#### **GHANA COMMUNICATION TECHNOLOGY UNIVERSITY**



# FINAL RESULTS FOR 2022/2023 ACADEMIC YEAR (COLLEGE OF SCIENCE)

### **PROGRAMMES**

- I. Bsc. Information Technology
- 2. Bsc. Mobile Computing



## GHANA COMMUNICATION TECHNOLOGY UNIVERSITY UNDERGRADUATE PROGRAMME IN INFORMATION TECHNOLOGY FINAL RESULTS FOR THE ACADEMIC YEAR 2022/2023

The following students having:

- (i) achieved a minimum of 140, 106, 68 credit hours for the top up
- (ii) passed all required courses
- (iii) obtained a Cumulative Weighted Average (CWA) of 45.00 or above,
- (iv) satisfied all other requirements of the Department and Faculty Boards are recommended for the award of Bachelor Science in Information Technology in the classes indicated below:

S.N.	INDEX NUMBERS	NAME OF STUDENTS
		FIRST CLASS HONOURS
I	040919810	PADI, John Tetteh
2	040919607	KLUTSEY, Fortune Akpene (Miss)
3	040919602	ADONU, Sony Dickson
4	040919427	DONKOR, William
5	040919669	IBRAHIM, Razak
6	040919308	KOFFEL, Jean Michel
7	040919469	NYAMADI, Winston Derrick Kwami
8	040919065	FORSON, Silas
9	040919109	GBAFA, Wisdom
10	040919780	DUAH, Prince Kwaku
П	040919671	MILLER, Prince Bortey
12	0401200054	DENKYI, Bright Acheampong
13	040919224	ASHLEY, Lesily Nii Martei
14	040919899	ONADEY, Selina (Miss)
15	040919196	SALIFU, Joshua Venkumwin
16	040919422	AKAFIA, Carl Mliwomor
17	040919650	YEBOAH, Derrick
18	040919290	BOATENG, Jedidiah Darko

19	040919036	ADAMPTEY, Lydia Mensah (Miss)
20	040919967	USMAN, Abubakar Saddig
21	0401200058	OWIREDU, Ebenezer Nana Kwame Baiden
22	040919514	OPOKU, Bright
23	0401200154	AGYEI, Daniel
		SECOND CLASS HONOURS (UPPER DIVISION)
24	040919355	BINEY, Kwadwo
25	040919979	AYERTEY, Joel Teye-Daklo
26	040919751	BOAMAH, Morrison Boakye
27	040919423	HAGAN, Oscar
28	040919546	SARKWAH, Bondzi Kwaku
29	040919769	BAAFI, Emmanuel
30	040919063	ASARE, Alexander
31	0401200036	KALATE, Calvin Etornam
32	040919380	ASAMOAH, Kelvin
33	040919475	OSAE, Benjamin Tanoh
34	040919304	ABDUL SALAM, Seidu
35	040919438	OGBONNA, Philip
36	040919864	TETTEH, Joshua
37	040919431	AMEMASOR, Caleb Elikem
38	040919941	ANSAH, Paul Kwaku
39	040919370	PADI-NARH, Nyarkomah Afriyie (Miss)
40	040919927	OFORI, Nicholas Frimpong
41	0401200050	BAAH-YEBOAH, Samuel
42	040919866	LUMUMBA, Samuel Vorvor
43	040919608	MENSAH, Elliot Confidence
44	040919054	ODAME, God'spower
45	0401200223	ALABI, Charles
46	040919668	AFRIYIE, Lucia (Miss)
47	040919756	GEPOASE, Ruth (Miss)
48	040919271	DUEDU, Felix

49	040919184	KATCHER, Francisca (Miss)
50	040919017	MENSAH, Sarah Momo (Miss)
51	0401200157	LARBI, Richard Nyinaku
52	040917460	AGYEI, Eric Kwasi
53	040919350	ASARE, Priscilla (Miss)
54	0401200141	AMOA, Chris Acqua
55	040919713	DADZIE, Prince Baah
56	040919709	ANNOBIL, Samuel Reginald
57	040919218	CANATHY, Patrick Kofi
58	040919134	AFRIFA, Emmanuel
59	040917074	PHOLIE, Esther Emefa (Miss)
60	040919768	ASMAH, Rita (Miss)
61	040919711	APPIAH, Samuel
62	040919361	HAYFORD, Denzel
63	0401200045	GAISIE, Emmanuel Kofi Gyasi
64	040919232	ACHEAMPONG, Alfred Ofori
65	040919012	DOMPREH, Chrysolite (Miss)
66	0401200288	LAMPTEY, Jonathan
67	040919432	DUFE, Paul
68	040919174	SOLLY, Emmanuel Adjei
69	0401200047	TANKO, Osman
70	040919416	HAGAN, Shantel Mercy (Miss)
71	040919997	ARMAH, Felix
72	040919022	DENKYI, Godfred Boateng
73	040919027	APPAU, Chris
74	0401200359	TULASI, Douglas Dzigbodi
75	0401200136	LARTEY, Emmanuel Nii Lartei
76	040919326	OSARDU, Ivy (Miss)
77	040919636	ANTWI, Maxwell
78	040919171	AMANING, Theophilus Ofosu
79	040919282	AMEKA, Marcelline (Miss)

80	040919840	APPIAH, Samuel Djan
81	0401200018	SAM, Francis
82	040919605	MENSAH, Raphael
83	040919078	KWANDA, Mubarak
84	040919383	AGBETOR, Edem Komla
85	040919367	QUAICOE, Philip
86	040919086	TAMAKLOE, Godsway Kwame
87	040919235	ADU-ASARE, Clinton
88	0409190088	YAYRAVI, Michel Angelo
89	0401200020	GBADAGO, Franklin
90	0401200011	SOKARI, Nengi
91	040919082	KWARTENG, Clifford Yeboah
92	0409190025	IDDRIS, Hafsa (Miss)
93	0401200100	ABUSAH, Daniel Kwame
94	040918753	MENSAH, Joseph
95	0401200001	BOAKYE, Richmond
96	040919163	ADJAOTTOR, Lawerh Joseph
97	040919111	ADOM, Benjamin
98	040919486	ISMAEL, Kudiratu Handaria (Miss)
99	040919737	AHLIJAH, Esther Kafui (Miss)
100	0401200201	QUARSHIE, Joshua Nii Trebi
101	040919336	AMOABENG, Emmanuel Asante
102	0401200089	BAWAH, Abdull-Hakeem
103	0401200014	NARTEY, Hillary Jimakie (Miss)
104	040919862	GBEMU, Ebenezer
105	040919004	FORSON, Isaac Mensah
106	0401200253	DIAMEH, Moses Kwame
107	040919421	BEASAH, Eric
108	0409190086	BOAKYE, Dominic
109	040919732	KPODO, Caleb Etornam
110	0401200068	ASHONG, Sylvanus Caesar

Ш	040919059	ACQUAH, Ebow Edisi
112	040919585	AMOAKO, Christiana (Miss)
113	040919173	OSEI BONSU, Ignatius
114	040919710	MBA, Richmond
115	040919445	ASARE, John Andrews Kweku
116	0401200169	BAIDOO, Justice
117	0401200176	AMANKWAA TAWIAH, Abena Adutwuwaa (Miss)
118	040919373	TAGOE, Victor Nii Addokwei
119	040919035	MENSAH, Bismark
120	040919568	ASINOR, Samuel Oppong
121	040919033	TWUM, Alexander Adjei
122	040919526	ADAMS, Believe Mawuse (Miss)
123	040919122	AHMED, Rafatu Sulleiman (Miss)
124	040919118	AFOAKWA, Philip Asante
125	040919749	AMOAH, King David
126	040919809	FELBAH, Flora Adjoa (Miss)
127	040919100	APRAKU, Emmanuel Opoku
128	040919571	BOTCHWEY, Solomon
129	040516065	ANSAH, Michael
130	040919434	ADORBLI, Divine
131	040916489	MENSAH, Isaac Lord
132	040919687	OSEI, Richard
133	040919315	YAKUBU, Salifu Boforo
134	040919758	OCQUAYE, Bernice (Miss)
135	040919158	ABBAN, Bismark
136	040919583	MENSAH, Nana Akosua Foriwa (Miss)
137	040919697	OBENG-KYEI, Aaron Kojo
138	040919851	AGYEKUM, Kwame
139	040917161	ENNINFUL, Owen
140	040918081	INCOOM, Ishmael Vital
141	0401200097	MOLAI, Daniel Adotey

142	040919009	ANKRAH, Samuel Nii
143	0401200116	DZEBLE, Justice
144	040919226	DONKOR, Raphael
145	040919135	RANDOLPH, Ronald
146	040919371	ANKU, Priscilla (Miss)
147	0401200051	FIATUSEY, Gifty Delali (Miss)
148	0401200114	RENNER, Andrew
149	040919490	APPIAH, Gifty Nyamekye (Miss)
150	040919898	ANING, David Wiafe
151	040919347	OFOSU, Richard
152	040919483	ARLOO, Prince Nana Kobena
153	040919119	KWARFO, Michael Acheampong
154	0401200010	ADISI, Russell Nana Omari
155	0401200064	DARKWA, Bright
156	0401200289	KPEKPO, Benedict Edem
157	040118054	KORANTENG, Samuel Mireku
158	040118281	PHILIP, Triku Kwasi
159	040919140	AGBEMENYALE, Rockson Kwasi
160	040918085	OFFEI-AGYEMANG, Kwabena
161	0401200128	OWUSU ANSAH, Collins
162	040919744	AYERTEY, Martey Samuel
163	0401200244	ADAMTEY, Samuel Osborn
164	0401200106	JACQUES, Morris Kwaku
165	040916125	OPPONG BOATEMAA, Nana Akua Mimi (Miss)
166	0401200072	TEKPETEY, Richard Narteh
167	040919448	FRIMPONG, Clement Kofi
168	040919093	QUAO, Emmanuel Nii
169	040919728	OSEI, Festus Acheampong
170	040919592	ALLOTEY, Prince Akwei
171	040919287	ADJEI, Marrion
172	040919010	PAINTSIL, Albert Quaye

173	040919014	DAGAH, Bright
174	040919894	YUSIF, Rukaya (Miss)
175	040916588	BOATENG, Eric Kofi
176	0401200159	DAUTEY, Hannah (Miss)
177	040115173	ONWUZULIKE, Anthony Nkemjika
178	040919721	BENTIL, Agyaful Jojo
179	040919382	ABBAN, Joseph Kwamena
180	0401200026	AMENYITOR, Charles Kwesi
181	B020913344	WOUBEY, Komi Dogbeda
182	040919208	SINTIM-ABOAGYE, Mark
183	040919436	MERHIBI, Darian Nafez
184	040919539	ANSONG, Emmanuel Gideon Debrah
185	0401200019	OFORI QUAYE, Emmanuel
186	040919207	DZAH, Kingsford
187	040919911	ASARE, Richmond Teye Nyemignor
188	040919488	ANINKORAH, Samuel Yaw Jnr
189	040919343	OFORI, Gideon
190	040919353	TEYE, Gerald Adjei
191	0401200032	ASUMADU, Moses Kwadwo Okran
192	040919770	YEMOH, Imran Odoi
193	040919577	BOATENG, Gertrude Ohene (Miss)
194	0401200277	BABATUNDE, Edmond
195	040919977	COFFIE, Albert
196	0401200345	ABROKWAH, Ernest
197	040919260	ADU-GYAMFI, Nicholas
198	040919612	TORSOO, Delove
199	040919061	OKYERE, Patrick
200	040919049	ABABIO, Bless
201	040919105	OMAN, Rebecca Korkor (Miss)
202	040919221	ASANTE, Edmund Kwabena Ansong
203	040919480	SETORDZIE, Alphonce

204	040919795	KOE, Prosper Selasi
205	040919294	ABUBAKAR, Kennedy Wusunanwa
206	040919425	DOE, Esther Ashieta (Miss)
207	040919206	AGYEKUM, Kennedy Omane Snr
208	040919903	AKOTEY, Emmanuel Kobby
209	040919395	BEDZINA, Morris Kafui
210	0401200198	ADU, Prince Agyapong
211	040919374	ABAKA, Hellen Adjeiba (Miss)
212	0401200213	NEEQUAYE, Kelvin
213	040919670	SALIFU, Salim
214	040919532	KUDOLO, Jerome
215	0401200074	NYADZI, Belinda (Miss)
216	040919896	YEBOAH, Emmanuel Kwabena
217	040919266	YEBOAH, Emmanuel
218	040919541	DANFUL, Gloria Ahwirengma (Miss)
219	040917208	BEMBIR, Emmanuel Annan
220	040919291	ADDI, Raphael Tetteh
22 I	040919265	OTOO, Dawuda
222	040919991	MENSAH, Michael Frankson Teye
223	040919814	AMOAKO-ADU, Joel
224	040919584	ADJANOR, Ephraim David
225	0409190055	KUMAH, Dzidefo
226	0401200007	ASARE, Ephraim Okoh
227	0409190034	MWANYOMBET, Mehdi
228	040919641	AFRIFA, George Darko
229	040919812	MOHAMEED, Farouk Balima
230	040919153	OBENG, Patrick
231	040919385	OSEI, Claudia Beremah (Miss)
232	0401200319	ANNANCY, Harold Asare
233	040919891	PONEDONG, Ernest
234	040919867	TAKYI, Genevieve Appiah (Miss)

235	040919342	AMOFA, Mary Efia (Miss)
236	0401200275	DORNYO, Nicholson Selassy
237	040919339	ANSAH, Ehrick Ebo
238	0401200290	ACHEAMPONG, Esther Obenewaa (Miss)
239	040919098	TETTEH, Ebenezer Kofi
240	040919104	OSABUTEY, Cornelius
241	040918425	ASARE-MENYAH, Emmanuel Nii Lartey
242	0401200056	KLUFIO, Kelvin Mensah
243	040919523	SHITOR, Christian Kwami
244	0401200030	SEMABIA, David
245	040919522	BANI, David
246	040919197	AGBETSISE, Hope Mawutor
247	040919834	QUAYNOR, Elvis Tettey
248	040919477	OFORI, Jude Nii
249	0401200214	DOGBEY, Ricky Yao
250	040917310	BOADU, Samuel
25 I	040919430	AGBANYO, Precious
252	0401200048	OCANSEY, Evans
253	040919515	HADIR, Idriss Zaid Adam
254	040919064	ZOIKU, Anita (Miss)
255	040919524	ADOR, Foster Alphar
256	040919503	OFORI, Camilo Hans Mensah
257	040919313	HANSON, Fredrick
258	0401200247	NETTEY, Emmanuel Akai
259	0401200186	ABROKWAH, Bright Sizzla
260	040919773	ADOM, Emmanuel Amoako
261	040919254	PETERS, Derrick
262	0409190036	NOMAH, Martin
263	0401200034	ADAMS, Marvin Okai
264	040919396	ADAMS, Zenat Larriba Akua (Miss)
265	040919726	DANSO, Kelvin Kwadwo Helary

266	0401200065	EWOOL, Dennis
267	040919931	ASARE, Albert Lartey
268	040919334	BOATENG, Benneth
269	0401200069	TORDZRO, Frank Kwaku
270	040919397	NUNOO, Enoch Nii Ahene
271	0401200264	ISSIFU, Awal
272	040918440	VORVOR, Philip Seyram
		SECOND CLASS HONOURS (LOWER DIVISION)
273	040918444	DORWU, Grace (Miss)
274	040917363	OFORI, Daniel Kodjo
275	0401200273	AMO-YARTEY, Agnes Kuukua (Miss)
276	0401200300	WOYOME, Elkanah Gardner Xorvey
277	040919702	AFFLU, Edinam Kwaku
278	040919181	OSEI, Constance Obenewaah (Miss)
279	040918422	ANKRAH, Nii Okai
280	040919229	APPAUH, Emmanuel
281	0401200118	APPIAH, Anthony Jnr
282	040919384	BOBOLI, Elorm Kwasi
283	040919222	OFORI, Bright
284	040918442	AGBOZO, Benedicta Nyatepe (Miss)
285	040919540	SACKEY, Darius Edwin
286	040119062	BOTWE, Emmanuel Obuobi
287	040919411	GYEKYE, Samuel Akwesi Sarpong
288	040919821	BRUCE, Joel Nhyira
289	0401200142	ANNAN, Daniel Kwabena Nartey
290	040919819	ADUSEI, Jeffson
291	0401200243	SAEED, Moro
292	040919449	KUGBLENU, Gerald
293	0401200024	BANAANGMEN, Rose (Miss)
294	0401200038	AYIEB, Fortunate
295	040917621	OWUSU-YEBOAH, Ronney

296	040119259	DRAVIE, Raymond Romeo
297	040919980	OFORI, Nathaniel Twumasi
298	040919447	AYATEY, Edem Jesse
299	040919220	NKANSAH, Daniel Dwamena
300	040917795	GOZZAH, Raphael
301	040116193	ADDO, Sylvester Dankwah
302	040919926	MARFO, Prince Kofi
303	040919013	AMFO-SAKYI, Obenewah (Miss)
304	040919662	BAIDOO, Joseph
305	040919155	ABALLO, Jewel Fafa (Miss)
306	0401200234	TETTEH, Gabriel
307	040918318	AFFUM, Ernest
308	040919311	AYATA, Mohammed Iddrisu
309	0401200035	MENSAH, Frederick Kofi
310	0409190040	ADAMSON, Richard Kwabena
311	0401200080	AMUZU, Cornelius
312	040919593	OHEMENG, Jebless Fiifi
313	040919696	PARDIE, Bismark Tettey
314	040919971	OGBAMEY, Kelvin Nii
315	040919249	OKINE, Joel Lionel
316	040919853	AFRAM, Bossman Ofosu
317	0401200303	BOSSO, Mac-Olga Morkporkpor
318	040919189	AWUSI, Isaac Sebastian
319	040919030	ANKRAMAH, Ernest
320	040919922	ABBEY, Bernard Kufour
32 I	040919252	OSEI, Michael
322	040919040	NSIAH, Naomi Kwakyiwaah (Miss)
323	040919932	ABREDU, Martin Boateng
324	0401200043	DAMALIE, Daniel Delali
325	040919275	NTUMI, Priscilla Aku (Miss)
326	040919906	APOLLOS, Precious

327	040919664	KORANTENG, Emmanuel
328	040919225	QUARTEY, Isaac
329	040919299	KUUPULUZIE, Simon
330	0409190010	NUHU, Tahiru
33 I	040919786	ASARE, William Kyei
332	040919887	APPIAH-OFORI, Emmanuel Baffoe
333	0401200095	ADDOTEY, Gertrude (Miss)
334	040919159	ODEI, Seth Okai
335	040919874	BOATTEN, Kwaku Konadu
336	040919884	ANVUUR-BILLY, Prince Kobby
337	0401200053	BAAH, Michael Nyarko
338	040919126	ACOLATSE, Abdul Karim Nabil Atsu Fui
339	040919628	DONKOR, Emmanuel Tetteh
340	0401200241	NYANFUL, Daniel
341	040919830	OPOKU, John
342	0401200224	MEDI, Divine Benson
343	040919781	ADAMS, Abdul Hanan
344	040919499	ANKRAH, Solomon
345	040919390	ANKOMAH, Jerry Asante
346	040119110	ADU GYAMFI, Prince
347	040919841	OBENG, Michael
348	040919923	KOUFIE, Shadrack
349	040919237	FARUKU, Yarima Salaga Zam - Atu
350	040119214	QUAINOO, Kelvin Kengi
35 I	040919096	ANALA, Ikililu Mohammed
352	0401200254	AMUSE-ANANI, Christian Kofi
353	040915051	BRUCE-QUANSAH, Kobina Ebo Kakraba
354	040919877	OKAI, Marrion
355	040919057	BIRE, Daniel Yenshirah
356	040919120	AMOAH, Richard Kwabena
357	040919331	ZAKARI, Ishmeal

358	040919325	ESSUMAN, Isaac Agyakoh
359	040919007	MAHAMA, Adnan Mohammed
360	040119135	GABIENU, Prince
361	040919133	ACQUAH, Isaac
362	040919508	FRIMPONG, Kenneth Nana
363	040919643	DONKOR, Francis Kofi
364	040919986	GANAGODO, Victoria (Miss)
365	040119116	FOSU, Richard Junior
366	040918472	ARTHUR, Wilberforce Abue
367	040917747	BOYE DOE, George
368	040919393	OKYERE, Raymond
369	0401200070	AMPOFO, Daniel Ofori
370	040919045	ABUBAKAR, Taofick Bachalah
37 I	040919946	SEIDU, Ahmed
372	040919389	AMOATENG, Emmanuel
373	040919161	OSSOM, Richard Narh
374	040919518	GYAMFI, Douglas Yaw
375	040919244	ADJEI, Karen (Miss)
376	040918063	AKO-ADDO, Victor
377	040919517	OFORI, Samuel
378	040919502	AGYEI, David Akoto
379	040919645	ADDAE, Terry Ntiamoah
380	040917185	AFFUL, Isaac Cecil
381	040916563	GADA, Justice Kwabla
382	040918358	AMRAMAH, Emmanuel
383	040919777	TETTEH, Ebenezer Batsa
384	040919484	CONDATERE, Jesse
385	040918676	${\sf ADENYO,GodwinDziedzorm}$
386	040917345	GLASU, Daniel Desmond
387	040118098	ARMAH, Daniel Nii
388	040919131	AYIM, Edwin

389	040918035	KESSIE, Gabriel Kwaku Ankrah
390	040918331	DANSO, Theodore Kwame
391	040919141	AGBENYO-DAWFOR, Senya Kofi
392	040114255	PYNE, Paisa
393	040118024	BANNI, Michael Yaw
394	040119240	ADEKPUITOR, Mawufemor
395	040919195	NARTEY, Nancy (Miss)
396	040918278	FORDJOUR, Augustine
397	040919740	MASSEY, Mark Anthony
398	04TU119055	MORKLE, Michael Dela
399	040117277	SUSUKPOR, Emmanuel
400	040919190	KPENTEY, Joshua Deladem
<b>4</b> 0 I	040918267	ADJEODA, Jones-English Edem
402	0401200111	SULEYMAN, Shaibu Danlarmine
403	040919917	KODA, Abdul Karim
404	040117141	OWUSU, Lemuel Gyekye
405	B020913218	NYAME, Fred
406	040916614	BOSO, Peter Kweku
407	040919068	BOATENG, Dennis
408	040917329	DARKO, William
409	040917320	AKROFI-BOADU, Benjamin
410	B020913229	AGYAPONG, Benjamin Kwabena Andoh
411	040919558	KUMORDZI, Esinam (Miss)
412	040915624	AMPOMAH, Chester Baffour
413	040114235	SASSEY, Festus Dela
414	040118181	MOHAMMED, Zeinu
415	040918022	ARONGO, Mark Mba
416	040118191	AGBEZUGE, Quist Lasky
417	040917642	ABDULLAI, Musah
418	040918639	ABEYIE, Christian Owusu
419	040919625	ASARE, Bismarck Obeng Darko

420	040918149	ADJEI, Kelvin Fiifi
<b>421</b>	040917587	OPOKU, Bismark Appiah
422	040918589	SARFO, Patrick Nana
423	040119138	IBRAHIM, Yusif
424	040114368	OWUSU, Grant Agyekum
425	040117129	BROWN, Kelvin
		PASS
426	040916635	BOATENG, Nana Aboagye
427	040918630	AMPAW, Emmanuel

These results are published subject to the approval of KNUST Academic Board.

Prof. Emmanuel Ohene Afoakwa Vice-Chancellor and Chairman Academic Board

Date: 13th June, 2024.



## GHANA COMMUNICATION TECHNOLOGY UNIVERSITY UNDERGRADUATE PROGRAMME IN MOBILE COMPUTING FINAL RESULTS FOR THE ACADEMIC YEAR 2022/2023

The following students having:

- (i) achieved a minimum of 146, credit hours
- (ii) passed all required courses
- (iii) obtained a Cumulative Weighted Average (CWA) of 45.00 or above,
- (iv) satisfied all other requirements of the Department and Faculty Boards are recommended for the award of Bachelor Science in Mobile Computing in the classes indicated below:

S.N.	INDEX NUMBERS	NAME OF STUDENTS
		SECOND CLASS HONOURS (UPPER DIVISION)
I	040919305	DARKO, Maame Oye (Miss)
2	040919754	KUNGE, Charles Dylan
3	040919223	LAMPTEY, Nathaniel
		SECOND CLASS HONOURS (LOWER DIVISION)
4	040919288	IBRAHIM, Bashiru Mohammed
5	040919251	ARYEH, Erica Oforiwaa (Miss)
6	040919960	OPOKU, Ernest Boateng
U	010717700	or orto, Erriese Boaterig

These results are published subject to the approval of KNUST Academic Board.

Prof. Emmanuel Ohene Afoakwa Vice-Chancellor and Chairman Academic Board

Date: 13th June, 2024.