## Corrections for First Edition, First Printing (2021)

### Important corrections

**On p. 19, last line**: The condition all entries under a pivot are zero should be replaced by the condition a pivot in a lower row is further to the right than a pivot in a higher row.
**Comment**: In many cases, the conditions are equivalent. But there are examples where this is not the case, such as the following matrix (which is **not** in echelon form):

$$A = \begin{pmatrix} 0 & 1 \\ 1 & 0 \end{pmatrix}$$

**On p. 75, in the proof of Prop. 3.11**: The first sentence in the proof should be replaced by the following text: Let $r$ be the rank of $A$, and write $\text{Row}(A)$ for the row space of $A$, the vector space spanned by the row vectors of $A$. Since the row space is preserved under elementary row operations, and the row space of an echelon form has the non-zero rows as a base, it follows that $\dim \text{Row}(A) = r$. We can therefore find $r$ linearly independent rows in $A$, and write $I$ for any choice of $r$ linearly independent rows, and $J$ for the columns with pivot positions. In the second last line of the proof, the text with $s$ pivot positions should be replaced by with $s$ linearly independent rows.
**Comment**: The original text give a correct argument in many cases, but not all. Note that elementary row operations may change which rows are linearly independent, for instance when two rows are interchanged.

**On p. 99, first line of third paragraph**: In the definition, the words irreducible and primitive should be interchanged.

### Minor corrections

**On p. 11, second line of first paragraph**: The word v//tgcqaribles should be variables.
**On p. 29, displayed line below the middle**: In the set $V$ of solutions, $(x, y, z)$ should be $(x, y, z, w)$.
**On p. 40, in the proof of Prop. 2.1**: The text formulas 2.1 - 2.1 should be formulas on the previous page.
**On p. 96, first line of Section 4.4**: The text positive integer should be a positive integer.
**On p. 99, second line**: In the first matrix, in the second column, both positions, $40.85^m$ should be $4 \cdot 0.85^m$.
**On p. 135, displayed line below the middle**: In the formula for $D_3$, $12x^2 + 12z^2$ should be $48x^2 + 48z^2$ in the first line, and $24x^2 + 24z^2$ should be $96x^2 + 96z^2$ in the second line.
**On p. 137, second line**: The linear part $\cdots + 2y + 4z + \ldots$ should be $\cdots - 2y - 4z + \ldots$ in the functional expression $f(x, y, z)$.
**On p. 143, Problem 5.1**: Part e) and f) should be omitted, as they are identical to Problem 5.2.
**On p. 161, first case**: In the last sentence, $(1, 1, 2; 3, 5)$ should be $(2, 1, 1; 3, 5)$.
**On p. 164, second paragraph after the proof**: In the second line, $(1, 1, 2; 3, 5)$ should be $(2, 1, 1; 3, 5)$.
**On p. 210, Equilibrium States**: In the second paragraph, the difference equation $y_{t+1} = (1 + r)y_t + b$ should be $y_{t+1} = (1 + r)y_t - b$. In the last displayed equation, $r/b$ should be $b/r$ (both places). In the last line, If $r > 0$ should be If $r \leq -2$ or $r > 0$. In the last two lines of Section 8.3 on the next page, $r < 0$ should be $-2 < r < 0$.
**On p. 234, in the proof of Lemma A.2**: In the third line, in the start of the displayed equation, $|z_1 z_2|$ should be $|z_1 z_2|^2$.