanent	Base Price	Description
I01	Charm of Safekeeping	Individual	None	No	150	Protects against missing Applied Analysis penalty. One time use.
I02	Divine Blessing	Individual	None	No	175	Minimum score of 60 on the next exam. One time use.
I03	Scholar's Quill	Individual	None	Yes	50	Applied Analysis earns +10 EC. Permanent item.
I04	Council Offering	Individual	None	No	100	Add 125 Council Capital to your Council. Immediate transfer.
I05	Scroll of Guidance	Individual	None	No	100	One hint regarding the upcoming exam. One time use.
I06	Lucky Coin	Individual	None	Yes	125	Every time you earn EC, roll a d20. If it is a natural 20, gain another 20 EC. Permanent item.
I07	Investor's Contract	Individual	Prospector	Yes	200	Future Applied Analysis awards +50 EC. Permanent item.
I08	Merchant Ledger	Individual	Prospector	Yes	150	Unused purchases can be refunded at full cost. Permanent item.
I09	Crystal Ball	Individual	Seer	Yes	200	You may wait until after exams to convert EX into bonus points. Permanent item.
I10	Shield of Recovery	Individual	Surveyor	Yes	200	After an exam, if your score is below 70, gain +2 points. Permanent item.
I11	Scroll of Resolve	Individual	Surveyor	No	50	Ignore one late penalty on an Applied Analysis Assignment. One time use.
G01	Banner of Unity	Group	None	No	500	+1 Exam point for everyone in your Council
G02	Collective Safeguard	Group	None	No	700	Each Council member receives a minimum score of 60 on the next exam
G03	Supply Cache	Group	None	No	300	Each Council member receives +50 individual EC
G04	Founder's Legacy	Group	None	No	1,200	+2 exam points for every Council member

Canvas reports get pasted in

- 'Late' is after my set deadline for max points
- 'Missing' is on day of class – necessary for loss mechanic

Late Canvas Status — paste from New Analyti									
From Canvas: New Analytics > Reports. Download Late, Missing, and Excused CSVs,									
Student Name	Student ID	Course Name	Course ID	Section Name	Assignment Name	Points Possible	Due Date	Unlocked Date	
	34248	ECON-102 50		34574 Section 50	Submit: Creation/Synthesis - Part 1		4 Jun 2, 2026, 11:59:00 PM EDT		
	35438	ECON-102 50		34574 Section 50	Submit: Creation/Synthesis - Part 1		4 Jun 2, 2026, 11:59:00 PM EDT		
	34248	ECON-102 50		34574 Section 50	Submit: Creation/Synthesis - Part 2		4 Jun 2, 2026, 11:59:00 PM EDT		
	35438	ECON-102 50		34574 Section 50	Submit: Creation/Synthesis - Part 2		4 Jun 2, 2026, 11:59:00 PM EDT		

Missing Canvas Status — paste from New Ana									
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Student Name	Student ID	Course Name	Course ID	Section Name	Assignment Name	Points Possible	Due Date	Unlocked Date	
	34248	ECON-102 50		34574 Section 50	Submit: Creation/Synthesis - Part 1		4 Jun 2, 2026, 11:59:00 PM		
	34248	ECON-102 50		34574 Section 50	Submit: Creation/Synthesis - Part 2		4 Jun 2, 2026, 11:59:00 PM		
	35438	ECON-102 50		34574 Section 50	Submit: Creation/Synthesis - Part 2		4 Jun 2, 2026, 11:59:00 PM		

Feeds Master Ledger

- Automatically assigns the correct points
- Exchange Calculation creates the loss mechanic

	A	B	C	D	E	F	G	H	I	J
1	Points Ledger									
2	Add a row per student per assignment (blue = your input). Status defaults to On-time and is overridden by the Canvas Status tab's Late/Missing/Excused flags. Submitted is optional (use									
3	Entry #	Group	Spec Role	Student	ID	EC Base (100)	Submit: Creation/Synthesis - Part 1 (358394)	Submit: Creation/Synthesis - Part 2 (358402)	Submit: Creation/Synthesis - Part 3 (358406)	Exchange Calculation
4	1				34248	100	0.00	0.00	100.00	50.00
5	2				34015	100	100.00	100.00	100.00	300.00
6	3				23961	100	100.00	100.00	100.00	300.00
7	20				35438	100	50.00	0.00	100.00	75.00
8	21				33448	100	100.00	100.00	100.00	300.00
9	22				31734	100	100.00	100.00	100.00	300.00
10	23				28431	100	100.00	100.00	100.00	300.00

Not shown & under construction

- Google form that feeds the transaction sheet
- Google form for Specialization choice
- Google form for Exchange Conversion
- App script html for student display

- More to come!
- Thank you!

Just for fun:

[Honest Trailer: Dark Souls](#)

[Well, What is It?](#)