



Full guide + ask Sia about ACCY 312

SIDE 1/2 CLASSIFY → PLACE → COMPUTE → CHECK

FINAL · BOTH SIDES

Methods, rules, thresholds · Fall 2026

01 • Exam map

COURSE.JSON · SYLLABUS

Q15

HW

Ind

Mid 16

Memo

Cor

Final 32%

ASSESSMENT	WT
In-class Quizzes	15%
Homework	8%
Tax Return – Individual	8%
Exam I (midterm)	16%
Research Memorandum and Presentation	15%
Tax Return – Corporation	6%
Exam II (cumulative final)	32%

“All exams will be in-person and are closed book. However, you may use an 8.5x11-inch sheet on which you can write formulas or other helpful information. For the midterm, you are permitted to use one side of the sheet; for the final, you are permitted to use both sides of the sheet.” (ACCY 312 syllabus, Fall 2026)

02 • Master computation

C4

GROSS INCOME

– deductions for AGI

ADJUSTED GROSS INCOME

– greater of standard / itemized
– other deductions from AGI

TAXABLE INCOME

× rates + other tax
– tax credit – prepayments

Core checkpoints: placement errors propagate through every AGI-based limit.

BOTTOM LINE
Gross income - for-AGI deductions = AGI
AGI - from-AGI deductions = taxable income
Income tax + other taxes - tax credit - prepayments = due (or refund)

Label every fact before adding: income now; exclusion; deferral; for AGI; from AGI; tax credit; prepayment. Realization requires a transaction with another party and a measurable change in property rights.

02A • Placement audit	
QUESTION	IF YES
Transaction changed property rights?	Realized; continue.
Specific exclusion?	Leave out permanently.
Specific deferral?	Recognize in later year.
Business/investment deduction?	Usually for AGI; lowers AGI.
Personal allowed deduction?	Usually from AGI; compare standard/itemized.
Payment already made?	Prepayment; subtract after total tax.

03 • Rates & tax types

C1–C2

THREE MEASURES

Marginal = Δ total tax ÷ Δ taxable income
Average = total tax ÷ taxable income
Effective = total tax ÷ total economic income

MEASURE	USE	DENOMINATOR
Marginal	Next-dollar planning	Δ taxable income
Average	Budget tax expense	Taxable income
Effective	Compare burdens	Total income, including exempt

constant rate

rate rises

rate falls

FLAT

PROGRESSIVE

REGRESSIVE

Source figure redraw: the rate changes with the base; Social Security becomes regressive above its cap.

SCHEDULE ALGORITHM

1. Choose filing-status schedule.
2. Find band containing taxable income.
3. Subtract band floor; multiply excess by band rate.
4. Add fixed tax on lower bands. Never multiply all income by the top rate reached.

TAX	BASE / DISTINCTION
Income	Individual or corporate income
Employment	Wages; FICA/FUTA
Excise	Quantity purchased
Transfer	Gift or estate
Sales / use	Retail purchase / out-of-state good used here
Property	Real / movable personal property

IMPLICIT TAX
After-tax taxable yield = taxable yield × (1 - marginal rate)
Implicit tax = taxable yield - exempt yield

Compare after-tax returns; municipal-bond interest is federally exempt.

04 • Evaluate a system

C3

RATE RISE

INCOME EFFECT
work ↑ · base ↑

SUBSTITUTION
leisure ↑ · base ↓

Dynamic forecast: the dominant behavioral response determines the new base.

CRITERION	QUESTION / EVIDENCE
Sufficiency	Revenue enough? Static vs dynamic.
Horizontal equity	Comparable taxpayers owe equal tax.
Vertical equity	Greater ability pays at a higher rate.

05 • Income & deductions

C4

RECEIPT REALIZED?

TAX NOW
gross income

EXCLUDE
never taxed

DEFER
tax later

Source figure redraw: realized receipts are taxed now unless excluded or deferred.

BUCKET	EXAMPLES / CONSEQUENCE
Gross income	Wages, business, rents, royalties, taxable interest, dividends; NIL cash/in-kind.
Not realized	Unsold asset appreciation.
Exclusion	Municipal interest, qualifying home-sale gain, gift, inheritance, life-insurance proceeds.
Deferral	Installment sale; like-kind exchange; tax later.

ABOVE VS BELOW THE LINE

FOR AGI	FROM AGI
Business, rental, royalty expense: ½ SE tax; IRA/HSA; qualified student-loan interest; qualifying old alimony; net capital loss ≤\$3,000.	Greater of standard/itemized, then applicable charity, senior, car-loan interest, tips, overtime, QBI deductions.
Lowest AGI and AGI-tested limits.	Lowest taxable income only.

2026 STANDARD DEDUCTION

Single / MFS \$16,100 · MFJ / surviving spouse \$32,200 · HOH \$24,150

Itemized categories: medical/dental, state/local tax, home-mortgage or investment interest, charity, qualifying disaster loss, allowed miscellaneous items. If one MFS spouse itemizes, the other must itemize.

SAME \$1,000

DEDUCTION
save \$1k × rate

TAX CREDIT
save full \$1k

Source figure redraw: tax effect differs even when face amounts match.

EXAM MOVE Put the line name beside every number before calculating; exclusions never reappear as deductions.

05A • Deduction chooser

C4

PROMPT CLUE	ACTION
IRA, HSA, business, rental, ½ SE tax	Deduct for AGI.
Medical, SALT, mortgage interest, charity	Add itemized total; compare with standard.
Personal-use loss	Not deductible.
Net capital loss	For AGI up to \$3,000; carry remainder forward.

Nothing is deductible without a provision. A for-AGI deduction can also improve an AGI-tested benefit; an equal from-AGI deduction cannot.

06 • Dependents first

C5

Every dependent must be a U.S. citizen or resident of the U.S., Canada, or Mexico and must not file a joint return. Test qualifying child first; if that fails, test qualifying relative.

QUALIFYING CHILD: FOUR GATES

R relationA ageR resideS support

Source figure redraw: RARS; failing a gate means try the qualifying-relative route.

QC TEST	DECIDING RULE
Relationship	Child/sibling or descendant; cousin fails.
Age	Younger than taxpayer and <19, or <24 full-time student; no limit if permanently/totally disabled.
Residence	Home > half year; college is temporary absence.
Support	Child provides no more than half own support; scholarship generally excluded from child's support.

Qualifying Relative Rule

QUALIFYING RELATIVE	RULE
Not QC	Cannot be anyone's qualifying child.
Relationship / household	Listed family, or lives with taxpayer all year; cousin only via household.
Support	Taxpayer normally provides > half.
Gross income	Below \$5,300 for 2026; no age test.

Tiebreak: parent; if parents compete, child lived with longer; then higher AGI. Dependents determine status and benefit eligibility.

07 • Filing-status chooser

C5

SPOUSE DIED?

yes → DEATH YR
MFJ available

no → MARRIED 12/31?
MFJ or MFS

HOH TEST?
yes → HOH

NO
single default

Source figure redraw: death-year and marital facts precede the HOH test.

STATUS	TRIGGER
MFJ / MFS	Married Dec. 31; MFS itemization linked.
Surviving spouse	Up to two years after death; dependent child at home; pays >½ home cost.
HOH	Unmarried; pays >½ upkeep; qualifying person.
Single	Default.

Abandoned spouse: HOH if no joint return, pays >½ home cost, home is dependent child's principal residence > half year, and spouses lived apart final six months.

08 • Regular income tax

C6

CHARACTER	RATE TREATMENT
Ordinary	Wages, taxable interest, nonqualified dividends, short-term gains; 10/12/22/24/32/35/37%.
Preferential	Qualified dividends + net LT capital gain; 0/15/20%.
Exempt	Excluded.

STACKING ALGORITHM
Ordinary slice = taxable income - preferential income
Tax ordinary slice on ordinary schedule
Stack preferential slice above ordinary; split at cutoffs
Total = ordinary tax + preferential tax

SINGLE 2026 STACK

taxable top

QD + NET LTCG
0% / 15% / 20%

stack line

ORDINARY
tax schedule

\$0

Source figure redraw: ordinary income fills lower space; preferential income sits on top.

2026 CUTOFF	0% ENDS	15% ENDS
Single	\$49,450	\$545,500
MFJ	\$98,900	\$613,700

Long term means held > one year; one year or less is short term and ordinary. Capital assets broadly include investment/personal-use assets; inventory, receivables, and business property generally do not.

KIDDIE TAX

Applies if unearned income >\$2,700 and child is <18; or age 18 with earned income ≤½ support; or full-time student <24 on same support test.

Net unearned income = lesser of (unearned income - \$2,700) or taxable income
Tax at parents' marginal rate for same character; remainder at child's rate.

Dependent standard deduction = greater of \$1,350 or earned income + \$450. Check: ordinary + preferential slices = taxable income; preferential slice never exceeds 20%.

09 • Rate anchors

C1 · C6

SINGLE 2026 BAND	TAX
\$0–\$12,400	10%
\$12,400–\$50,400	\$1,240 + 12% excess
\$50,400–\$105,700	\$5,800 + 22% excess

CROSSING A BAND Compute before and after; then Δtax ÷ Δincome; one table rate is wrong if the increment straddles a boundary.

10 • Other taxes

C7

TAX	BASE × RATE / THRESHOLD
Social Security	Employee wages to \$184,500 × 6.2%; employer matches.
Medicare	All wages × 1.45%; employer matches.
Additional Medicare	0.9% above \$200k single / \$250k MFJ / \$125k MFS.
NIIT	3.8% × lesser of net investment income or MAGI excess above \$200k other / \$250k MFJ / \$125k MFS.
AMT	Parallel broader base; pay only excess over regular tax. Ordinary 26/28%; preferential character retained.

2026 WAGE BASES

Social Security 6.2% cap \$184,500

Medicare 1.45% continues

+0.9% above threshold

Source figure redraw: Social Security caps; Medicare continues and may step up.

SELF-EMPLOYMENT SEQUENCE
Net SE earnings = Schedule C profit × 92.35%
SS = 12.4% × lesser of net SE or (\$184,500 - wages)
Medicare = 2.9% × all net SE earnings
Additional Medicare = 0.9% × combined excess
Deduct employer-equivalent half of regular SE tax for AGI.

Wages use the SS base first. Spouses have separate SS bases, but combined earnings test additional Medicare. Worker classification turns on control of how, when, and where work is done.

NIIT includes listed investment income and gains less related deductions; MAGI is usually AGI.

11 • Tax credit & payment grid	
ITEM	2026 RULE
Child tax credit	\$2,200 per qualifying child <17; \$500 other dependent. Reduce \$50 per \$1,000 or part above \$400k MFJ / \$200k others.
Refundable child amount	Lesser of 15% × (earned income – \$2,500) or \$1,700 per child.
Dependent care	Lesser of actual, \$3k one/\$6k 2+, earned income × 35%→20%; person <13 or disabled.
AOTC	First \$2k + 25% next \$2k; max \$2,500/student; first four years; 40% refundable.
Lifetime learning	20% of ≤\$10k; max \$2,000/taxpayer; nonrefundable.

AOTC proportional phase-out: \$80–90k single; \$160–180k MFJ. Do not claim both education benefits for the same student and expense.

PAYMENT SAFE HARBOR
Pay ≥90% current-year tax OR ≥100% prior-year tax (110% if AGI >\$150,000).



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W1 · Sort the formulaC4 WORKED

Facts: single; salary \$58,000; bank interest \$600; municipal interest \$900; cash gift \$5,000; unsold shares rise \$3,000; HSA \$1,000; deductible IRA \$3,000; itemized \$7,500.

LABEL BEFORE ADDING

GI: \$58k wages + \$600 interest

OUT: muni, gift, unrealized gain

FOR AGI: HSA \$1,000 + IRA \$3,000

TAKE \$16,100 STANDARD

Classification audit: excluded and unrealized amounts do not enter gross income.

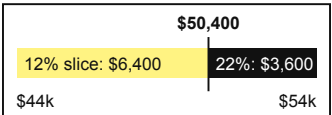
- Gross income = \$58,000 + \$600 = **\$58,600**.
- Municipal interest and gift are exclusions; unsold appreciation is not realized.
- AGI = \$58,600 – \$1,000 – \$3,000 = **\$54,600**.
- Standard \$16,100 beats itemized \$7,500.
- Taxable income = \$54,600 – \$16,100 = **\$38,500**.

CHECK
58,600 – 4,000 – 16,100 = 38,500.

TRAP An exclusion stays out; do not subtract it later as a deduction.

W2 · Raise crosses bandC1 WORKED

Facts: single taxable income rises \$44,000 → \$54,000.



The \$10,000 increment spans two marginal bands.

- At \$44,000: \$1,240 + 12% × \$31,600 = **\$5,032**.
- At \$54,000: \$5,800 + 22% × \$3,600 = **\$6,592**.
- Δtax = \$1,560; marginal rate on raise = \$1,560 ÷ \$10,000 = **15.6%**.
- New average rate = \$6,592 ÷ \$54,000 = **12.21%**.

TRAP The increment's rate is neither 12% nor 22% when it crosses the boundary.

W1-W2 · Audit linesC1 · C4

CHECK	EVIDENCE
Gross-income bridge	\$58,000 + \$600 = \$58,600; excluded/unrealized facts never enter.
AGI bridge	\$58,600 – \$4,000 = \$54,600.
Taxable-income bridge	\$54,600 – \$16,100 = \$38,500.
Raise split	\$6,400 × 12% = \$768; \$3,600 × 22% = \$792; sum \$1,560.

Reasonableness: the blended 15.6% rate must lie between 12% and 22%; the 12.21% average must remain below the top marginal band reached.

W3 · Municipal bondC2 WORKED

Facts: \$20,000 corporate bond pays 6%; investor's marginal rate 24%; municipal bond has same risk.

MATCH AFTER-TAX RETURNS

CORPORATE
6% = \$1,200
– tax \$288
net \$912

MUNICIPAL
exempt
4.56% × \$20k
= \$912

Source figure redraw: exempt yield equals the taxable after-tax yield.

- Interest = \$20,000 × 6% = \$1,200.
- Tax = \$1,200 × 24% = \$288.
- After-tax = \$912; return = \$912 ÷ \$20,000 = **4.56%**.
- Indifferent municipal yield = **4.56%**.
- Implicit tax = 6% – 4.56% = **1.44 percentage points**.

Tax-equivalent taxable yield = exempt yield ÷ (1 – marginal rate)

TRAP Compare after-tax returns, not quoted yields.

Drill · Forecast + equityC3 WORKED

GIVEN	CALCULATION	RESULT
Old: \$1m × 5%	Current	\$50,000
Static: \$1m × 6%	No behavior	\$60,000; +\$10k
Dynamic: \$900k × 6%	Base shrinks	\$54,000; +\$4k

If \$40,000 pays \$4,000, rate = 10%. **Horizontal:** another \$40,000 taxpayer pays \$4,000. **Vertical:** \$160,000 taxpayer pays at a rate >10%, so **more than \$16,000** (guide's minimum integer answer: \$16,001).

HORIZONTAL
same facts → same \$

VERTICAL
ability ↑ → rate ↑

Vertical equity tests the rate, not merely tax dollars.

TRAP More dollars at the same rate is proportional, not vertically equitable here.

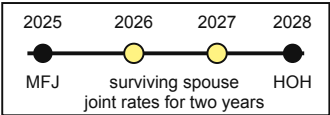
Tax-type recallC2

2026/CLASS ANCHOR	FIGURE
Social Security, combined	12.4%; 6.2% each side
Medicare, combined	2.9%; 1.45% each side
FUTA	6% of first \$7,000; employer
Estate exemption	\$15 million / individual
Annual gift exclusion	\$19,000 / donee
Illinois individual income	Flat 4.95%
Champaign combined sales tax	9%

Pair distinctions: sales is collected on local retail purchase; use reaches goods bought elsewhere and used locally. Real property is land/buildings; personal property is movable. Excise is charged per unit.

Status & dependent drillsC5 WORKED

Dana: spouse dies 2025; not remarried; 7-year-old son lives with her; she pays all home costs.



Death-year MFJ, two qualifying-survivor years, then HOH if facts persist.

YEAR	STATUS / WHY
2025	MFJ available in year of death.
2026–27	Surviving spouse: dependent child + home cost.
2028	HOH after two-year window.

2026 standard deduction = **\$32,200**, same as MFJ.

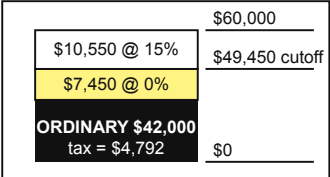
RAPID CLASSIFICATION

- College absence counts as residence with parents.
- Cousin fails QC; can be QR only through all-year household plus income/support.
- QC scholarship generally omitted from child's own support.
- Competing parents: longer residence, then higher AGI.

SEQUENCE Dependency route → status → schedule, deduction, phase-out threshold.

W4 · Stack LT gainC6 WORKED

Facts: single; taxable income \$60,000, including \$18,000 net LT capital gain.



The \$18,000 gain crosses the single 0% cutoff.

- Ordinary = \$60,000 – \$18,000 = \$42,000.
- Ordinary tax = \$1,240 + 12% × (\$42,000 – \$12,400) = **\$4,792**.
- Gain at 0% = \$49,450 – \$42,000 = **\$7,450**.
- Gain at 15% = \$10,550; tax = **\$1,582.50**.
- Total = \$4,792 + \$1,582.50 = **\$6,374.50**.

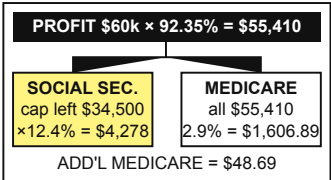
CHECKS **\$42,000 + \$18,000 = \$60,000; \$7,450 + \$10,550 = \$18,000.**

Dependent comparisonC5

FEATURE	QUALIFYING CHILD	QUALIFYING RELATIVE
Relationship	Child/sibling descendants	Wider family or all-year household
Age	<19; <24 student	None

W5 · Wages + side businessC7 WORKED

Facts: single; wages \$150,000; Schedule C net profit \$60,000.



Wages consume the Social Security base before side-business earnings.

- Wage SS = \$150,000 × 6.2% = **\$9,300**; Medicare = \$150,000 × 1.45% = **\$2,175**.
 - Net SE = \$60,000 × 92.35% = **\$55,410**.
 - SS base left = \$184,500 – \$150,000 = \$34,500; ×12.4% = **\$4,278**.
 - SE Medicare = \$55,410 × 2.9% = **\$1,606.89**.
 - Additional Medicare = (\$150,000 + \$55,410 – \$200,000) × 0.9% = **\$48.69**.
 - Total pieces = **\$17,408.58**.
- 9,300 + 2,175 + 4,278 + 1,606.89 + 48.69 = 17,408.58

TRAP Do not give the side business a fresh \$184,500 SS base.

NIIT & AMT mini-methodsC7

NIIT: CHOOSE THE SMALLER BASE

net investment income

MAGI – filing threshold

LESSER × 3.8%

NIIT is independent; AMT instead compares two tax results.

NIIT = 3.8% × min(net investment income, MAGI – threshold)
AMT due = max(0, tentative minimum tax – regular tax)

Large capital gains or itemized deductions make AMT more likely. Preserve qualified-dividend and long-term-gain character in the alternative computation.

Employment-tax auditC7

ORDER	QUESTION
1	Employee wages? Compute 6.2% SS to cap + 1.45% Medicare.
2	Schedule C profit? Multiply by 92.35%.
3	SS cap remaining after wages? Apply 12.4% only there.
4	Apply 2.9% Medicare to all net SE earnings.
5	Combined earnings exceed filing threshold? Add 0.9%.

Family & education drillC8 WORKED

Facts: MFJ AGI \$168,000; son age 10; daughter age 18 in first college year; \$5,000 eligible tuition.

DEPENDENTS
son <17 = \$2,200
daughter 18 = \$500
total \$2,700

AOTC
base \$2,500
40% phase-out
allowed \$1,500

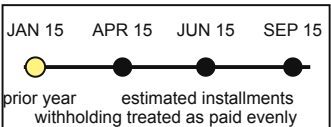
TOTAL REDUCTION = \$4,200

Age decides \$2,200 vs \$500; AGI position decides AOTC reduction.

- Child amount: \$2,200 + \$500 = **\$2,700**; no reduction below \$400,000 MFJ.
- AOTC base = \$2,000 + 25% × \$2,000 = **\$2,500**.
- Range used = (\$168,000 – \$160,000) ÷ \$20,000 = **40%**.
- Reduction = \$1,000; AOTC = **\$1,500**.
- Combined reduction = **\$4,200**.

TRAP Test age at year-end; age 17+ receives \$500, not \$2,200.

Phase-outs & payment clockC8



Source figure redraw: four estimated-payment dates; withholding is allocated evenly.

RULE TYPE	FAST CALCULATION
Child phase-out	ceil(excess AGI + \$1,000) × \$50.
AOTC phase-out	Base × fraction through \$10k single / \$20k MFJ range.
Dependent care	min(actual, \$3k/\$6k, earned income) × 35% > 20%.
Safe harbor	90% current or 100% prior (110% if AGI > \$150k).

Rounding: \$15,500 excess = 16 steps × \$50 = **\$800 reduction**, not \$775.

Penalties: file late 5%/month; pay late 0.5%/month; each max 25%.

Tax credit chooserC8

BENEFIT	KEY GATE	REFUNDABLE?
Child tax credit	QC under 17	Part, limited formula
Other dependent	Dependent age 17+ / QR	No
Dependent care	Care enables work; child <13/disabled	No
AOTC	First 4 postsecondary years; per student	40%
Lifetime learning	Graduate/continuing; per taxpayer	No

Method chooserC1–C8

WHAT IS ASKED?

LIABILITY formula lines

STATUS deps first

OTHER TAX base × rate

label receipt deduction char. + rate

QC → QR death/marital HOH/default

cap / gate lesser-of? add/compare

END: DENOMINATOR · SPLIT · CHECK

Identify object, select rule, compute, reconcile.

IF FACTS MENTION...	START HERE
Receipt/expense	Realization → inclusion/exclusion/deferral → for/from AGI.
Child/person	QC RARS → QR → status → benefit.
Dividend/gain	Character → holding period → stack.
Wages + business	Wages use SS cap → 92.35% SE base.
Investment + high AGI	NIIT lesser-of; separately compare AMT.
Family/tuition	Age, count, expense cap, refundability, phase-out.
Underpayment	90% current vs 100/110% prior.

Last-pass trap ledgerALL CHAPTERS

WRONG SHORTCUT	REPAIR
Total income × top rate	Fixed lower-band tax + rate × excess.
Average = effective	Effective denominator includes exempt income.
Use tax = second sales tax	Out-of-state purchase used locally.
For/from AGI same	Only for-AGI lowers AGI-tested limits.
Itemized always	Greater of standard and itemized.
College absence fails	Temporary absence counts at home.
All gains get 15%	Short term ordinary; LT may split 0/15/20.
Both jobs get SS cap	One cap per taxpayer; wages first.
NIIT on all NIIT	Lesser of NIIT and MAGI excess.
AMT simply added	Only excess of alternative over regular.
Phase-out guessed	Stepwise vs proportional rule.

FOUR-LINE ANSWER SCAFFOLD

- CLASSIFY: item / person / income character
- RULE: test, base, cap, threshold
- COMPUTE: substituted numbers + intermediate result
- CONCLUDE: result + one check

FINAL CHECK Parts reconcile? Correct denominator? Any boundary split?

Ultra-fast recall2026 FIGURES

ANCHOR	FIGURE
Std S/MFS · MFJ · HOH	\$16,100 · \$32,200 · \$24,150
QR gross income	<\$5,300