AVAILABLE WORLDWIDE

The mathematics behind video games.

International guest lectures, masterclasses and professional training.



AI-edited portrait

Denis Nešić

Mathematician · Game economy & systems designer · Educator

Croatian consultant and founder of FUNANAS, connecting quantitative modeling with real-world game development and international production experience.

40+	6M+	5+	4 yrs
game projects	combined downloads & visits	years in game design	mathematics tutoring

Portfolio-wide combined figures, including additional projects; not unique users.

Teaching & mentorship

Academic foundation

BSc Mathematics, University of Zagreb; Mensa membership history dating to 2017.

Mathematics education

Tutoring (2018–2022) and preparation of workshops for national mathematics competitions.

Game design education

TCG design teaching; mentoring in game design, mathematical modeling and Machinations; leadership of designers and playtesting teams.

funanas.com/lecturer/

Signature masterclasses

Eight modular topics that connect mathematical foundations with practical industry decisions. Each can be delivered as a guest lecture or expanded into a hands-on session.

01

The Mathematics Behind Video Games

Mathematics · Engineering · Design

Apply probability, expected value, randomness and growth curves to game mechanics.

02

Designing Sustainable Game Economies

Design · Product · Development

Map resource sources and sinks, diagnose inflation and compare economic flows.

03

Balancing Games Before Writing Code

Engineering · Design · Analytics

Build spreadsheet simulations, test assumptions and compare tuning scenarios.

04

Progression, Retention and Player Motivation

Design · Product · Business

Create meaningful milestones, pacing and reward loops; identify excessive grind.

05

Building Trading Card Games from Scratch

Digital & tabletop design

Estimate card value, calculate rarity and pack odds, and plan structured playtesting.

06

Monetization and LiveOps Strategy

Product · Business · Studios

Evaluate pricing, reward value and content cadence with sustainable player experiences.

07

Game Economy Modeling with Google Sheets and Machinations

Design · Analytics · Engineering

Build and interpret practical models of progression and resource flows.

08

Working in the International Gaming Industry

Students · Designers · Studios

Explore collaboration, design workflows and professional practice across international teams.

From theory to production

Explain the concept, experiment with a model, and justify a design decision.

SAMPLE 3-HOUR MASTERCLASS

Balancing a game before coding

00–30 min	**Define the problem** Establish the player journey, goal and constraints.
30–75 min	**Build a model** Map resources and create a simple progression simulation.
75–120 min	**Test scenarios** Compare outcomes, identify bottlenecks and adjust parameters.
120–180 min	**Present and discuss** Justify decisions, review results and answer questions.

Outcome: a working sample model and a method for evaluating design decisions.

Selected project experience

2M+ downloads

Hero Adventure · TapNation

RPG growth curves, idle income and economy architecture.

2.6M+ visits

Slime Era · Roblox

Progression, rebirth scaling and inflation control.

250K+ downloads

FabuLingua

Learning milestones, reward systems and engagement.

Competitive systems

BloodLoop

Ranking, matchmaking and seasonal rewards.

500+ cards designed

OctoWars / TCG design

Card systems, rarity, balance and playtesting.

Physical card game

Sneaky Snakes

Entrepreneurship, commercial launch and live playtesting.

Try the interactive booster-pack simulator on the lecturer website.

funanas.com/lecturer/

Bring industry practice to your audience.

Flexible formats for universities, game studios, conferences and professional communities.

Guest lecture

60–90 minutes

A focused talk with practical industry examples and audience Q&A.

Interactive masterclass

2–3 hours

Guided exercises, simulations and discussion to develop a concrete skill.

Private studio training

Half or full day

Applied learning tailored to the team’s design or economy challenges.

Intensive academic module

10–20 hours

A sequence of sessions, practical exercises and a final design activity.

Tailored to your learning objectives

Audience level, learning objectives, format and materials are agreed in advance. Sessions use public or illustrative examples, not confidential client data. Practical workshops may use Google Sheets or Machinations.

Let’s design a session together.

Available worldwide for in-person and remote engagements. Sessions in English; Spanish language support can be arranged.

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denisnesic1996@gmail.com