Errata and Updates for ASM Exam ALTAM (Fourth Edition) Sorted by Page

[9/10/2026] On page 3, on the fifth line of the page (formula for μ_{x+s}), change ${}_xp_x$ to ${}_sp_x$.

[12/9/2025] On page 13, 2 lines above Example 2A, change "nonsmokers" to "smokers" two times.

[9/20/2026] On page 461, 3 lines from the bottom on the last line of the table, change x from 45 to 44.

[11/8/2025] On page 477, in the solution to exercise 24.7, on the second line, change 2012 to 2022.

[9/23/2026] On page 491, 11 lines from the bottom, change the line to:

Third year salary is $60{,}000(1.03^2) = 63{,}654$. The normal contribution rate is $3{,}116.27/63{,}654 =$ **0.04896**.

[9/23/2026] On page 492, change the first line to

The normal contribution rate is $7{,}582.96/63{,}654 =$ **0.11913**.

[9/23/2026] On page 489, in Example 27B, on the last two lines, change "using the projected unit method and using the projected unit method" to "using the traditional unit method and using the projected unit method".

[10/12/2026] On page 581, in the first table, in the AV_{t-1} column with $t = 3$, change 5089.69 to 5389.69.

[10/13/2026] On page 588, in exercise 30.13(i), change AV_{10} to AV_9.

[10/13/2026] On page 592, in exercise 30.24, on the third line, change 1000 to 700.

[10/13/2026] On page 593, in the solution to exercise 30.7, on the first line, change 6% to 5%.

[10/13/2026] On page 597, in the solution to exercise 30.24,

- On the first line, change "10-year term" to "whole life".
- Change the first displayed formula to

$$100{,}000A_{55} - 700(\ddot{a}_{55} - 1) = 100{,}000(0.23524) - 700(16.0599 - 1) = 12{,}982.07$$

- On the last line, change the final calculation to $12{,}982.07 - 2{,}715.62 =$ **10,266.45**.

[10/12/2026] On pages 601–603, the surrender charges in the profit calculations are incorrect.

Here is the corrected version of the second table on page 601:

Year	Premium Charge	Expenses	Interest	Management Charge	Surrender Charge	Expected DB	Maturity Benefit	Profit
0		800.00						−800.00
1	50.00	0.00	3.00	64.15	5.26	2.64	0.00	119.77
2	50.00	126.41	−4.58	132.60	8.69	6.00	0.00	54.30
3	50.00	154.59	−6.28	205.65	10.10	10.16	0.00	94.72
4	50.00	184.66	−8.08	283.59	9.28	15.18	0.00	134.95
5	50.00	216.74	−10.00	366.75	6.00	21.14	0.00	174.86
6	50.00	250.98	−12.06	455.49	0.00	28.13	0.00	214.32
7	50.00	287.51	−14.25	550.18	0.00	36.24	0.00	262.18
8	50.00	326.49	−16.59	651.21	0.00	45.57	0.00	312.56
9	50.00	368.08	−19.08	759.02	0.00	56.24	0.00	365.62
10	50.00	412.46	−21.75	874.06	0.00	68.37	0.00	421.47

Here is the corrected version of the first table on page 602:

Year	$q_x'^{(d)}$	$q_x'^{(w)}$	${}_{t-1}p_x^{(\tau)}$	Profit	Π_t
0			1	−800.00	−800.00
1	0.0050	0.02	1.0000	119.77	119.77
2	0.0055	0.02	0.9751	54.30	52.95
3	0.0060	0.02	0.9503	94.71	95.61
4	0.0065	0.02	0.9257	134.95	124.93
5	0.0070	0.02	0.9013	174.86	157.61
6	0.0075	0.02	0.8771	214.32	187.98
7	0.0080	0.02	0.8531	262.18	223.67
8	0.0085	0.02	0.8294	312.56	259.23
9	0.0090	0.02	0.8059	365.62	294.65
10	0.0095	0.02	0.7827	421.47	329.87

Here is the corrected version of Table 31.2 on page 603:

Year	Premium	Expenses	Interest	Mngmnt Charge	Surr Charge	EDB	Maturity Benefit	Profit	Persistency	Π_t
0		800.00						−800.00	1	−800.00
1	50.00	0.00	3.00	61.78	5.06	2.54	0.00	117.30	1	117.30
2	50.00	125.43	−4.53	125.25	8.20	5.67	0.00	47.83	0.9751	46.63
3	50.00	151.56	−6.09	190.48	9.35	9.41	0.00	82.77	0.9503	78.66
4	50.00	178.41	−7.70	257.49	8.42	13.78	0.00	116.03	0.9257	107.41
5	50.00	206.00	−9.36	326.36	5.34	18.81	0.00	147.52	0.9013	132.97
6	50.00	234.35	−11.06	305.47	0.00	18.86	0.00	91.20	0.8771	80.00
7	50.00	225.75	−10.55	375.65	0.00	24.74	0.00	164.61	0.8531	140.44
8	50.00	254.64	−12.28	447.77	0.00	31.34	0.00	199.50	0.8294	165.47
9	50.00	284.33	−14.06	521.87	0.00	38.67	0.00	234.81	0.8059	189.23
10	50.00	314.83	−15.89	598.00	0.00	46.77	764.34	−493.83	0.7827	−386.51

On page 602, on the first line, change the expression $0.02(0.03)(16{,}931.57) = 10.16$ to $0.02(1-0.006)(0.03)(16{,}931.57) = 10.10$. On the line under the first table, change 201.84 to 197.42. On the third line from the bottom, change −311.82 to −314.17.

[9/29/2026] On page 637, in the solution to exercise 34.7, on the last line, change $e^{-0.04(6)}$ to $e^{-0.03(6)}$, and change the final answer from 7580.4 to 8471.0. Thus the last line reads:

$$\pi(4) = 50{,}000(0.52)\left(e^{-0.03(6)}(0.70416) - 0.9(0.886741)(0.32874)\right) = \boxed{\mathbf{8471.0}}$$

[9/29/2026] On page 652, in the solution to exercise 35.4, in the last displayed line, $(0.995 \cdot 0.995)^k$ should be $(0.995 \cdot 0.985)^k$, but the subsequent calculation is correct. Two lines below that displayed line, 1.1^{10} should be 1.1^4 and 0.985^{10} should be 0.985^4, affecting all calculations thereafter. The corrected solution, start after the line starting with "GMMB value", is

The value of 1 per year, taking into account mortality of 0.005 and a management charge of 0.015 of assets, is

$$\sum_{k=0}^{9}(0.995 \cdot 0.985)^k = \frac{1-0.980075^{10}}{1-0.980075} = 9.14939$$

So the risk premium is $35{,}823/9.14939 = 3915$. (This means that the percentage risk premium is $3915/100{,}000 = 0.3915\%$, which is greater than the management charge, so the product appears to be money-losing)

The other cash flows are the management charge and expenses. The fund at time 4 is $100{,}000(1.1^4)(0.985^4) = 137{,}821$. Thus

Management charge	$137{,}821(0.015) = 2067$
Expenses	$137{,}821(0.005) = 689$
Risk premium	3915

Cash flows add up to $2067 - 689 - 3915 = \boxed{\mathbf{-2537}}$.

[9/29/2026] On page 704, in the solution to exercise 34.7, on the last line, change $e^{-0.04(6)}$ to $e^{-0.03(6)}$, and change the final answer from 7580.4 to 8471.0. Thus the last line reads:

$$\pi(4) = 50{,}000(0.52)\left(e^{-0.03(6)}(0.70416) - 0.9(0.886741)(0.32874)\right) = \boxed{\mathbf{8471.0}}$$

[12/22/2025] On page 755, in the solution to question 1(a), in the numerator of the displayed line, change ${}^{t-1}_{+}VP$ to ${}_{t-1}V + P$.

[12/7/2025] On page 850, in the solution to question 6(b), on the second line, change xi to ξ.

[12/7/2025] On page 851, in the solution to question 6(c), replace the last two lines with

However, for every account last year, p_{50} accounts survived, so we divide 1460 by p_{50} to calculate the amount needed per surviving account. $p_{50} = 1 - 0.001209 = 0.998791$, and $1460/0.998791 = 1462$. So the rehedging cost is

$$1363 - 1462 = \boxed{\mathbf{-99}}$$

[10/12/2026] On pages 863–864, replace the solution to question 6(e) with the following:

(i) The benefit base is $20{,}000\ddot{s}_{\overline{10}|}$ where the annuity is calculated at $i = 0.05$, so it equals

$$20{,}000\left(\frac{1.05^{10} - 1}{0.05/1.05}\right) = 264{,}135.7$$

The annual payment is $264{,}135.7(0.112) = \boxed{\mathbf{29{,}583.2}}$.

(ii) Market annuity rates may be higher than 11.2% and may result in a higher annual payment. In this question, the benefit base may be lower than the final account value. In that case, the policyholder may get a higher annual payment even if market interest rates are somewhat less than the guaranteed rate. However, the study note states that the benefit base is always at least as high as the final account value.

[5/1/2026] On page 873, in the solution to question 2(c), the positive signs before 0.04 and 0.1 should be changed to negative signs:

$$\frac{\mathrm{d}_t V^{(1)}}{\mathrm{d}t} = \delta_t V^{(1)} - 10{,}000 - 0.04(120{,}000 - {}_tV^{(1)}) - 0.1(100{,}000 - {}_tV^{(1)})$$

[5/1/2026] On page 875, in the solution to question 5(a), in the fourth bullet, change $\ddot{a}^{65}$ to $\ddot{a}_{65}$.

[12/10/2025] On page 876, replace the solution to question 6(c) with the following:

The Benefit Base grows to $100{,}000(1.03^{10}) = 134{,}391.6$ at the end of 10 years. The fund values are 103,000 at time 3 and 140,000 at time 6, so the guarantee is stepped up to 140,000. This is higher than the ultimate value of the benefit base, so 140,000 is the value we will use.

You don't have enough information to calculate the value of a whole life annuity at 8%; the mortality tables you get at the exam stop at age 100. So we use the crude underestimate of 8% of the guarantee, or $0.08(140{,}000) = \boxed{\mathbf{11{,}200}}$.